# REGISTRATION DOCUMENT

dated 14 December 2017

of

UBS AG
*(a corporation limited by shares established under the laws of Switzerland)*

which may also be acting through its Jersey branch:

UBS AG, Jersey Branch
*(the Jersey branch of UBS AG)*

or through its London branch:

UBS AG, London Branch
*(the London branch of UBS AG)*

This document has been prepared for the purpose of providing disclosure information with regard to UBS AG (the "Issuer") as issuer of debt or derivative securities and constitutes a registration document (the "Registration Document") within the meaning of Art. 5 (3) of Directive 2003/71/EC, as amended, in particular by Directive 2010/73/EU, (the "Prospectus Directive") and § 12 (1) of the German Securities Prospectus Act (*Wertpapierprospektgesetz* – "WpPG") in connection with Art. 14 and Annex XI of the Commission Regulation (EC) No. 809/2004 of 29 April 2004 (the "Regulation").

IMPORTANT NOTICES

This Registration Document has been approved by the Federal Financial Services Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* – "BaFin") in accordance with § 13 (1) of the WpPG after completing a review of this document for completeness, including a review of the coherence and comprehensibility of the information provided. This Registration Document as well as any securities notes or (base) prospectuses, either incorporating information from this Registration Document by reference or of which this Registration Document forms part, are available to the public in printed format, free of charge, at the registered offices of the Issuer. In addition, the Registration Document as well as any securities notes or (base) prospectuses, either incorporating information from this Registration Document by reference or of which this Registration Document forms part, are published on the UBS website, at www.ubs.com/keyinvest or any successor address notified by the Issuer to the Securityholders for this purpose by way of publication on www.ubs.com/keyinvest.

No person has been authorised to give any information or to make any representation not contained in or not consistent with this Registration Document, and, if given or made, such information or representation must not be relied upon as having been authorised by the Issuer, or any trustee or any dealer appointed in relation to any issue of debt or derivative securities by the Issuer.

This Registration Document should not be considered as a recommendation by the Issuer, any trustee or any dealer appointed in relation to any issue of debt or derivative securities by the Issuer that any recipient of this Registration Document should purchase any debt or derivative securities issued by the Issuer. Each investor contemplating purchasing debt or derivative securities issued by the Issuer should make its own independent investigation of the financial condition and affairs, and its own appraisal of the creditworthiness, of the Issuer. No part of this Registration Document constitutes an offer or invitation by or on behalf of the Issuer, any trustee or any dealer appointed in relation to any issue of debt or derivative securities by the Issuer or any of them to any person to subscribe for or to purchase any of the debt or derivative securities issued by the Issuer.

This Registration Document is valid for a period of twelve months from the date of its approval. Neither the delivery of this Registration Document or of any securities notes or (base) prospectuses, either incorporating information from this Registration Document by reference or of which this Registration Document forms part, nor the offering, sale or delivery of any debt or derivative securities shall, in any circumstances, create any implication that there has been no change in the affairs of the Issuer since the date hereof. The contents of this Registration Document will be updated in accordance with the provisions of the Prospectus Directive and the WpPG. Any dealer or trustee appointed in relation to any issue of debt or derivative securities by the Issuer expressly does not undertake to review the financial condition or affairs of the Issuer or its subsidiary undertakings during the life of such securities.

The distribution of this Registration Document and the offer or sale of securities issued by the Issuer may be restricted by law in certain jurisdictions. Persons into whose possession this Registration Document or any securities issued by the Issuer come must inform themselves about, and observe, any such restrictions.

TABLE OF CONTENTS

Page:

Appendix 8 - Excerpts from the UBS Group Third Quarter 2017 Report



Appendix 9 - Excerpts from the UBS AG Third Quarter 2017 Report

## I. Persons Responsible

UBS AG, having its registered offices at Bahnhofstrasse 45, 8001 Zurich, Switzerland, and Aeschenvorstadt 1, 4051 Basel, Switzerland, accepts responsibility for the information contained in this Registration Document and declares that the information contained in this Registration Document is, to the best of its knowledge, accurate and that no material facts have been omitted.

Where this Registration Document contains information obtained from third parties, such information was reproduced accurately, and to the best knowledge of the Issuer - as far as it is able to ascertain from information provided or published by such third party - no facts have been omitted which would render the reproduced information inaccurate or misleading.

## II. Statutory Auditors

Based on article 39 of the articles of association of UBS AG, dated 4 May 2016 ("**Articles of Association**"), UBS AG shareholders elect the auditors for a term of office of one year. At the Annual General Meeting of shareholders ("**AGM**") of 7 May 2014, 7 May 2015, 4 May 2016 and 2 March 2017, Ernst & Young Ltd., Aeschengraben 9, CH-4002 Basel ("**Ernst & Young**") were elected as auditors for the consolidated and standalone financial statements of UBS AG for a one-year term.

Ernst & Young is a member of EXPERTsuisse, the Swiss Expert Association for Audit, Tax and Fiduciary.

## III. Risk Factors

*Investing in the debt or derivative securities of the Issuer involves certain issuer-specific risks. Investments in debt or derivative securities of the Issuer should not be made until all these risk factors have been acknowledged and carefully considered. When making decisions relating to investments in the debt or derivative securities of the Issuer, potential investors should consider following risks factors in respect of the Issuer, which may affect the Issuer's ability to fulfil its obligations under its debt or derivative securities and, if necessary, consult their legal, tax, financial or other advisor.*

*Prospective investors in any debt or derivative securities of the Issuer should read the entire Registration Document and the relevant summary and securities note, base prospectus or other prospectus, either incorporating information from this Registration Document by reference, containing disclosure on certain debt or derivative securities (and where appropriate, the relevant summary note applicable to the relevant debt or derivative securities).*

As a global financial services provider, the business activities of UBS AG ("**Issuer**") with its subsidiaries (together, "**UBS AG (consolidated)**" or "**UBS AG Group**"; together with UBS Group AG, which is the holding company of UBS AG, "**UBS Group**" "**Group**", "**UBS**" or "**UBS Group AG (consolidated)**") are affected by certain risks, including those described below, which may affect UBS's ability to execute its strategy or its business activities, financial condition, results of operations and prospects. Because a broad-based international financial services firm such as UBS is inherently exposed to multiple risks many of which become apparent only with the benefit of hindsight, risks of which UBS is not presently aware or which UBS currently does not consider to be material could also adversely affect UBS. The order of presentation of the risk factors below does not indicate the likelihood of their occurrence or the potential magnitude of their consequences.

### General insolvency risk

Each investor bears the general risk that the financial situation of the Issuer could deteriorate. The Securities constitute immediate, unsecured and unsubordinated obligations of the Issuer, which, in particular in the case of insolvency of the Issuer, rank *pari passu* with each other and all other current and future unsecured and unsubordinated obligations of the Issuer, with the exception of those that have priority due to mandatory statutory provisions. The obligations of the Issuer created by the Securities are not secured by a system of deposit guarantees or a compensation scheme. In case of an insolvency of the Issuer, Securityholders may, consequently, suffer a **total loss** of their investment in the Securities.

### Effect of downgrading of the Issuer's rating

The general assessment of the Issuer's creditworthiness may affect the value of the Securities. This assessment generally depends on the ratings assigned to the Issuer or its affiliated companies by rating agencies such as Standard & Poor's Credit Market Services Europe Limited, Fitch Ratings Limited, Moody's Investors Service, Inc. and Scope Ratings AG. As a result, any downgrading of the Issuer's rating by a rating agency may have a negative impact on the value of the Securities.

### Continuing low or negative interest rates may have a detrimental effect on UBS's capital strength, liquidity and funding position, and profitability

Low and negative interest rates in Switzerland and the eurozone negatively affected UBS's net interest income in 2016 and a continuing low or negative interest rate environment may further erode interest margins and adversely affect the net interest income generated by the Personal & Corporate Banking and Wealth Management businesses. UBS's performance is also affected by the cost of maintaining the high-quality liquid assets required to cover regulatory outflow assumptions embedded in the liquidity coverage ratio ("**LCR**"). The Swiss National Bank permits Swiss banks to make deposits up to a threshold at zero interest. Any reduction in, or limitations on the use of this exemption from the otherwise applicable negative interest rates could exacerbate the effect of negative interest rates in Switzerland. Low and negative interest rates may also affect customer behaviour and hence UBS's overall balance sheet structure. Mitigating actions that UBS has taken, or may take in the future, such as the introduction of selective deposit fees or minimum lending rates, have resulted and may further result in the loss of customer deposits, a key source of funding for UBS, net new money outflows and / or a declining market share in UBS's domestic lending business.

UBS's equity and capital are also affected by changes in interest rates. In particular, the calculation of UBS's pension plan net defined benefit assets and liabilities is sensitive to the discount rate applied. Any further reduction in interest rates would lower the discount rates and result in pension plan deficits due to the long duration of corresponding liabilities. This would lead to a corresponding reduction in UBS's equity and fully applied common equity tier 1 ("**CET1**") capital.

### UBS's global presence subjects it to risk from currency fluctuations

UBS prepares its consolidated financial statements in Swiss francs. However, a substantial portion of its assets, liabilities, invested assets, revenues and expenses, equity of foreign operations and risk-weighted assets ("**RWA**") are denominated in US dollars, euros, British pounds and in other foreign currencies. Accordingly, changes in foreign exchange rates may adversely affect UBS's profits, balance sheet, including deferred tax assets, and capital, leverage and liquidity ratios. In particular, the portion of UBS's operating income denominated in non-Swiss franc currencies is greater than the portion of operating expenses denominated in non-Swiss franc currencies. Therefore, the appreciation of the Swiss franc against other currencies generally has an adverse effect on UBS's profits, in the absence of any mitigating actions. Moreover, in order to hedge UBS's CET1 capital ratio, CET1 capital needs to have foreign currency exposure, leading to currency sensitivity of CET1 capital. As a consequence, it is not possible to simultaneously fully hedge both the amount of capital and the capital ratio. As the proportion of RWA denominated in non-Swiss franc currencies outweighs the capital in these currencies, a significant appreciation of the Swiss franc against these currencies could benefit UBS's capital ratios, while a significant depreciation of the Swiss franc against these currencies could adversely affect its capital ratios.

Swiss counterparties are, in general, highly reliant on the domestic economy and the economies to which they export, in particular the EU and the US. In addition, the EUR / CHF exchange rate is an important risk factor for Swiss corporates. The stronger Swiss franc may have a negative effect on the Swiss economy, particularly on exporters, which could adversely affect some of the counterparties within UBS's domestic lending portfolio and lead to an increase in the level of credit loss expenses in future periods from the low levels recently observed.

### Regulatory and legal changes may adversely affect UBS's business and its ability to execute its strategic plans

Fundamental changes in the laws and regulations affecting financial institutions can have a material and adverse effect on UBS's business. In the wake of the 2007–2009 financial crisis and the subsequent instability in global financial markets, regulators and legislators are considering, have proposed or have adopted a wide range of changes to these laws and regulations. These measures are generally designed to address the perceived causes of the crisis and to limit the systemic risks posed by major financial institutions. They include:

a) significantly higher regulatory capital requirements, including changes in the definition and calculation of regulatory capital as well as in the calculation of RWA;

b) prudential adjustments to the valuation of assets at the discretion of regulators;

c) introduction of a more demanding leverage ratio as well as new or significantly enhanced liquidity and stable funding requirements;

d) requirements to maintain liquidity and capital in jurisdictions in which activities are conducted and booked, and requirements to adopt risk, corporate and other governance structures at a local jurisdiction or entity level;

e) limitations on principal trading and other activities and limitations on risk concentrations and maximum levels of risk;

f) new licensing, registration and compliance regimes, and cross-border market access restrictions;

g) taxes and government levies that would effectively limit balance sheet growth or reduce the profitability of trading and other activities;

h) a variety of measures constraining, taxing or imposing additional requirements relating to compensation;

i) requirements to maintain loss-absorbing capital or debt instruments subject to write-down as part of recovery measures or a resolution of the Group or a Group company, including requirements for subsidiaries to maintain such instruments;

j) requirements to adopt structural and other changes designed to reduce systemic risk and to make major financial institutions easier to manage, restructure, disassemble or liquidate, including ring-fencing certain activities and operations within separate legal entities, and adoption of new liquidation regimes intended to prioritise the preservation of systemically significant functions.

There remains significant uncertainty regarding a number of the measures referred to above, including whether, or the form in which, they will be adopted, the timing and content of implementing regulations and interpretations, and the dates of their effectiveness. There is also uncertainty as to whether the laws and regulations that have been adopted will be repealed or modified as a result of geopolitical developments, particularly in the US with its recent change in presidential administration.

Notwithstanding attempts by regulators to align their efforts, the measures adopted or proposed differ significantly across the major jurisdictions, making it increasingly difficult to manage a global institution like UBS. Swiss regulatory changes with regard to such matters as capital and liquidity have generally proceeded more quickly than those in other major jurisdictions, and the requirements for Swiss major international banks are among the strictest of the major financial centres. This could put Swiss banks, such as UBS, at a disadvantage when they compete with peer financial institutions subject to more lenient regulation or with unregulated non-bank competitors.

Planned and potential regulatory and legislative developments in Switzerland and in other jurisdictions in which UBS has operations may have a material adverse effect on its ability to execute its strategic plans, on the profitability or viability of certain business lines globally or in particular locations, and in some cases, on its ability to compete with other financial institutions, and may require UBS to increase prices for or cease to offer certain services and products. The developments have been and will likely continue to be costly to implement. They could also have a negative effect on UBS's legal structure or business model, potentially generating capital, liquidity and other resource inefficiencies, all of which may adversely affect UBS's profitability. Finally, the uncertainty related to, or the implementation of, legislative and regulatory changes may have a negative impact on UBS's relationships with clients and its success in attracting client business.

Capital and TBTF[1] regulation

As an internationally active Swiss systemically relevant bank ("**SRB**"), UBS is subject to capital and total loss-absorbing capacity ("**TLAC**") requirements that are among the most stringent in the world. New Swiss SRB capital requirements impose significantly higher requirements based on RWA and a significantly higher leverage ratio requirement. In addition, a TLAC requirement has become applicable.

UBS may be subject to further increases in capital requirements in the future, from the imposition of further add-ons in the calculation of RWA or from other changes to other components of minimum capital

[1] TBTF = Too Big To Fail

requirements. The Basel Committee on Banking Supervision ("**BCBS**") and other regulators are considering changes to the Basel III capital framework, including revisions related to the credit risk and operational risk frameworks, as well as the introduction of an output floor. If the proposed changes to the capital framework are adopted in their current form in Switzerland, UBS expects its overall RWA would significantly increase, absent any mitigating measures. UBS also expects that it would incur significant costs to implement the proposed changes.

Liquidity and funding

The requirements to maintain an LCR of high-quality liquid assets to estimated stressed short-term net cash outflows and a net stable funding ratio ("**NSFR**"), or other similar liquidity and funding requirements UBS is subject to, oblige UBS to maintain substantially higher levels of overall liquidity than was previously the case, may limit its efforts to optimise interest income and expense, make certain lines of business less attractive and reduce UBS's overall ability to generate profits. Both the LCR and NSFR requirements are intended to ensure that UBS is not overly reliant on short-term funding and that it has sufficient long-term funding for illiquid assets, and the relevant calculations make assumptions about the relative likelihood and amount of outflows of funding and available sources of additional funding in a market- or firm-specific stress situation. There can be no assurance that in an actual stress situation UBS's funding outflows would not exceed the assumed amounts. Moreover, many of UBS's subsidiaries must comply with existing, or may in the future be required to comply with, minimum capital, liquidity, funding, and similar requirements and as a result UBS Group AG and UBS AG have contributed a significant portion of their capital and provide substantial liquidity to them. These funds are available to meet funding and collateral needs in the relevant jurisdictions, but are generally not readily available for use by the Group as a whole.

Banking structure and activity limitations

UBS has undertaken and continues to undertake significant changes in its legal and operational structure to meet legal and regulatory requirements and expectations.

Changes to its legal and operational structure, particularly the transfer of operations to subsidiaries, require significant time and resources to implement and create operational, capital, liquidity, funding and tax inefficiencies. In addition, they may increase UBS's aggregate credit exposure to counterparties as they transact with multiple entities within the UBS Group, expose UBS's businesses to local capital, liquidity and funding requirements, and potentially give rise to client and counterparty concerns about the credit quality of individual subsidiaries. Such changes could also negatively affect UBS's funding model, limit its operational flexibility and negatively affect its ability to benefit from synergies between business units.

In the US, UBS has incurred substantial costs for implementing a compliance and monitoring framework in connection with the Volcker Rule under the Dodd-Frank Act. It has also been required to modify its business activities both inside and outside the US to conform to its activity limitations. The Volcker Rule may also have a substantial impact on market liquidity and the economics of market-making activities. UBS may incur additional costs in the short term if aspects of the Volcker Rule are repealed or modified. It may become subject to other similar regulations substantively limiting the types of activities in which it may engage or the way it conducts its operations. If adopted as proposed, the rule on single counterparty risk proposed by the US Federal Reserve Board may affect how UBS conducts its operations in the US, including its use of other financial firms for payments and securities clearing services and as transactional counterparties.

Resolvability and resolution and recovery planning

Under the Swiss TBTF framework, and similar requirements in other jurisdictions, UBS is required to put in place viable emergency plans to preserve the operation of systemically important functions in the event of a failure, to the extent that such activities are not sufficiently separated in advance. If UBS adopts measures to reduce resolvability risk beyond what is legally required, it is eligible for a limited rebate on the gone concern requirements. Such actions include changes to the legal structure of a bank group, such as the creation of separate legal entities, in a manner that would insulate parts of the group to exposure from risks arising from other parts of the group, thereby making it easier to dispose of certain parts of the group in a recovery scenario, to liquidate or dispose of certain parts of the group in a resolution scenario or to execute a debt bail-in. Additionally, if a recovery or resolution plan that UBS is required to produce in a jurisdiction is determined by the relevant authority to be inadequate or not credible, relevant regulation may permit the authority to place limitations on the scope or size of its business in that jurisdiction, oblige UBS to hold higher amounts of capital or liquidity, or to change UBS's legal structure or business in order to remove the relevant impediments to resolution.

The Swiss Banking Act and implementing ordinances provide FINMA with significant powers to intervene in order to prevent a failure of, or to resolve, a failing financial institution. FINMA has considerable discretion in determining whether, when, or in what manner to exercise such powers. In case of a threatened insolvency, FINMA may impose more onerous requirements on UBS, including restrictions on the payment of dividends and interest. FINMA could also require UBS, directly or indirectly, for example, to alter its legal structure, including by separating lines of business into dedicated entities, with limitations on intra-group funding and certain guarantees, or to further reduce business risk levels in some manner. FINMA also has the ability to write down or convert into common equity the capital instruments and other liabilities of UBS Group AG, UBS AG and UBS Switzerland AG in connection with a resolution. Refer to "*If UBS experiences financial difficulties, FINMA has the power to open resolution or liquidation proceedings or impose protective measures in relation to UBS Group AG, UBS AG or UBS Switzerland AG, and such proceedings or measures may have a material adverse effect on UBS's shareholders and creditors*" below.

Market regulation

The implementation by the G20 countries of the commitment to require all standardised over-the-counter ("**OTC**") derivative contracts to be traded on exchanges or trading facilities and cleared through central counterparties has had and will continue to have a significant effect on UBS's OTC derivatives business, which is conducted primarily in the Investment Bank. These market changes are likely to reduce the revenue potential of certain lines of business for market participants generally, and UBS may be adversely affected. For example, UBS expects that, as a rule, the shift of OTC derivatives trading to a central clearing model will tend to reduce profit margins in these products. Also, these laws may have a material impact on the market infrastructure that UBS uses, available platforms, collateral management and the way UBS interacts with clients, and may cause UBS to incur material implementation costs. Margin requirements for non-cleared OTC derivatives will require significant changes to collateral agreements with counterparties and UBS's clients' operational processes. In some jurisdictions implementation is ongoing, while rule-making and implementation are delayed in others. This may result in market dislocation, disruption of cross-border trading, and concentration of counterparty trading. It also affects UBS's ability to implement the required changes and may limit its ability to transact with clients.

Some of the regulations applicable to UBS AG as a registered swap dealer with the Commodity Futures Trading Commission ("**CFTC**") in the US, and certain regulations that will be applicable when UBS AG registers as a security-based swap dealer with the SEC, apply to UBS AG globally, including those relating to swap data reporting, recordkeeping, compliance and supervision. As a result, in some cases US rules will likely duplicate or conflict with legal requirements applicable to UBS elsewhere, including in Switzerland, and may place UBS at a competitive disadvantage to firms that are not required to register in the US with the SEC or CFTC.

In many instances, UBS provides services on a cross-border basis, and it is therefore sensitive to barriers restricting market access for third-country firms. In particular, efforts in the EU to harmonise the regime for third-country firms to access the European market may have the effect of creating new barriers that adversely affect UBS's ability to conduct business in these jurisdictions from Switzerland. In addition, a number of jurisdictions are increasingly regulating cross-border activities based on determinations of equivalence of home country regulation, substituted compliance or similar principles of comity. A negative determination could limit UBS's access to the market in those jurisdictions and may negatively influence its ability to act as a global firm. In addition, as such determinations are typically applied on a jurisdictional level rather than on an entity level, UBS will generally need to rely on jurisdictions' willingness to collaborate.

**If UBS is unable to maintain its capital strength, this may adversely affect its ability to execute its strategy, client franchise and competitive position**

Maintaining its capital strength is a key component of UBS's strategy. It enables UBS to support the growth of its businesses as well as to meet potential regulatory changes in capital requirements. It provides comfort to its stakeholders, forms the basis for its capital return policy, and contributes to its credit ratings. UBS's capital ratios are determined primarily by RWA, eligible capital and leverage ratio denominator ("**LRD**"), all of which may fluctuate based on a number of factors, some of which are outside UBS's control.

UBS's eligible capital may be reduced by losses recognised within net profit or other comprehensive income. Eligible capital may also be reduced for other reasons, including certain reductions in the ratings of securitisation exposures, acquisitions and divestments changing the level of goodwill, adverse currency movements affecting the value of equity, prudential adjustments that may be required due to the valuation uncertainty associated with certain types of positions, and changes in the value of certain pension fund assets and liabilities or in the interest rate and other assumptions used to calculate the changes in UBS's net defined benefit obligation recognised in other comprehensive income.

RWA are driven by UBS's business activities, by changes in the risk profile of its exposures, changes in its foreign currency exposures and foreign exchange rates and by regulation. For instance, substantial market volatility, a widening of credit spreads, which is a major driver of UBS's value-at-risk, adverse currency movements, increased counterparty risk, deterioration in the economic environment, or increased operational risk could result in a rise in RWA. UBS has significantly reduced its market risk and credit risk RWA in recent years. However, increases in operational risk RWA, particularly those arising from litigation, regulatory and similar matters, and regulatory changes in the calculation of RWA and regulatory add-ons to RWA have offset a substantial portion of this reduction. Changes in the calculation of RWA, or, as discussed above, the imposition of additional supplemental RWA charges or multipliers applied to certain exposures, or the imposition of an RWA floor based on the standardised approach or other methodology changes could substantially increase UBS's RWA. In addition, UBS may not be successful in its plans to further reduce RWA, either because it is unable to carry out fully the actions it has planned or because other business or regulatory developments or actions counteract the effects of its actions.

UBS is also subject to significantly higher leverage ratio-based capital and TLAC requirements under the revised Swiss Capital Adequacy Ordinance. The leverage ratio is a simple balance sheet measure and therefore limits balance sheet-intensive activities, such as lending, more than activities that are less balance sheet intensive, and it may constrain UBS's business activities even if UBS satisfies other risk-based capital requirements. UBS's leverage ratio denominator is driven by, among other things, the level of client activity, including deposits and loans, foreign exchange rates, interest rates and other market factors. Many of these factors are wholly or partially outside UBS's control.

### UBS may not be successful in the ongoing execution of its strategic plans

In October 2012, UBS announced a significant acceleration in the implementation of its strategy. The strategy included transforming UBS's Investment Bank to focus it on its traditional strengths, very significantly reducing RWA and further strengthening UBS's capital position, and significantly reducing costs and improving efficiency. UBS also set targets and expectations for its performance. It has substantially completed the transformation of its business. However, the risk remains that it may not succeed in executing the rest of its plans, or may need to delay them, that market events or other factors may adversely affect their implementation or that their effects may differ from those intended. Macroeconomic conditions, geopolitical uncertainty, the changes to the Swiss TBTF framework and the continuing costs of meeting new regulatory requirements have prompted UBS to adapt its targets and expectations in the past and UBS may need to do so again in the future.

UBS has substantially reduced the RWA and LRD usage of its Corporate Center - Non-core and Legacy Portfolio positions, but there is no assurance that it will continue to be able to exit the remaining positions as quickly as its plans suggest or that it will not incur significant losses in doing so. The continued illiquidity and complexity of many of UBS's legacy risk positions in particular could make it difficult to sell or otherwise exit these positions and reduce the RWA and LRD usage associated with these exposures.

As part of its strategy, UBS also has a programme underway to achieve significant incremental cost reductions, but a number of factors could negatively affect its plans. Higher permanent regulatory costs and business demand than it had originally anticipated have partly offset UBS's gross cost reductions and delayed the achievement of cost reduction targets in the past, and UBS could continue to be challenged in the execution of its ongoing plans. Moreover, as is often the case with major effectiveness and efficiency programs, cost reduction plans involve significant risks, including that restructuring costs may be higher and may be recognised sooner than projected, that UBS may not be able to identify feasible cost reduction opportunities that are also consistent with its business goals, and that cost reductions may be realised later or may be less than UBS anticipates. Changes in UBS's workforce as a result of outsourcing, nearshoring or offshoring or staff reductions may introduce new operational risks that, if not effectively addressed could affect UBS's ability to recognise the desired cost and other benefits from such changes or could result in operational losses. Such changes can also lead to expenses recognised in the income statement well in advance of the cost savings intended to be achieved through such workforce strategy, for example, if provisions for real estate lease contracts need to be recognised or when, in connection with the closure or disposal of non-profitable operations, foreign currency translation losses previously recorded in other comprehensive income are reclassified to the income statement.

As UBS implements its effectiveness and efficiency programs, it may also experience unintended consequences, such as the loss or degradation of capabilities that it needs in order to maintain its competitive position, achieve its targeted returns or meet existing or new regulatory requirements and expectations.

## Material legal and regulatory risks arise in the conduct of UBS's business

As a global financial services firm operating in more than 50 countries, UBS is subject to many different legal, tax and regulatory regimes and it is subject to extensive regulatory oversight and exposed to significant liability risk. UBS is subject to a large number of claims, disputes, legal proceedings and government investigations, and it expects that its ongoing business activities will continue to give rise to such matters in the future. The extent of UBS's financial exposure to these and other matters is material and could substantially exceed the level of provisions that UBS has established. UBS is not able to predict the financial and non-financial consequences these matters may have when resolved. Resolution of regulatory proceedings may require UBS to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorisations, and may permit financial market utilities to limit, suspend or terminate UBS's participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorisations or participations, could have material consequences for UBS.

UBS's settlements with governmental authorities in connection with foreign exchange, LIBOR and benchmark interest rates starkly illustrate the significantly increased level of financial and reputational risk now associated with regulatory matters in major jurisdictions. In December 2012, UBS announced settlements totalling approximately CHF 1.4 billion in fines by and disgorgements to US, UK and Swiss authorities. UBS entered into a non-prosecution agreement ("**NPA**") with the US Department of Justice ("**DOJ**"), and UBS Securities Japan Co. Ltd. pleaded guilty to one count of wire fraud relating to the manipulation of certain benchmark interest rates. In May 2015, the DOJ exercised its discretion to terminate the NPA based on its determination that certain UBS employees had committed a US crime related to foreign exchange matters. As a consequence, UBS AG has pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, and paid a USD 203 million fine and is subject to a three-year term of probation. The very large fines and disgorgement amounts were assessed against UBS, and UBS was required to enter guilty pleas, despite its full cooperation with the authorities in the investigations, and despite its receipt of conditional leniency or conditional immunity from antitrust authorities in a number of jurisdictions, including the US and Switzerland. UBS understands that, in determining the consequences for UBS, the authorities considered the fact that it had in the recent past been determined that UBS had engaged in serious misconduct in several other matters.

Ever since its material losses arising from the 2007 - 2009 financial crisis, UBS has been subject to a very high level of regulatory scrutiny and to certain regulatory measures that constrain its strategic flexibility. While UBS believes that it has remediated the deficiencies that led to those losses as well as to the unauthorised trading incident announced in September 2011, the effects on its reputation and relationships with regulatory authorities of the LIBOR-related settlements of 2012 and settlements with some regulators of matters related to UBS's foreign exchange and precious metals business, have proven to be more difficult to overcome. UBS is in active dialogue with its regulators concerning the actions that it is taking to improve its operational risk management and control framework, but there can be no assurance that its efforts will have the desired effects. As a result of this history, UBS's level of risk with respect to regulatory enforcement may be greater than that of some of its peers.

## Operational risks affect UBS's business

UBS's businesses depend on its ability to process a large number of transactions, many of which are complex, across multiple and diverse markets in different currencies, to comply with requirements of many different legal and regulatory regimes to which UBS is subject and to prevent, or promptly detect and stop, unauthorised, fictitious or fraudulent transactions. UBS also relies on access to, and on the functioning of, systems maintained by third parties, including clearing systems, exchanges, information processors and central counterparties. Failure of its or third-party systems could have an adverse effect on UBS. UBS's operational risk management and control systems and processes are designed to help ensure that the risks associated with its activities, including those arising from process error, failed execution, misconduct, unauthorised trading, fraud, system failures, financial crime, cyberattacks, breaches of information security and failure of security and physical protection, are appropriately controlled. If UBS's internal controls fail or prove ineffective in identifying and remedying these risks, UBS could suffer operational failures that might result in material losses, such as the loss from the unauthorised trading incident announced in September 2011.

UBS and other financial services firms have been subject to breaches of security and to cyber and other forms of attack, some of which are sophisticated and targeted attacks intended to gain access to confidential information or systems, disrupt service or destroy data. It is possible that UBS may not be able to anticipate, detect or recognise threats to its systems or data or that its preventative measures will not be effective to prevent an attack or a security breach. A successful breach or circumvention of security of UBS's systems or data could have significant negative consequences for UBS, including disruption of its operations, misappropriation of confidential information concerning UBS or its customers, damage to its systems, financial losses for UBS or its customers, violations of data privacy and similar laws, litigation exposure and damage to UBS's reputation.

A major focus of US and other countries' governmental policies relating to financial institutions in recent years has been fighting money laundering and terrorist financing. UBS is required to maintain effective policies, procedures and controls to detect, prevent and report money laundering and terrorist financing, and to verify the identity of its clients. It is also subject to laws and regulations related to corrupt and illegal payments to government officials by others, such as the US Foreign Corrupt Practices Act and the UK Bribery Act. UBS has implemented policies, procedures and internal controls that are designed to comply with such laws and regulations. Failure to maintain and implement adequate programs to combat money laundering, terrorist financing or corruption, or any failure of UBS's programs in these areas, could have serious consequences both from legal enforcement action and from damage to UBS's reputation.

As a result of new and changed regulatory requirements and the changes UBS has made in its legal structure to meet regulatory requirements and improve its resolvability, the volume, frequency and complexity of UBS's regulatory and other reporting has significantly increased. Regulators have also significantly increased expectations for UBS's internal reporting and data aggregation. UBS has incurred and continues to incur significant costs to implement infrastructure to meet these requirements. Failure to timely and accurately meet external reporting requirements or to meet regulatory expectations for internal reporting could result in enforcement action or other adverse consequences for UBS.

Certain types of operational control weaknesses and failures could also adversely affect UBS's ability to prepare and publish accurate and timely financial reports. Following the unauthorised trading incident announced in September 2011, management determined that UBS had a material weakness in its internal control over financial reporting as of the end of 2010 and 2011, although this did not affect the reliability of its financial statements for either year.

In addition, despite the contingency plans UBS has in place, its ability to conduct business may be adversely affected by a disruption in the infrastructure that supports its businesses and the communities in which it is located. This may include a disruption due to natural disasters, pandemics, civil unrest, war or terrorism and involve electrical, communications, transportation or other services used by UBS or third parties with whom it conducts business.

### UBS's reputation is critical to the success of its business

UBS's reputation is critical to the success of its strategic plans, business and prospects. Reputational damage is difficult to reverse, and improvements tend to be slow and difficult to measure. UBS's very large losses during the financial crisis, the investigations into its cross-border private banking services to US private clients and the settlements entered into with US authorities with respect to this matter, and other events seriously damaged UBS's reputation. Reputational damage was an important factor in UBS's loss of clients and client assets across its asset-gathering businesses, and contributed to UBS's loss of, and difficulty in attracting, staff in 2008 and 2009. These developments had short-term and also more lasting adverse effects on UBS's financial performance, and UBS recognised that restoring its reputation would be essential to maintaining its relationships with clients, investors, regulators and the general public, as well as with its employees. The unauthorised trading incident announced in September 2011 and UBS's involvement in the LIBOR matter and investigations relating to its foreign exchange and precious metals business have also adversely affected UBS's reputation. Any further reputational damage could have a material adverse effect on UBS's operational results and financial condition and on its ability to achieve its strategic goals and financial targets.

### Performance in the financial services industry is affected by market conditions and the macroeconomic climate

UBS's businesses are materially affected by market and economic conditions. Adverse changes in interest rates, credit spreads, securities' prices, market volatility and liquidity, foreign exchange rates, commodity prices, and other market fluctuations, as well as changes in investor sentiment, can affect UBS's earnings and ultimately its financial and capital positions.

A market downturn and weak macroeconomic conditions can be precipitated by a number of factors, including geopolitical events, changes in monetary or fiscal policy, trade imbalances, natural disasters, pandemics, civil unrest, acts of violence, war or terrorism. Macroeconomic and political developments can have unpredictable and destabilising effects and, because financial markets are global and highly interconnected, even local and regional events can have widespread impact well beyond the countries in which they occur. UBS is closely monitoring developments in Europe following the UK referendum on EU membership, with potential adverse consequences for the UK economy and for the recovery of a weak EU economy. Moreover, if individual countries impose restrictions on cross-border payments or other exchange or capital controls, or change their currency (for example, if one or more countries should leave the eurozone), UBS could suffer losses from enforced default by counterparties, be unable to access its own assets, and / or be impeded in, or prevented from, managing its risks.

UBS could be materially affected if a crisis develops, regionally or globally, as a result of disruptions in emerging markets or developed markets that are susceptible to macroeconomic and political developments, or as a result of the failure of a major market participant. UBS's strategic plans depend more heavily on its ability to generate growth and revenue in emerging markets, including China, causing UBS to be more exposed to the risks associated with such markets. The binding scenario UBS uses in its combined stress test framework reflects these aspects, and assumes a hard landing in China leading to severe contagion of Asian and emerging markets economies and at the same time multiple debt restructurings in Europe, related direct losses for European banks and fear of a eurozone breakup severely affecting developed markets such as Switzerland, the UK and the US.

UBS has material exposures to a number of markets, and the regional balance of its business mix also exposes UBS to risk. UBS's Investment Bank's Equities business, for example, is more heavily weighted to Europe and Asia, and within this business its derivatives business is more heavily weighted to structured products for wealth management clients, in particular with European and Asian underlyings. Turbulence in these markets can therefore affect UBS more than other financial service providers.

A decrease in business and client activity and market volumes, for example, as a result of significant market volatility, adversely affects transaction fees, commissions and margins, particularly in UBS's wealth management businesses and in the Investment Bank, as UBS experienced in 2016. A market downturn is likely to reduce the volume and valuations of assets that UBS manages on behalf of clients, reducing its asset and performance-based fees, and could also cause a decline in the value of assets that UBS owns and accounts for as investments or trading positions. On the other hand, reduced market liquidity or volatility limit trading opportunities and impede UBS's ability to manage risks, impacting both trading income and performance-based fees.

Credit risk is an integral part of many of UBS's activities, including lending, underwriting and derivatives activities. Worsening economic conditions and adverse market developments could lead to impairments and defaults on credit exposures and on UBS's trading and investment positions. Losses may be exacerbated by declines in the value of collateral UBS holds. UBS is exposed to credit risk in activities, such as its prime brokerage, reverse repurchase and Lombard lending, as the value or liquidity of the assets against which UBS provides financing may decline rapidly. Macroeconomic developments, such as the continuing strength of the Swiss franc and its effect on Swiss exports, the adoption of negative interest rates by the Swiss National Bank or other central banks or any return of crisis conditions within the eurozone or the EU, and the potential implications of the decision in Switzerland to reinstate immigration quotas for EU and European Economic Area citizens, could also adversely affect the Swiss economy, UBS's business in Switzerland in general and, in particular, UBS's Swiss mortgage and corporate loan portfolios.

The aforementioned developments have in the past affected, and could materially affect, the financial performance of business divisions and of UBS as a whole including through impairment of goodwill and the adjustment of deferred tax asset levels.

### UK withdrawal from the EU

On 29 March 2017, the UK prime minister formally notified the European Council of the UK’s intention to withdraw from the EU under Article 50 of the Treaty on European Union. This has triggered a two-year period during which the UK will negotiate its withdrawal agreement with the EU. It is currently expected that the UK will formally leave the EU in March 2019. The nature of the UK’s future relationship with the EU remains unclear. Any future limitations on providing financial services from UBS's UK operations into the EU that could arise following the UK's exit from the EU may require UBS to implement potentially significant changes to its operations in the UK and its legal entity structure. UBS is evaluating the potential effects of a UK exit from the EU and potential mitigating actions, although the effects and actions may vary considerably depending on the timing of withdrawal and the nature of any transition or successor agreements with the EU.

### UBS may not be successful in implementing changes in its wealth management businesses to meet changing market, regulatory and other conditions

UBS's wealth and asset management businesses operate in an environment of increasing regulatory scrutiny and changing standards also with respect to fiduciary and other standards of care and the focus on mitigating or eliminating conflicts of interest between a manager or advisor and the client, which require effective implementation across the global systems and processes of investment managers and other industry participants. For example, the US Department of Labor has adopted a rule expanding the definition of "fiduciary" under the Employee Retirement Income Security Act ("**ERISA**"), which required UBS to implement changes to its compensation programs for Wealth Management Americas financial advisors in relation to retirement plan accounts as well as to the product offerings for these plans. UBS will likely be required to materially change business processes, policies and the terms on which it interacts with these clients in order to comply with these and related implementation rules when they become effective.

UBS is exposed to possible outflows of client assets in its asset-gathering businesses and to changes affecting the profitability of its wealth management businesses and it may not be successful in implementing the business changes needed to address them.

UBS experienced substantial net outflows of client assets in its wealth management and asset management businesses in 2008 and 2009. The net outflows resulted from a number of different factors, including UBS's substantial losses, damage to its reputation, the loss of client advisors, difficulty in recruiting qualified client advisors and tax, legal and regulatory developments concerning UBS's cross-border private banking business. Many of these factors have been successfully addressed. However, long-term changes affecting the cross-border private banking business model will continue to affect client flows in the wealth management businesses for an extended period of time.

UBS has experienced cross-border outflows over a number of years as a result of heightened focus by fiscal authorities on cross-border investment and fiscal amnesty programmes, in anticipation of the implementation in Switzerland of the global automatic exchange of tax information, and as a result of the measures UBS has implemented in response to these changes. Further changes in local tax laws or regulations and their enforcement, the implementation of cross-border tax information exchange regimes, national tax amnesty or enforcement programs or similar actions may affect UBS's clients' ability or willingness to do business with UBS and result in additional cross-border outflows.

In recent years, UBS's Wealth Management net new money inflows have come predominantly from clients in Asia Pacific and in the ultra high net worth segment globally. Over time, inflows from these lower-margin segments and markets have been replacing outflows from higher-margin segments and markets, in particular cross-border clients. This dynamic, combined with changes in client product preferences as a result of which low-margin products account for a larger share of UBS's revenues than in the past, has put downward pressure on UBS's Wealth Management’s margins.

Initiatives that UBS may implement to overcome the effects of changes in the business environment on its profitability, balance sheet and capital positions give no assurance that UBS will be able to counteract those effects and may cause net new money outflows and reductions in client deposits, as happened with UBS's balance sheet and capital optimisation programme in 2015. In addition, UBS has made changes to its business offerings and pricing practices in line with the Swiss Supreme Court case concerning retrocessions and other industry developments. These changes may adversely affect UBS's margins on these products, and UBS's current offering may be less attractive to clients than the products it replaces. There is no assurance that UBS will be successful in its efforts to offset the adverse effect of these or similar trends and developments.

### UBS may be unable to identify or capture revenue or competitive opportunities, or retain and attract qualified employees

The financial services industry is characterised by intense competition, continuous innovation, restrictive, detailed, and sometimes fragmented, regulation and ongoing consolidation. UBS faces competition at the level of local markets and individual business lines, and from global financial institutions that are comparable to UBS in their size and breadth. Barriers to entry in individual markets and pricing levels are being eroded by new technology. UBS expects these trends to continue and competition to increase. Its competitive strength and market position could be eroded if UBS is unable to identify market trends and developments, does not respond to them by devising and implementing adequate business strategies, adequately developing or updating its technology, particularly in trading businesses, and its digital channels and tools, or is unable to attract or retain the qualified people needed to carry them out.

The amount and structure of UBS's employee compensation is affected not only by its business results but also by competitive factors and regulatory considerations.

In recent years, in response to the demands of various stakeholders, including regulatory authorities and shareholders, and in order to better align the interests of UBS's staff with those of other stakeholders, UBS has made changes to the terms of compensation awards. Among other things, UBS has introduced individual caps on the proportion of fixed to variable pay for the Group Executive Board members, as well as certain other employees. UBS has increased average deferral periods for stock awards, expanded forfeiture provisions, and, to a more limited extent, introduced claw-back provisions for certain awards linked to business performance.

Constraints on the amount or structure of employee compensation, higher levels of deferral, performance conditions and other circumstances triggering the forfeiture of unvested awards may adversely affect UBS's ability to retain and attract key employees. The loss of key staff and the inability to attract qualified replacements, depending on which and how many roles are affected, could seriously compromise UBS's ability to execute its strategy and to successfully improve its operating and control environment and may affect its business performance.

UBS depends on its risk management and control processes to avoid or limit potential losses in its businesses

Controlled risk-taking is a major part of the business of a financial services firm. Some losses from risk-taking activities are inevitable, but to be successful over time, UBS must balance the risks it takes against the returns it generates. UBS must, therefore, diligently identify, assess, manage and control its risks, not only in normal market conditions but also as they might develop under more extreme, stressed conditions, when concentrations of exposures can lead to severe losses.

As seen during the financial crisis of 2007–2009, UBS is not always able to prevent serious losses arising from extreme or sudden market events that are not anticipated by its risk measures and systems. The deterioration of financial markets since the beginning of the crisis was extremely severe by historical standards. Value-at-risk, a statistical measure for market risk, is derived from historical market data, and thus by definition could not have anticipated the losses suffered in the stressed conditions of the crisis. Moreover, stress loss and concentration controls and the dimensions in which UBS aggregated risk to identify potentially highly correlated exposures proved to be inadequate. As a result, UBS recorded substantial losses on fixed income trading positions, particularly in 2008 and 2009. Notwithstanding the steps it has taken to strengthen its risk management and control framework, UBS could suffer further losses in the future if, for example:

a) it does not fully identify the risks in its portfolio, in particular risk concentrations and correlated risks;

b) its assessment of the risks identified or its response to negative trends proves to be untimely, inadequate, insufficient or incorrect;

c) markets move in ways that UBS does not expect – in terms of their speed, direction, severity or correlation – and UBS's ability to manage risks in the resulting environment is, therefore, affected;

d) third parties to whom UBS has credit exposure or whose securities it holds for its own account are severely affected by events not anticipated by its models, and accordingly UBS suffers defaults and impairments beyond the level implied by its risk assessment; or

e) collateral or other security provided by UBS's counterparties proves inadequate to cover their obligations at the time of their default.

UBS holds positions related to real estate in various countries, and could suffer losses on these positions. These positions include a substantial Swiss mortgage portfolio. Although management believes that this portfolio is prudently managed, UBS could nevertheless be exposed to losses if the concerns expressed by the Swiss National Bank and others about unsustainable price escalation in the Swiss real estate market come to fruition. In addition, UBS continues to hold substantial legacy risk positions, primarily in Corporate Center - Non-core and Legacy Portfolio. They remain illiquid in many cases, and UBS continues to be exposed to the risk that they may again deteriorate in value.

UBS also manages risk on behalf of its clients in its asset and wealth management businesses. The performance of assets UBS holds for its clients in these activities could be adversely affected by the same factors mentioned above. If clients suffer losses or the performance of their assets held with UBS is not in line with relevant benchmarks against which clients assess investment performance, UBS may suffer reduced fee income and a decline in assets under management, or withdrawal of mandates.

Investment positions, such as equity investments made as part of strategic initiatives and seed investments made at the inception of funds that UBS manages, may also be affected by market risk factors. These investments are often not liquid and generally are intended or required to be held beyond a normal trading horizon. They are subject to a distinct control framework. Deteriorations in the fair value of these positions would have a negative effect on UBS's earnings.

### Liquidity and funding management are critical to UBS's ongoing performance

The viability of UBS's business depends on the availability of funding sources, and its success depends on its ability to obtain funding at times, in amounts, for tenors and at rates that enable UBS to efficiently support its asset base in all market conditions. The volume of UBS's funding sources has generally been stable, but could change in the future due to, among other things, general market disruptions or widening credit spreads, which could also influence the cost of funding. A substantial part of UBS's liquidity and funding requirements is met using short-term unsecured funding sources, including retail and wholesale deposits and the regular issuance of money market securities. A change in the availability of short-term funding could occur quickly.

Moreover, more stringent capital and liquidity and funding requirements will likely lead to increased competition for both secured funding and deposits as a stable source of funding, and to higher funding costs. The addition of loss-absorbing debt as a component of capital requirements, the regulatory requirements to maintain minimum TLAC at holding company level and / or at subsidiaries level, as well as the power of resolution authorities to bail in TLAC and other debt obligations, and uncertainty as to how such powers will be exercised, will increase UBS's cost of funding and could potentially increase the total amount of funding required absent other changes in UBS's business.

Reductions in UBS's credit ratings may adversely affect the market value of the securities and other obligations and increase UBS's funding costs, in particular with regard to funding from wholesale unsecured sources, and can affect the availability of certain kinds of funding. In addition, as UBS experienced in connection with Moody's downgrade of UBS's long-term rating in June 2012, rating downgrades can require UBS to post additional collateral or make additional cash payments under master trading agreements relating to its derivatives businesses. UBS's credit ratings, together with its capital strength and reputation, also contribute to maintaining client and counterparty confidence and it is possible that rating changes could influence the performance of some of UBS's businesses.

### UBS's financial results may be negatively affected by changes to assumptions and valuations, as well as changes to accounting standards

UBS prepares its consolidated financial statements in accordance with IFRS. The application of these accounting standards requires the use of judgment based on estimates and assumptions that may involve significant uncertainty at the time they are made. This is the case, for example, with respect to the measurement of fair value of financial instruments, the recognition of deferred tax assets, or the assessment of the impairment of goodwill. Such judgments, including the underlying estimates and assumptions, which encompass historical experience, expectations of the future and other factors are regularly evaluated to determine their continuing relevance based on current conditions. Using different assumptions could cause the reported results to differ. Changes in assumptions, or failure to make the changes necessary to reflect evolving market conditions, may have a significant effect on the financial statements in the periods when changes occur. Moreover, if the estimates and assumptions in future periods deviate from the current outlook, UBS's financial results may also be negatively affected.

Changes to IFRS or interpretations thereof, may cause UBS future reported results and financial position to differ from current expectations, or historical results to differ from those previously reported due to the adoption of accounting standards on a retrospective basis. Such changes may also affect UBS's regulatory capital and ratios. Currently, there are a number of issued but not yet effective IFRS changes, as well as potential IFRS changes, some of which could be expected to affect UBS's reported results, financial position and regulatory capital in the future. For example, IFRS 9, when fully adopted, will require UBS to record loans at inception net of expected losses instead of recording credit losses on an incurred loss basis and is generally expected to result in an increase in recognised credit loss allowances.

### The effect of taxes on UBS's financial results is significantly influenced by reassessments of its deferred tax assets

UBS's effective tax rate is highly sensitive both to its performance and its expectation of future profitability. Based on prior years' tax losses, UBS has recognised deferred tax assets ("**DTAs**") reflecting the probable recoverable level based on future taxable profit as informed by its business plans. If UBS's performance is expected to produce diminished taxable profit in future years, particularly in the US or the UK, UBS may be required to write down all or a portion of the currently recognised DTAs through its income statement. This would have the effect of increasing its effective tax rate in the year in which any write-downs are taken. Conversely, if its performance is expected to improve, particularly in the US or the UK, UBS could potentially recognise additional DTAs as a result of that assessment. The effect of doing so would be to significantly reduce UBS's effective tax rate in years in which additional DTAs are recognised and to increase the effective tax rate in future years. UBS generally revalues its deferred tax assets in the second half of the financial year based on a reassessment of future profitability taking into account updated business plan forecasts. UBS's results in recent periods have demonstrated that changes in the recognition of DTAs can have a very significant effect on its reported results.

UBS's full-year effective tax rate could also change if aggregate tax expenses in respect of profits from branches and subsidiaries without loss coverage differ from what is expected, or in case of changes to the forecast period used for DTA recognition purposes as part of the aforementioned reassessment of future profitability. Moreover, tax laws or the tax authorities in countries where UBS has undertaken legal structure changes may prevent the transfer of tax losses incurred in one legal entity to newly organised or reorganised subsidiaries or affiliates or may impose limitations on the utilisation of tax losses that relate to businesses formerly conducted by the transferor. Were this to occur in situations where there were also limited planning opportunities to utilise the tax losses in the originating entity, the DTAs associated with such tax losses could be written down through the income statement.

UBS's effective tax rate is also sensitive to any future reductions in statutory tax rates, particularly in the US and Switzerland, which would cause the expected future tax benefit from items such as tax loss carry-forwards in the affected locations to diminish in value. This in turn would cause a write-down of the associated DTAs. For example, for every percentage point reduction in the US federal corporate income tax rate, UBS would expect a CHF 0.2 billion decrease in the Group's deferred tax assets. In addition, statutory and regulatory changes, as well as changes to the way in which courts and tax authorities interpret tax laws could cause the amount of taxes ultimately paid by UBS to materially differ from the amount accrued.

### UBS's stated capital returns objective is based, in part, on capital ratios that are subject to regulatory change and may fluctuate significantly

UBS's capital return policy envisages total capital returns to shareholders of at least 50% of net profit attributable to shareholders, provided that UBS maintains a fully applied CET1 capital ratio of at least 13% and consistent with UBS's objective of maintaining a post-stress fully applied CET1 capital ratio of at least 10%.

UBS's ability to maintain a fully applied CET1 capital ratio of at least 13% is subject to numerous risks, including the financial results of its businesses, the effect of changes to capital standards such as those recently introduced in Switzerland, methodologies and interpretation that may adversely affect the calculation of its fully applied CET1 capital ratio, the imposition of risk add-ons or capital buffers, and the application of additional capital, liquidity and similar requirements to subsidiaries. Refer to the discussion of these risks earlier in this section and in particular to "*Continuing low or negative interest rates may have a detrimental effect on UBS's capital strength, liquidity and funding position, and profitability*" above for more information on the effect on capital of changes to pension plan defined benefit obligations.

To calculate UBS's post-stress CET1 capital ratio, UBS forecasts capital one year ahead based on internal projections of earnings, expenses, distributions to shareholders and other factors affecting CET1 capital, including its net defined benefit plan assets and liabilities. UBS also forecasts one-year developments in RWA. It adjusts these forecasts based on assumptions as to how they may change as a result of a severe stress event. It then further deducts from capital the stress loss estimated using its combined stress test ("**CST**") framework.

UBS's CST framework relies on various risk exposure measurement methodologies, which are predominantly proprietary, on UBS's selection and definition of potential stress scenarios and on its assumptions regarding estimates of changes in a wide range of macroeconomic variables and certain idiosyncratic events for each of those scenarios. UBS periodically reviews these methodologies. Assumptions are also subject to periodic review and change on a regular basis. UBS's risk exposure measurement methodologies may change in response to developing market practice and enhancements to its own risk control environment, and input parameters for models may change due to changes in positions, market parameters and other factors.

UBS's stress scenarios, the events comprising a scenario and the assumed shocks and market and economic consequences applied in each scenario are subject to periodic review and change. UBS's business plans and forecasts are subject to inherent uncertainty, its choice of stress test scenarios and the market and macroeconomic assumptions used in each scenario are based on judgments and assumptions about possible future events. UBS's risk exposure measurement methodologies are subject to inherent limitations, rely on numerous assumptions as well as on data which may have inherent limitations. In particular, certain data is not available on a monthly basis and UBS may therefore rely on prior-month or prior-quarter data as an estimate. Changes to UBS's results, business plans and forecasts, in the assumptions used to reflect the effect of a stress event on its business forecasts or in the results of its CST, could have a material effect on its stress scenario results and on the calculation of its post-stress fully applied CET1 capital ratio. In assessing whether

UBS's post-stress fully applied CET1 capital ratio objective has been met at any time, UBS may consider both the current ratio and its expectation as to its future developments.

UBS AG's operating results, financial condition and ability to pay its obligations in the future may be affected by funding, dividends and other distributions received from UBS Switzerland AG, UBS Americas Holding LLC, UBS Limited and other subsidiaries, which may be subject to restrictions

UBS AG's ability to pay its obligations in the future may be affected by the level of funding, dividends and other distributions, if any, received from UBS Switzerland AG and other subsidiaries. The ability of such subsidiaries to make loans or distributions, directly or indirectly, to UBS AG may be restricted as a result of several factors, including restrictions in financing agreements and the requirements of applicable law and regulatory, fiscal or other restrictions. In particular, UBS AG's direct and indirect subsidiaries, including UBS Switzerland AG, UBS Limited and UBS Americas Holding LLC, are subject to laws and regulations that restrict dividend payments, authorise regulatory bodies to block or reduce the flow of funds from those subsidiaries to UBS AG, could impact their ability to repay any loans made to, or other investments in, such subsidiary by UBS AG or another member of the Group, or limit or prohibit transactions with affiliates, and could be subject to additional restrictions in the future. Restrictions and regulatory actions of this kind could impede access to funds that UBS AG may need to make payments. In addition, UBS AG's right to participate in a distribution of assets upon a subsidiary's liquidation or reorganisation is subject to all prior claims of the subsidiary's creditors.

Furthermore, UBS AG may guarantee some of the payment obligations of certain of its subsidiaries from time to time. These guarantees may require UBS AG to provide substantial funds or assets to subsidiaries or their creditors or counterparties at a time when UBS AG is in need of liquidity to fund its own obligations.

If UBS experiences financial difficulties, FINMA has the power to open resolution or liquidation proceedings or impose protective measures in relation to UBS Group AG, UBS AG or UBS Switzerland AG, and such proceedings or measures may have a material adverse effect on UBS's shareholders and creditors

Under the Swiss Banking Act, FINMA is able to exercise broad statutory powers with respect to Swiss banks and Swiss parent companies of financial groups, such as UBS AG, UBS Group AG and UBS Switzerland AG, if there is justified concern that the entity is over-indebted, has serious liquidity problems or, after the expiration of any relevant deadline, no longer fulfils capital adequacy requirements. Such powers include ordering protective measures, instituting restructuring proceedings (and exercising any Swiss resolution powers in connection therewith), and instituting liquidation proceedings, all of which may have a material adverse effect on shareholders and creditors or may prevent UBS Group AG, UBS AG or UBS Switzerland AG from paying dividends or making payments on debt obligations.

Protective measures may include, but are not limited to, certain measures that could require or result in a moratorium on, or the deferment of, payments. UBS would have limited ability to challenge any such protective measures, and creditors would have no right under Swiss law or in Swiss courts to reject them, seek their suspension, or challenge their imposition, including measures that require or result in the deferment of payments.

If restructuring proceedings are opened with respect to UBS Group AG, UBS AG or UBS Switzerland AG, the resolution powers that FINMA may exercise include the power to (i) transfer all or some of the assets, debt and other liabilities, and contracts of the entity subject to proceedings to another entity, (ii) stay for a maximum of two business days the termination of, or the exercise of rights to terminate, netting rights, rights to enforce or dispose of certain types of collateral or rights to transfer claims, liabilities or certain collateral, under contracts to which the entity subject to proceedings is a party, and / or (iii) partially or fully write down the equity capital and, if such equity capital is fully written down, convert into equity or write down the capital and other debt instruments of the entity subject to proceedings. Shareholders and creditors would have no right to reject, or to seek the suspension of, any restructuring plan pursuant to which such resolution powers are exercised. They would have only limited rights to challenge any decision to exercise resolution powers or to have that decision reviewed by a judicial or administrative process or otherwise.

Upon full or partial write-down of the equity and of the debt of the entity subject to restructuring proceedings, the relevant shareholders and creditors would receive no payment in respect of the equity and debt that is written down, the write-down would be permanent, and the investors would not, at such time or at any time thereafter, receive any shares or other participation rights, or be entitled to any write-up or any other compensation in the event of a potential recovery of the debtor. If FINMA orders the conversion of debt of the entity subject to restructuring proceedings into equity, the securities received by the investors may be worth significantly less than the original debt and may have a significantly different risk profile, and such conversion would also dilute the ownership of existing shareholders. In addition, creditors receiving equity would be effectively subordinated to all creditors in the event of a subsequent winding up, liquidation or dissolution of the entity subject to restructuring proceedings, which would increase the risk that investors would lose all or some of their investment.

FINMA has broad powers and significant discretion in the exercise of its powers in connection with a resolution proceeding. Furthermore, certain categories of debt obligations, such as certain types of deposits, are subject to preferential treatment. As a result, holders of obligations of an entity subject to a Swiss restructuring proceeding may have their obligations written down or converted into equity even though obligations ranking on par with or junior to such obligations are not written down or converted.

Moreover, FINMA has expressed its preference for a "single-point-of-entry" resolution strategy for global systemically important financial groups, led by the bank's home supervisory and resolution authorities and focused on the top-level group company. This would mean that, if UBS AG or one of UBS Group AG's other subsidiaries faces substantial losses, FINMA could open restructuring proceedings with respect to UBS Group AG only and order a bail-in of its liabilities if there is a justified concern that in the near future such losses could impact UBS Group AG. In that case, it is possible that the obligations of UBS AG or any other subsidiary of UBS Group AG would remain unaffected and outstanding, while the equity capital and the capital and other debt instruments of UBS Group AG would be written down and / or converted into equity of UBS Group AG in order to recapitalise UBS AG or such other subsidiary.

## IV. Information about UBS AG

UBS AG with its subsidiaries (together, "**UBS AG (consolidated)**", or "**UBS AG Group**"; together with UBS Group AG, which is the holding company of UBS AG, and its subsidiaries, "**UBS Group**", "**Group**", "**UBS**" or "**UBS Group AG (consolidated)**") provides financial advice and solutions to private, institutional and corporate clients worldwide, as well as private clients in Switzerland. The operational structure of the Group is comprised of the Corporate Center and five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank. UBS's strategy is centered on its leading wealth management businesses and its premier universal bank in Switzerland, which are enhanced by Asset Management and the Investment Bank. UBS focuses on businesses that, in its opinion, have a strong competitive position in their targeted markets, are capital efficient, and have an attractive long-term structural growth or profitability outlook.

On 30 September 2017, UBS Group's common equity tier 1 ("**CET1**") capital ratio was 13.7% on a fully applied basis and 15.1% on a phase-in basis and the CET1 leverage ratio was 3.7% on a fully applied basis and 4.1% on a phase-in basis, the gone concern loss-absorbing capacity ratio was 15.5% on a fully applied basis and 12.1% on a phase-in basis, and the gone concern leverage ratio was 4.2% on a fully applied basis and 3.3% on a phase-in basis.[2] On the same date, invested assets stood at CHF 3,067 billion, equity attributable to UBS Group AG shareholders was CHF 53,493 million and market capitalization was CHF 63,757 million. On the same date, UBS employed 60,796 people[3].

On 30 September 2017, UBS AG consolidated CET1 capital ratio was 14.0% on a fully applied basis and 15.4% on a phase-in basis and the CET1 leverage ratio was 3.8% on a fully applied basis and 4.1% on a phase-in basis, the gone concern loss-absorbing capacity ratio was 15.9% on a fully applied basis and 12.6% on a phase-in basis, and the gone concern leverage ratio was 4.3% on a fully applied basis and 3.4% on a phase-in basis.[1] On the same date, invested assets stood at CHF 3,067 billion and equity attributable to UBS AG shareholders was CHF 53,246 million. On the same date, UBS AG Group employed 48,949 people [2].

The rating agencies Standard & Poor's Credit Market Services Europe Limited ("**Standard & Poor's**"), Moody's Deutschland GmbH ("**Moody's**"), Fitch Ratings Limited ("**Fitch Ratings**"), and Scope Ratings AG ("Scope Ratings") have published solicited credit ratings reflecting their assessment of the creditworthiness of UBS AG, i.e. its ability to fulfil in a timely manner payment obligations, such as principal or interest payments on long-term loans, also known as debt servicing. The ratings from Fitch Ratings, Standard & Poor's and Scope Ratings may be attributed a plus or minus sign, and those from Moody's a number. These supplementary attributes

[2] All figures based on the Basel III framework as applicable to Swiss systemically relevant banks.

[3] Full-time equivalents.

indicate the relative position within the respective rating class. UBS AG has a long-term counterparty credit rating of A+ (outlook: stable) from Standard & Poor's, long-term senior debt rating of A1 (outlook: stable) from Moody's, long-term issuer default rating of AA- (outlook: stable) from Fitch Ratings and issuer rating of AA- (outlook: stable) from Scope Ratings.

Generally, rating agencies base their ratings on such material and information, and such of their own investigations, studies and assumptions, as they deem appropriate. The ratings of UBS AG should be evaluated independently from similar ratings of other entities, and from the rating, if any, of its securities. A credit rating is not a recommendation to buy, sell or hold securities issued or guaranteed by the rated entity and may be subject to review, revision, suspension, reduction or withdrawal at any time by the assigning rating agency. All the above-mentioned rating agencies are registered as credit rating agencies under Regulation (EC) No 1060/2009 as amended by Regulation (EU) No 513/2011.

The following table gives an overview of the rating classes as used by the above rating agencies and their respective meaning. UBS AG's rating is indicated by the red box.

| Standard & Poor's | | | Moody's | | Fitch Ratings | | Scope Ratings | |
|---|---|---|---|---|---|---|---|---|
| Long-Term Issuer credit rating | | | Long-Term rating | | Long-Term Issuer Default Rating | | Long-Term Issuer credit rating | |
| AAA | Extremely strong capacity to meet financial commitments | | Aaa | Highest quality | AAA | Highest credit quality | AAA | Exceptionally strong credit quality with the lowest risk of a default-like event |
| AA+ | Very strong capacity to meet financial commitments | | Aa1 | High quality | AA+ | Very high credit quality | AA+ | Very strong credit quality with an extremely low risk of a default-like event |
| AA | | | Aa2 | | AA | | AA | |
| AA- | | | Aa3 | | AA- | | AA- | |
| A+ | Strong capacity to meet its financial commitments | | A1 | Upper-medium grade | A+ | High credit quality | A+ | Strong credit quality with a very low risk of a default-like event |
| A | | | A2 | | A | | A | |
| A- | | | A3 | | A- | | A- | |
| BBB+ | Adequate capacity to meet its financial commitments | | Baa1 | Medium grade | BBB+ | Good credit quality | BBB+ | Good credit quality with a low risk of a default-like event. |
| BBB | | | Baa2 | | BBB | | BBB | |
| BBB- | | | Baa3 | | BBB- | | BBB- | |
| BB+ | Significant speculative characteristics | Less vulnerable in the near term than other lower-rated obligors | Ba1 | Speculative, subject to substantial credit risk | BB+ | Speculative | BB+ | Moderate-to-modest credit quality with a moderate risk of a default-like event |
| BB | | | Ba2 | | BB | | BB | |
| BB- | | | Ba3 | | BB- | | BB- | |
| B+ | | More vulnerable than the obligors rated 'BB' | B1 | Speculative, subject to high credit risk | B+ | Highly speculative | B+ | Weak credit quality with a material risk of a default-like event |
| B | | | B2 | | B | | B | |
| B- | | | B3 | | B- | | B- | |
| | | Currently vulnerable | Caa1 | Speculative, of poor standing and subject to very high credit risk | CCC | Substantial credit risk | CCC | Very weak credit quality with a significant risk of a default-like-event |
| CCC+ | | | Caa2 | | CC | Very high levels of credit risk | CC | Very weak credit quality with a very significant risk of a default-like-event |
| CCC | | | Caa3 | | C | Exceptionally high levels of credit risk | C | Extremely weak credit |

| Standard & Poor's | | | Moody's | | Fitch Ratings | | Scope Ratings | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | quality with a highly significant risk of a default-like-event |
| CCC- | | Currently highly vulnerable | Ca | Highly speculative, likely in, or very near, default with some prospect of recovery of principal and interest | RD | Restricted default | | |
| CC | | | | | | | | |
| R | Under regulatory supervision | | C | Typically in default, with little prospect for recovery of principal or interest | D | Default | D | Credit default-like event |
| SD | Selective Default | | | | | | | |
| D | Default | | | | | | | |

All the above rating agencies are registered as credit rating agencies under Regulation (EC) No 1060/2009 as amended by Regulation (EU) No 513/2011.

### Corporate Information

The legal and commercial name of the Issuer is UBS AG.

The company was incorporated under the name SBC AG on 28 February 1978 for an unlimited duration and entered in the Commercial Register of Canton Basel-City on that day. On 8 December 1997, the company changed its name to UBS AG. The company in its present form was created on 29 June 1998 by the merger of Union Bank of Switzerland (founded 1862) and Swiss Bank Corporation (founded 1872). UBS AG is entered in the Commercial Registers of Canton Zurich and Canton Basel-City. The registration number is CHE-101.329.561.

UBS AG is incorporated and domiciled in Switzerland and operates under the Swiss Code of Obligations as an *Aktiengesellschaft*, a corporation limited by shares.

According to article 2 of the Articles of Association of UBS AG, the purpose of UBS AG is the operation of a bank. Its scope of operations extends to all types of banking, financial, advisory, trading and service activities in Switzerland and abroad. UBS AG may establish branches and representative offices as well as banks, finance companies and other enterprises of any kind in Switzerland and abroad, hold equity interests in these companies, and conduct their management. UBS AG is authorized to acquire, mortgage and sell real estate and building rights in Switzerland and abroad. UBS AG may borrow and invest money on the capital markets. UBS AG is part of the group of companies controlled by the group parent company UBS Group AG. It may promote the interests of the group parent company or other group companies. It may provide loans, guarantees and other kinds of financing and security for group companies.

The addresses and telephone numbers of UBS AG's two registered offices and principal places of business are: Bahnhofstrasse 45, CH-8001 Zurich, Switzerland, telephone +41 44 234 1111; and Aeschenvorstadt 1, CH-4051 Basel, Switzerland, telephone +41 61 288 5050.

Any statements regarding the competitive position of UBS AG, UBS AG Group or the Group contained in this document are made on the basis of the opinion of UBS AG or the Group.

## V. Organisational Structure of UBS AG

UBS AG is a Swiss bank and the parent company of the UBS AG Group. It is 100% owned by UBS Group AG, which is the holding company of the UBS Group. UBS operates as a group with five business divisions (Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank) and a Corporate Center.

Since 2014, UBS has undertaken a series of measures to improve the resolvability of the Group in response to too big to fail requirements in Switzerland and other countries in which the Group operates.

In December 2014, UBS Group AG completed an exchange offer for the shares of UBS AG and became the holding company of the UBS Group. During 2015, UBS Group AG completed a court procedure under the Swiss Stock Exchange and Securities Trading Act resulting in the cancellation of the shares of the remaining minority shareholders of UBS AG. As a result, UBS Group AG owns 100% of the outstanding shares of UBS AG.

In June 2015, UBS AG transferred its Personal & Corporate Banking and Wealth Management businesses booked in Switzerland to UBS Switzerland AG, a banking subsidiary of UBS AG in Switzerland. Also in 2015, UBS implemented a more self-sufficient business and operating model for UBS Limited, UBS's investment banking subsidiary in the UK, and established UBS Business Solutions AG as a direct subsidiary of UBS Group AG to act as the Group service company. The purpose of the service company structure is to improve the resolvability of the Group by enabling UBS to maintain operational continuity of critical services should a recovery or resolution event occur.

In the second half of 2015, UBS transferred the ownership of the majority of its existing service subsidiaries outside the US to UBS Business Solutions AG. As of 1 January 2017, UBS completed the transfer of the shared service employees in the US to the US service company, UBS Business Solutions US LLC, a subsidiary of UBS AG. In the second quarter of 2017, UBS transferred shared services functions in Switzerland from UBS AG to UBS Business Solutions AG. UBS expects to complete the transfer of shared services functions in the UK in the fourth quarter of 2017.

As of 1 July 2016, UBS Americas Holding LLC was designated as intermediate holding company for UBS’s US subsidiaries as required under the enhanced prudential standards regulations pursuant to the Dodd-Frank Act. UBS Americas Holding LLC holds all of UBS’s US subsidiaries and is subject to US capital requirements, governance requirements and other prudential regulation.

In addition, UBS transferred the majority of the operating subsidiaries of Asset Management to UBS Asset Management AG during 2016. Furthermore, UBS merged its Wealth Management subsidiaries in Italy, Luxembourg (including its branches in Austria, Denmark and Sweden), the Netherlands and Spain into UBS Deutschland AG, which was renamed to UBS Europe SE, to establish UBS’s new European legal entity which is headquartered in Frankfurt, Germany.

UBS continues to consider further changes to the Group's legal structure in response to regulatory requirements and other external developments, including the anticipated exit of the United Kingdom from the European Union. Such changes may include the transfer of operating subsidiaries of UBS AG to become direct subsidiaries of UBS Group AG, further consolidation of operating subsidiaries in the EU and adjustments to the booking entity or location of products and services. These structural changes are being discussed on an ongoing basis with the Swiss Financial Market Supervisory Authority FINMA ("**FINMA**") and other regulatory authorities and remain subject to a number of uncertainties that may affect their feasibility, scope or timing. Refer to "Risk Factors - UBS has announced its intention to make certain structural changes in light of regulatory trends and requirements and the Terms and Conditions do not contain any restrictions on the Issuer's or UBS's ability to restructure its business" above.

UBS Group AG's interests in subsidiaries and other entities as of 31 December 2016, including interests in significant subsidiaries, are discussed in "Note 28 Interests in subsidiaries and other entities" to the UBS Group AG's consolidated financial statements as contained in the UBS Group AG and UBS AG Annual Report 2016 published on 10 March 2017 ("**Annual Report 2016**") and included in this Registration Document in Appendix 2 (*cf.* pages G-167-G-175 (inclusive)).

UBS AG's interests in subsidiaries and other entities as of 31 December 2016, including interests in significant subsidiaries, are discussed in "Note 28 Interests in subsidiaries and other entities" to the UBS AG's consolidated financial statements as contained in the Annual Report 2016 and included in this Registration Document in Appendix 2 (*cf.* pages G-167-G-175 (inclusive)).

UBS AG is the parent company of, and conducts a significant portion of its operations through, subsidiaries. UBS AG has contributed a significant portion of its capital and provides substantial liquidity to subsidiaries. In addition, UBS Business Solutions AG provides substantial services to group companies including UBS AG and its subsidiaries. To this extent, UBS AG is dependent on certain of the entities of the UBS AG Group and of the UBS Group.

## VI. Business Overview

### Business Divisions and Corporate Center

UBS operates as a group with five business divisions (Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management, and the Investment Bank) and a Corporate Center. Each of the business divisions and the Corporate Center are described below. A description of the Group's strategy can be found under "Our strategy" in the "Operating environment and strategy" section of the Annual Report 2016 as included in this Registration Document in Appendix 2 (*cf.* pages G-11-G-12 (inclusive)); a description of the businesses, strategies, clients, organisational structures, products and services of the business divisions and the Corporate Center can also be found in the "Operating environment and strategy" section of the Annual Report 2016 as included in this Registration Document in Appendix 2 (*cf.* pages G-2-G-39 (inclusive)).

### Wealth Management

Wealth Management provides comprehensive advice and tailored financial services to wealthy private clients around the world, except those served by Wealth Management Americas. Its clients benefit from the full spectrum of resources that UBS as a global firm can offer, including banking and lending solutions, wealth planning, investment management solutions, and corporate finance advice. Wealth Management's guided architecture model gives clients access to a wide range of products from the world's leading third-party institutions that complement its own products.

### Wealth Management Americas

Wealth Management Americas provides advice-based solutions through financial advisors who deliver a fully integrated set of products and services specifically designed to address the needs of their clients. Its business is primarily domestic US but includes Canada and international business booked in the US.

### Personal & Corporate Banking

Personal & Corporate Banking provides comprehensive financial products and services to private, corporate and institutional clients in Switzerland and is among the leading players in the private and corporate loan market in Switzerland, with a well-collateralized and conservatively managed lending portfolio. Its business is a central element of UBS's universal bank delivery model in Switzerland. Personal & Corporate Banking works with the wealth management, investment bank and asset management businesses to ensure that clients receive the best products and solutions for their specific financial needs. Personal & Corporate Banking is also an important source of growth for other business divisions in Switzerland through client referrals. In addition, Personal & Corporate Banking manages a substantial part of UBS's Swiss infrastructure and banking products platform, both of which are leveraged across the Group.

### Asset Management

Asset Management provides investment management products and services, platform solutions and advisory support to institutions, wholesale intermediaries and wealth management clients around the world, with an onshore presence in 22 countries. Asset Management's global investment capabilities include all major traditional and alternative asset classes.

### Investment Bank

The Investment Bank is present in over 35 countries, with principal offices in all major financial centers, providing investment advice, financial solutions and capital markets access. It serves corporate, institutional and wealth management clients across the globe and forms a synergetic partnership with UBS's wealth management, personal and corporate banking and asset management businesses. The business division is organized into Corporate Client Solutions and Investor Client Services, and also includes UBS Securities Research.

### Corporate Center

Corporate Center is comprised of Services, Group Asset and Liability Management ("**Group ALM**") and Non-core and Legacy Portfolio. Services consists of the Group Chief Operating Officer area (Group Corporate Services, Group Operations, Group Sourcing, Group Technology), Group Finance, Group Legal, Group Human Resources, Group Risk Control, Group Communications and Branding, Group Regulatory and Governance, and UBS and Society. Group ALM manages the structural risks of UBS's balance sheet, including interest rate risk in the banking book, currency risk and collateral risk, as well as the risks associated with the Group's liquidity and funding portfolios. Group ALM also seeks to optimize the Group's financial performance by better matching assets and liabilities within the context of the Group's liquidity, funding and capital targets. Group ALM serves all business divisions and other Corporate Center units through three main risk management areas, and its risk management is fully integrated into the Group's risk governance framework. Non-core and Legacy Portfolio is comprised of the positions from businesses that were part of the Investment Bank prior to its restructuring and is overseen by a committee chaired by the Group Chief Risk Officer.

### Competition

The financial services industry is characterised by intense competition, continuous innovation, restrictive, detailed, and sometimes fragmented, regulation and ongoing consolidation. UBS faces competition at the level of local markets and individual business lines, and from global financial institutions that are comparable to UBS in their size and breadth. Barriers to entry in individual markets and pricing levels are being eroded by new technology. UBS expects these trends to continue and competition to increase.

### Recent Developments:

*UBS AG (consolidated) key figures*

UBS AG took the selected consolidated financial information included in the table below for the years ended 31 December 2016, 2015 and 2014, except where indicated, from the Annual Report 2016, which contains the audited consolidated financial statements of UBS AG, as well as additional unaudited consolidated financial information, for the year ended 31 December 2016 and comparative figures for the years ended 31 December 2015 and 2014. The selected consolidated financial information included in the table below for the nine months ended 30 September 2017 and 30 September 2016 was taken from the UBS AG Third Quarter 2017 Report, which contains UBS AG interim consolidated financial statements (unaudited), as well as additional unaudited consolidated financial information, for the nine months ended 30 September 2017 and comparative figures for the nine months ended 30 September 2016.

The consolidated financial statements were prepared in accordance with International Financial Reporting Standards ("**IFRS**") issued by the International Accounting Standards Board ("**IASB**") and are stated in Swiss francs ("**CHF**"). Information for the years ended 31 December 2016, 2015 and 2014 which is indicated as being unaudited in the table below was included in the Annual Report 2016, but has not been audited on the basis that the respective disclosures are not required under IFRS, and therefore are not part of the audited financial statements. The Annual Report 2016 and the UBS AG Third Quarter 2017 Report are included in this Registration Document in Appendix 2 (*cf.* pages G-41-G-197 (inclusive)) and in Appendix 9 (*cf.* pages N-2-N-37 (inclusive)) respectively. The section "Measurement of performance" of the Annual Report 2016 contains an explanation of the use of the information contained under the heading "Key performance indicators" in the table below and the definitions of each of these key performance indicators. Prospective investors should read the whole of this Prospectus and should not rely solely on the summarized information set out below:

| | As of or for the nine months ended | | As of or for the year ended | | |
|---|---|---|---|---|---|
| *CHF million, except where indicated* | 30.9.17 | 30.9.16 | 31.12.16 | 31.12.15 | 31.12.14 |
| | *unaudited* | | *audited, except where indicated* | | |
| **Results** | | | | | |
| Operating income | 22,237 | 21,303 | 28,421 | 30,605 | 28,026 |
| Operating expenses | 17,993 | 17,979 | 24,352 | 25,198 | 25,557 |
| Operating profit / (loss) before tax | 4,244 | 3,324 | 4,069 | 5,407 | 2,469 |
| Net profit / (loss) attributable to shareholders | 3,257 | 2,568 | 3,207 | 6,235 | 3,502 |
| **Key performance indicators** | | | | | |
| **Profitability** | | | | | |
| Return on tangible equity (%) [1] | 9.6 | 7.3 | 6.9* | 13.5* | 8.2* |
| Cost / income ratio (%) [2] | 80.8 | 84.3 | 85.6* | 82.0* | 90.9* |

| | | | | | |
|---|---|---|---|---|---|
| **Growth** | | | | | |
| Net profit growth (%) [3] | 26.8 | (51.4) | (48.6)* | 78.0* | 10.4* |
| Net new money growth for combined wealth management businesses (%) [4] | 1.9 | 3.2 | 2.1* | 2.2* | 2.5* |
| **Resources** | | | | | |
| Common equity tier 1 capital ratio (fully applied, %) [5, 6] | 14.0 | 14.8 | 14.5* | 15.4* | 14.2* |
| Going concern leverage ratio (fully applied, %) [7, 8] | 4.2 | 4.1 | 4.2* | - | - |

| | | | | | |
|---|---|---|---|---|---|
| **Additional information** | | | | | |
| **Profitability** | | | | | |
| Return on equity (RoE) (%) [9] | 8.3 | 6.3 | 5.9* | 11.7* | 7.0* |
| Return on risk-weighted assets, gross (%) [10] | 12.9 | 13.3 | 13.2* | 14.3* | 12.6* |
| Return on leverage ratio denominator, gross (%) [11] | 3.4 | 3.2 | 3.2* | - | - |
| **Resources** | | | | | |
| Total assets | 914,551 | 935,683 | 935,353 | 943,256 | 1,062,327 |
| Equity attributable to shareholders | 53,246 | 53,556 | 53,662 | 55,248 | 52,108 |
| Common equity tier 1 capital (fully applied) [6] | 33,337 | 32,110 | 32,447 | 32,042 | 30,805 |
| Common equity tier 1 capital (phase-in) [6] | 36,736 | 38,994 | 39,474 | 41,516 | 44,090 |
| Risk-weighted assets (fully applied) [6] | 237,322 | 217,297 | 223,232* | 208,186* | 217,158* |
| Common equity tier 1 capital ratio (phase-in, %) [5, 6] | 15.4 | 17.7 | 17.5* | 19.5* | 19.9* |
| Going concern capital ratio (fully applied, %) [8] | 15.6 | 16.5 | 16.3* | - | - |
| Going concern capital ratio (phase-in, %) [8] | 19.7 | 23.0 | 22.6* | - | - |
| Gone concern loss-absorbing capacity ratio (fully applied, %) [8] | 15.9 | 12.6 | 13.3* | - | - |
| Leverage ratio denominator (fully applied) [12] | 885,896 | 877,926 | 870,942* | 898,251* | 999,124* |
| Common equity tier 1 leverage ratio (fully applied, %) [12] | 3.8 | 3.7 | 3.7* | 3.6* | 3.1* |
| Going concern leverage ratio (phase-in, %) [7, 8] | 5.3 | 5.7 | 5.8* | - | - |
| Gone concern leverage ratio (fully applied, %) [8] | 4.3 | 3.1 | 3.4* | - | - |
| **Other** | | | | | |
| Invested assets (CHF billion) [13] | 3,067 | 2,747 | 2,821 | 2,689 | 2,734 |
| Personnel (full-time equivalents) | 48,949 | 57,012 | 56,208* | 58,131* | 60,155* |

* unaudited

[1] Net profit attributable to shareholders before amortization and impairment of goodwill and intangible assets (annualized as applicable) / average equity attributable to shareholders less average goodwill and intangible assets.

[2] Operating expenses / operating income before credit loss (expense) or recovery.

[3] Change in net profit attributable to shareholders from continuing operations between current and comparison periods / net profit attributable to shareholders from continuing operations of comparison period. Not meaningful and not included if either the reporting period or the comparison period is a loss period.

[4] Net new money growth for combined wealth management businesses is calculated as the aggregate of the net new money for the period (annualized as applicable) of the business divisions Wealth Management and Wealth Management Americas / aggregate invested assets at the beginning of the period of the business divisions Wealth Management and Wealth Management Americas. Net new money and invested assets are each derived from the “Wealth Management” and “Wealth Management Americas” sections of the management report contained in the UBS Group Third Quarter 2017 Report, under “UBS business divisions and Corporate Center", and in the Annual Report 2016, under “Financial and operating performance”. Net new money growth for combined wealth management businesses is based on adjusted net new money, which excludes the negative effect on net new money in 2015 of CHF 9.9 billion in Wealth Management from UBS’s balance sheet and capital optimization program.

[5] Common equity tier 1 capital / risk-weighted assets.

[6] Based on the Basel III framework as applicable for Swiss systemically relevant banks.

[7] Total going concern capital / leverage ratio denominator.

[8] Based on the revised Swiss SRB framework that became effective on 1 July 2016. Figures for prior periods are not available.

[9] Net profit attributable to shareholders (annualized as applicable) / average equity attributable to shareholders.
[10] Based on fully applied risk-weighted assets. Figures as of 31 December 2015 and 31 December 2014 were derived from the UBS Group 2016 Form 20-F and do not correspond to the figures contained in the UBS Group 2015 Form 20-F, which were calculated based on phase-in risk-weighted assets.
[11] Based on the fully applied leverage ratio denominator. From 31 December 2015 onward, the leverage ratio denominator calculation is aligned with the Basel III rules. For periods prior to 31 December 2015 the leverage ratio denominator is calculated in accordance with former Swiss SRB rules. Therefore the figures for the periods ended on 31 December 2015 and 31 December 2014 are not presented as they are not available on a fully comparable basis.
[12] Calculated in accordance with Swiss SRB rules. From 31 December 2015 onward, the leverage ratio denominator calculation is aligned with the Basel III rules. Figures for periods prior to 31 December 2015 are calculated in accordance with former Swiss SRB rules and are therefore not fully comparable.
[13] Includes invested assets for Personal & Corporate Banking.

1. Postponed implementation of NSFR and revision of LCR in Switzerland

In September 2017, the Swiss Federal Department of Finance informed banks that the net stable funding ratio (NSFR) requirements will not be finalized in 2017. Taking international developments into account, the Swiss Federal Council is expected to decide on next steps at the end of 2018.

UBS expects that proposed changes to liquidity coverage ratio (LCR) requirements will take effect on 1 January 2018, subject to approval by the Swiss Federal Council; however, the final version of the changes has not yet been published.

2. Increase in gone concern requirement rebate

Under the Swiss SRB framework, banks are eligible for a rebate of up to 2% of the leverage ratio denominator ("**LRD**")-based gone concern capital requirement if they take actions that facilitate recovery and resolvability beyond the minimum requirement. FINMA has communicated its annual assessment and has increased UBS's rebate to approximately one-third of the maximum based on actions UBS completed in 2016 to improve resolvability. The rebate will be phased in until 1 January 2020. As UBS completes additional measures to improve the resolvability of the Group, it expects to qualify for a larger rebate and therefore aims to operate with a gone concern ratio of less than 4% of the LRD on completion of the phase-in period.

Refer to "Regulatory and legal developments" in the UBS Group AG third quarter 2017 report, published on 27 October 2017, ("**UBS Group Third Quarter 2017 Report**") as included in this Registration Document in Appendix 8 (*cf.* pages M-2-M-3 (inclusive)) for information on further recent regulatory and legal developments."

## VII. Trend Information

As indicated in the UBS Group Third Quarter 2017 Report, UBS expects the global economic recovery to strengthen further, but geopolitical tensions and macroeconomic uncertainty still pose risks to client sentiment. In particular, high asset prices, uncertainty over central bank balance sheet and interest rate policies, seasonality factors and the persistence of low volatility may continue to affect overall client activity. Low and negative interest rates, particularly in Switzerland and the eurozone, put pressure on net interest margins, which may be partly offset by the effect of a further normalization of US monetary policy. Implementing Switzerland’s new bank capital standards and further changes to national and international regulatory frameworks for banks will result in increased capital requirements, funding and operating costs. UBS is well positioned to mitigate these challenges and benefit from further improvements in market conditions.

## VIII. Administrative, Management and Supervisory Bodies of UBS AG

UBS AG complies with all relevant Swiss legal and regulatory corporate governance requirements, as well as with the NYSE standards as a foreign company with debt securities listed on the NYSE.

UBS AG operates under a strict dual board structure, as mandated by Swiss banking law. The Board of Directors ("**BoD**") exercises the ultimate supervision over management, whereas the Executive Board ("**EB**"), headed by the President of the Executive Board ("**President of the EB**"), has executive management responsibility. The functions of Chairman of the BoD and President of the EB are assigned to two different people, ensuring a separation of power. This structure establishes checks and balances and preserves the institutional independence of the BoD from the day-to-day management of UBS AG, for which responsibility is delegated to the EB under the leadership of the President of the EB. No member of one board may simultaneously be a member of the other.

The supervision and control of the EB remains with the BoD. The Articles of Association and the Organization Regulations of UBS AG with their annexes govern the authorities and responsibilities of the two bodies.

## Board of Directors

The BoD is the most senior body of UBS AG. The BoD consists of at least five and no more than twelve members. All the members of the BoD are elected individually by the Annual General Meeting of Shareholders ("**AGM**") for a term of office of one year, which expires after the completion of the next AGM. Shareholders also elect the Chairman upon proposal of the BoD.

The BoD meets as often as business requires, and at least six times a year.

### Members of the Board of Directors

| Member and business address | Title | Term of office | Current principal positions outside UBS AG |
|---|---|---|---|
| Axel A. Weber<br><br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | Chairman | 2018 | Chairman of the Board of Directors of UBS Group AG; board member of the Swiss Bankers Association; member of the Board of Trustees of Avenir Suisse; Advisory Board member of the "Beirat Zukunft Finanzplatz"; board member of the Swiss Finance Council; Chairman of the board of the Institute of International Finance; President of the International Monetary Conference; member of the European Financial Services Round Table; member of the European Banking Group; member of the Monetary Economics and International Advisory Panel, Monetary Authority of Singapore; member of the Group of Thirty, Washington, D.C.; Chairman of the DIW Berlin Board of Trustees; Advisory Board member of the Department of Economics at the University of Zurich; member of the Trilateral Commission. |
| Michel Demaré<br><br>Syngenta International AG, Schwarzwaldallee 215, CH-4058 Basel | Independent Vice Chairman | 2018 | Independent Vice-Chairman of the Board of Directors of UBS Group AG; Vice Chairman of the board of Syngenta; board member of Louis-Dreyfus Commodities Holdings BV; Vice Chairman of the Supervisory Board of IMD, Lausanne; Chairman of the Syngenta Foundation for Sustainable Agriculture; Advisory Board member of the Department of Banking and Finance at the University of Zurich. |
| David Sidwell<br><br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | Member | 2018 | Senior Independent Director of the Board of Directors of UBS Group AG; Senior Advisor at Oliver Wyman, New York; board member of Chubb Limited; board member of GAVI Alliance; Chairman of the Board of Village Care, New York; Director of the National Council on Aging, Washington D.C. |
| Reto Francioni<br><br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | Member | 2018 | Member of the Board of Directors of UBS Group AG; professor at the University of Basel; board member of Coca-Cola HBC AG; Chairman of the board of Swiss International Air Lines AG; board member of Francioni AG; board member of MedTech Innovation Partners AG. |
| Ann F. Godbehere<br><br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | Member | 2018 | Member of the Board of Directors of UBS Group AG; board member of Rio Tinto plc (chairman of the audit committee); board member of Rio Tinto Limited (chairman of the audit committee); board member of British American Tobacco plc. |
| William G. Parrett<br><br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | Member | 2018 | Member of the Board of Directors of UBS Group AG; board member of the Eastman Kodak Company (chairman of the audit and finance committee); board member of the Blackstone Group LP (chairman of the audit committee and chairman of the conflicts committee); board member of Thermo Fisher Scientific Inc. (chairman of the audit committee); Chairman of the Board of Conduent Inc; member of the Committee on Capital Markets Regulation; member of the Carnegie Hall Board of Trustees; Past Chairman of the board of the United States Council for International Business; Past Chairman of United Way Worldwide. |
| Julie G. Richardson | Member | 2018 | Member of the Board of Directors of UBS Group AG; board member of The Hartford Financial Services Group, Inc. (chairman of the audit committee); board member of Yext (chairman of the audit committee); |

| | | | |
|---|---|---|---|
| UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | | | board member of Arconic Inc.; board member of Vereit, Inc. (chairman of the compensation committee). |
| Isabelle Romy<br><br>Froriep Legal AG, Bellerivestrasse 201, CH-8034 Zurich | Member | 2018 | Member of the Board of Directors of UBS Group AG; partner and board member at Froriep Legal AG, Zurich; associate professor at the University of Fribourg and at the Federal Institute of Technology, Lausanne; vice chairman of the Sanction Commission of SIX Swiss Exchange; member of the Fundraising Committee of the Swiss National Committee for UNICEF; Supervisory Board member of the CAS program Financial Regulation of the University of Bern and University of Geneva. |
| Robert W. Scully<br><br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | Member | 2018 | Member of the Board of Directors of UBS Group AG; board member of Chubb Limited; board member of Zoetis Inc.; board member of KKR & Co LP; board member of the Dean's Advisors of Harvard Business School. |
| Beatrice Weder di Mauro<br><br>Johannes Gutenberg-University Mainz, Jakob Welder-Weg 4, D-55099 Mainz | Member | 2018 | Member of the Board of Directors of UBS Group AG; distinguished fellow at INSEAD in Singapore (on leave from the University of Mainz); Supervisory Board member of Robert Bosch GmbH; board member of Bombardier Inc.; member of the ETH Zurich Foundation Board of Trustees; Economic Advisory Board member of Fraport AG; Advisory Board member of Deloitte Germany; Deputy Chairman of the University Council of the University of Mainz. |
| Dieter Wemmer<br><br>Allianz SE, Königinstr. 28, 80802 Munich, Germany | Member | 2018 | Member of the Board of Directors of UBS Group AG; CFO at Allianz SE; Administrative Board member of Allianz Asset Management AG and Allianz Investment Management SE, both Allianz Group mandates; member of the CFO Forum; member of the Systemic Risk Working Group of the European Central Bank and the Bank for International Settlements; Chairman of the Economic & Finance Committee of Insurance Europe; member of the Berlin Center of Corporate Governance. |

## Organizational principles and structure

Following each AGM, the BoD meets to appoint one or more Vice Chairmen, BoD committee members, and their respective Chairpersons. At the same meeting, the BoD appoints a Company Secretary, who acts as secretary to the BoD and its committees.

The BoD committees comprise the Audit Committee and the Risk Committee. The BoD has also established a Special Committee, which is an ad-hoc committee, called and held on an ad-hoc basis, focused on internal and regulatory investigations.

## Audit Committee

The Audit Committee ("AC") consists of five BoD members, all of whom were determined by the BoD to be fully independent. As a group, members of the Audit Committee must have the necessary qualifications and skills to perform all of their duties and together must possess financial literacy and experience in banking and risk management.

The AC itself does not perform audits but monitors the work of the external auditors who in turn are responsible for auditing UBS AG's consolidated and standalone annual financial statements and for reviewing the quarterly financial statements.

The function of the AC is to serve as an independent and objective body with oversight of: (i) UBS AG's accounting policies, financial reporting and disclosure controls and procedures, (ii) the quality, adequacy and scope of external audit, (iii) UBS AG's compliance with financial reporting requirements, (iv) senior management's approach to internal controls with respect to the production and integrity of the financial statements and disclosure of the financial performance, and (v) the performance of Internal Audit in conjunction with the Chairman of the BoD.

Together with the external auditors and Internal Audit, the AC in particular reviews the annual financial statements of UBS AG and, where applicable, the quarterly financial statements as well as the consolidated annual and quarterly financial statements and consolidated annual report of UBS AG, as proposed by management, in order to recommend their approval to the BoD or propose any adjustments the AC considers appropriate.

Periodically, and at least annually, the AC assesses the qualifications, expertise, effectiveness, independence and performance of the external auditors and their lead audit partner, in order to support the BoD in reaching a decision in relation to the appointment or dismissal of the external auditors and to the rotation of the lead audit partner. The BoD then submits these proposals to the shareholders for approval at the AGM.

The members of the AC are William G. Parrett (Chairperson), Michel Demaré, Ann F. Godbehere, Isabelle Romy and Beatrice Weder di Mauro.

## Executive Board

Under the leadership of the President of the EB, the EB has executive management responsibility for UBS AG and its business. All EB members (with the exception of the President of the EB) are proposed by the President of the EB. The appointments are made by the BoD.

### Members of the Executive Board

| Member and business address | Function | Current principal positions outside UBS AG |
|---|---|---|
| Sergio P. Ermotti<br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | President of the Executive Board | Member of the Group Executive Board and Group Chief Executive Officer of UBS Group AG; Member of the Board of Directors of UBS Switzerland AG; Chairman of the Board of Directors of UBS Business Solutions AG; Chairman of the UBS Optimus Foundation board; Chairman of the Fondazione Ermotti, Lugano; Chairman and President of the board of the Swiss-American Chamber of Commerce; board member of the Fondazione Lugano per il Polo Culturale, Lugano; board member of the Global Apprenticeship Network; member of the Institut International D'Etudes Bancaires; member of the Saïd Business School Global Leadership Council, University of Oxford. |
| Christian Bluhm<br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | Chief Risk Officer | Member of the Group Executive Board and Group Chief Risk Officer of UBS Group AG; board member of UBS Business Solutions AG; board member of UBS Switzerland AG. |
| Markus U. Diethelm<br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | General Counsel | Member of the Group Executive Board and Group General Counsel of UBS Group AG; board member of UBS Business Solutions AG; Chairman of the Swiss-American Chamber of Commerce's legal committee; Chairman of the Swiss Advisory Council of the American Swiss Foundation; member of the Foundation Council of the UBS International Center of Economics in Society; Foundation Board member of the International Red Cross and Red Crescent Museum; member of the Professional Ethics Commission of the Association of Swiss Corporate Lawyers. |
| Kirt Gardner<br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | Chief Financial Officer | Member of the Group Executive Board and Group Chief Financial Officer of UBS Group AG; board member of UBS Business Solutions AG. |
| Sabine Keller-Busse<br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | Head Human Resources | Member of the Group Executive Board and Group Head Human Resources of UBS Group AG; vice-chairman of the Board of Directors of SIX Group (Chairman of the nomination & compensation committee); Foundation Board member of the UBS Pension Fund; Foundation Board member of the University Hospital Zurich. |
| Ulrich Körner<br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | President Asset Management and President UBS Europe, Middle East and Africa | Member of the Group Executive Board, President Asset Management and President UBS Europe, Middle East and Africa of UBS Group AG; member of the Supervisory Board of UBS Europe SE; Chairman of the Foundation Board of the UBS Pension Fund; Chairman of the Widder Hotel AG, Zurich; member of the UBS Optimus Foundation Board; Vice President of the board of Lyceum Alpinum Zuoz; member of the Financial Service Chapter Board of the Swiss-American Chamber of Commerce; Advisory Board member of the Department of Banking and Finance at the University of Zurich; member of the business advisory council of the Laureus Foundation Switzerland. |
| Axel P. Lehmann | Chief Operating Officer | Member of the Group Executive Board and Group Chief |

| | | |
|---|---|---|
| UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | | Operating Officer of UBS Group AG; board member and President of the Executive Board of UBS Business Solutions AG; Co-Chair of the Global Future Council of the Future of Financial and Monetary Systems of the World Economic Forum; Chairman of the board of the Institute of Insurance Economics at the University of St. Gallen; member of the International and Alumni Advisory Board at the University of St. Gallen; member of the Swiss-American Chamber of Commerce Chapter Doing Business in USA; Adjunct Professor of Business Administration and Service Management at the University of St. Gallen. |
| Tom Naratil<br><br>UBS AG, 1200 Harbor Boulevard, Weehawken, NJ 07086 USA | President Wealth Management Americas and President UBS Americas | Member of the Group Executive Board and President Wealth Management Americas and President UBS Americas of UBS Group AG; Chairman of UBS Americas Holding LLC; board member of the American Swiss Foundation; board member of the Clearing House Supervisory Board; member of the Board of Consultors for the College of Nursing at Villanova University. |
| Andrea Orcel<br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | President Investment Bank | Member of the Group Executive Board and President Investment Bank of UBS Group AG; board member of UBS Limited; board member of UBS Americas Holding LLC. |
| Kathryn Shih<br>UBS AG, 2 International Finance Centre, 8 Finance Street, Central, Hong Kong | President UBS Asia Pacific | Member of the Group Executive Board of UBS Group AG and President UBS Asia Pacific; board member of Kenford International Ltd.; board member of Shih Co Charitable Foundation Ltd.; member of the Hong Kong Trade Development Council (Financial Services Advisory Committee). |
| Jürg Zeltner<br>UBS AG, Bahnhofstrasse 45, CH-8001 Zurich | President Wealth Management | Member of the Group Executive Board and President Wealth Management of UBS Group AG; board member of the German-Swiss Chamber of Commerce; member of the IMD Foundation Board, Lausanne. |

### Potential Conflicts of Interest

Members of the BoD and the EB may act as directors or executive officers of other companies (for current principal positions outside UBS AG, if any, of BoD and EB members, please see sections 4.1.1 and 4.2.1 above, respectively) and may have economic or other private interests that differ from those of UBS AG. Conflicts of interest may potentially arise from these positions or interests. For example, it cannot be excluded that a member of the BoD or EB has or will have a function within a company, the shares of which are or will be traded by UBS AG or which has or will have a business relationship with UBS AG. UBS AG is confident that its internal corporate governance practices and its compliance with relevant legal and regulatory provisions reasonably ensure that any conflicts of interest of the type described above are appropriately managed, including through disclosure when appropriate.

## IX. Major Shareholders

UBS Group AG owns 100% of the outstanding shares of UBS AG.

## X. Financial Information concerning the Issuer's Assets and Liabilities, Financial Position and Profits and Losses

The consolidated and standalone financial accounts are closed on 31 December of each year. Detailed information about UBS AG (consolidated) and UBS AG assets and liabilities, financial position and profits and losses

- for financial year 2016 is available in the section "UBS AG consolidated financial statements" of the Annual Report 2016 as included in this Registration Document in Appendix 2 (*cf.* pages G-41-G-197 (inclusive)) and in the UBS AG's standalone financial statements for the year ended 31 December 2016 (the "**Standalone Financial Statements**") as included in this Registration Document in Appendix 3 (*cf.* pages H-2-H-22 (inclusive)), respectively; and

- for financial year 2015 it is available in the "Consolidated financial statements" and "Legal entity financial and regulatory information" sections of the UBS Group AG and UBS AG annual report 2015, in English, published on 18 March 2016 ("**Annual Report 2015**") as included in this Registration Document in Appendix 1 (*cf.* pages F-4-F-195 (inclusive)).

The consolidated and standalone financial accounts are closed on 31 December of each year.

1. Historical Financial Information

With respect to the financial year 2016, reference is made to the following parts of the Annual Report 2016 (within the Financial information section, English version) as included in, and repaginated for the purposes of, this Registration Document:

(i) the following parts of the Annual Report 2016: the UBS AG consolidated financial statements, in particular to the Income statement on page G-41 of Appendix 2, the Balance sheet on page G-44, the Statement of changes in equity on pages G-45-G-48 (inclusive), the Statement of cash flows on pages G-50-G-51 (inclusive) and the Notes to the consolidated financial statements on pages G-52-G-197 (inclusive); and

(ii) the following parts of the Standalone Financial Statements: the Income statement on page H-2, the Balance sheet on pages H-3- H-4 (inclusive), the Statement of appropriation of retained earnings and proposed dividend distribution out of capital contribution reserve on page H-5, and the Notes to the UBS AG Standalone Financial Statements and Regulatory Information for the Year Ended 31 December 2016 ("**UBS AG Standalone Financial Statements**", included in this Registration Document in Appendix 3) on pages H-6-H-22 (inclusive).

With respect to the financial year 2015, reference is made to the following parts of the Annual Report 2015 (within the Financial information section, English version) as included in, and repaginated for the purposes of, this Registration Document:

(i) the UBS AG consolidated financial statements, in particular to the Income statement on page F-4, the Balance sheet on page F-7, the Statement of changes in equity on pages F-8-F-10 (inclusive), the Statement of cash flows on pages F-13-F-14 (inclusive) and the Notes to the consolidated financial statements on pages F-15-F-174 (inclusive); and

(ii) the UBS AG standalone financial statements, in particular to the Income statement on page F-175, the Balance sheet on page F-176-F-177, the Statement of appropriation of retained earnings and proposed dividend distribution on page F-178, the Notes to the UBS AG standalone financial statements on pages F-179-F-195 (inclusive).

The annual financial reports form an essential part of UBS AG's reporting. They include the audited consolidated financial statements of UBS AG, prepared in accordance with International Financial Reporting Standards, as issued by the International Accounting Standards Board. The annual reports also include discussions and analysis of the consolidated financial and business results of UBS, its business divisions and the Corporate Center. In addition, UBS AG prepares and publishes standalone financial statements in accordance with Swiss GAAP, as well as certain additional disclosures required under US Securities and Exchange Commission regulations.

2. Auditing of Historical Annual Financial Information

The consolidated financial statements of UBS AG and the standalone financial statements of UBS AG for financial years 2016 and 2015 were audited by Ernst & Young. The reports of the auditors on the consolidated financial statements can be found in the relevant sections of the Annual Report 2016 as included in this Registration Document in Appendix 2 on pages G-40 and in the relevant sections of the Annual Report 2015 as included in this Registration Document in Appendix 1 on pages F-1-F-2 (inclusive). The reports of the auditors on the standalone financial statements of UBS AG can be found in the relevant sections of the UBS AG Standalone Financial Statements as included in this Registration Document in Appendix 3 on pages H-23-H-26 (inclusive) and in the relevant sections of the Annual Report 2015 as included in this Registration Document in Appendix 1 on pages F-196-F-197 (inclusive).

There are no qualifications in the auditors' reports on the consolidated financial statements of UBS AG and the standalone financial statements of UBS AG for the years ended on 31 December 2016 and 31 December 2015.

3. **Interim Financial Information**

Reference is also made to (i) the UBS Group AG first quarter 2017 report published on 28 April 2017 ("**UBS Group First Quarter 2017 Report**") as included in this Registration Document in Appendix 4 (*cf.* pages I-2-I-40 (inclusive)) and the UBS AG first quarter 2017 report, published on 3 May 2017 ("**UBS AG First Quarter 2017 Report**") as included in this Registration Document in Appendix 5 (*cf.* pages J-2-J-38 (inclusive)), which contain information on the financial condition and results of operations, including the interim consolidated financial statements, of UBS Group AG consolidated and UBS AG consolidated, respectively, as of and for the period ended 31 March 2017; to (ii) the UBS Group AG second quarter 2017 report, published on 28 July 2017 ("**UBS Group Second Quarter 2017 Report**") as included in this Registration Document in Appendix 6 (*cf.* pages K-2-K-41 (inclusive)) and the UBS AG second quarter 2017 report, published on 3 August 2017 ("**UBS AG Second Quarter 2017 Report**") as included in this Registration Document in Appendix 7 (*cf.* pages L-2-L-48 (inclusive)), which contain information on the financial condition and results of operations, including the interim consolidated financial statements, of UBS Group AG consolidated and UBS AG consolidated, respectively, as of and for the period ended 30 June 2017; and to (iii) the UBS Group third quarter 2017 report, published on 1 November 2017 ("**UBS Group Third Quarter 2017 Report**") as included in this Registration Document in Appendix 8 (*cf.* pages M-4-M-41 (inclusive)) and the UBS AG third quarter 2017 report, published on 1 November 2017 ("**UBS AG Third Quarter 2017 Report**") as included in this Registration Document in Appendix 9 (*cf.* pages N-2-N-37 (inclusive)), which contain information on the financial condition and results of operations, including the interim consolidated financial statements, of UBS Group AG consolidated and UBS AG consolidated, respectively, as of and for the period ended 30 September 2017. The interim consolidated financial statements are not audited.

## XI. Litigation, Regulatory and Similar Matters

UBS operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this section may refer to UBS AG and / or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where UBS may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which UBS believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. UBS makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that UBS has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against UBS, but are nevertheless expected to be, based on UBS's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to such matters could be significant.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

In the case of certain matters below, UBS states that it has established a provision, and for the other matters, it makes no such statement. When UBS makes this statement and it expects disclosure of the amount of a provision to prejudice seriously its position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, UBS does not disclose that amount. In some cases UBS is subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which UBS does not state whether it has established a provision, either (a) it has not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard, or (b) it has established a provision but expects disclosure of that fact to prejudice seriously its position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which UBS has established provisions, UBS is able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which it is able to estimate expected timing is immaterial relative to its current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in "Note 13a Provisions" to the UBS AG's interim consolidated financial statements included in the UBS AG Third Quarter 2017 Report and included in this Registration Document in Appendix 9 (*cf.* page N-27). It is not practicable to provide an aggregate estimate of liability for UBS's litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require UBS to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although it therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, UBS believes that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. For example, the Non-Prosecution Agreement ("**NPA**") described in item 5 of this section, which UBS entered into with the US Department of Justice ("**DOJ**"), Criminal Division, Fraud Section in connection with UBS's submissions of benchmark interest rates, including, among others, the British Bankers' Association London Interbank Offered Rate ("**LIBOR**"), was terminated by the DOJ based on its determination that UBS had committed a US crime in relation to foreign exchange matters. As a consequence, UBS AG pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, paid a USD 203 million fine and is subject to a three-year term of probation. A guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for UBS. Resolution of regulatory proceedings may require UBS to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations and may permit financial market utilities to limit, suspend or terminate UBS's participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining UBS's capital requirements. Information concerning UBS's capital requirements and the calculation of operational risk for this purpose is included in the "Capital management" section of the UBS Group Third Quarter 2017 Report.

**Provisions for litigation, regulatory and similar matters by business division and Corporate Center unit [1]**

| CHF million | Wealth Manage-ment | Wealth Management Americas | Personal & Corporate Banking | Asset Manage-ment | Invest-ment Bank | CC – Services | CC – Group ALM | CC – Non-core and Legacy Portfolio | **UBS** |
|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | 292 | 425 | 78 | 5 | 616 | 259 | 0 | 1,585 | 3,261 |
| **Balance as of 30 June 2017** | 249 | 361 | 77 | 5 | 391 | 253 | 0 | 1,110 | 2,446 |
| Increase in provisions recognized in the income statement | 20 | 10 | 0 | 0 | 2 | 248 | 0 | 31 | **310** |
| Release of provisions recognized in the income statement | 0 | (3) | 0 | (5)[2] | (47) | (1) | 0 | (7) | **(63)** |
| Provisions used in conformity with designated purpose | (1) | (46) | 0 | 0 | (5) | (259) | 0 | (1) | **(313)** |
| Foreign currency translation / unwind of discount | 11 | 3 | 1 | 0 | 3 | 1 | 0 | 11 | **30** |
| **Balance as of 30 September 2017** | **279** | **325** | **78** | **0** | **344** | **241** | **0** | **1,144** | **2,410** |

1 Provisions, if any, for the matters described in this section "XI. Litigation, Regulatory and Similar Matters" are recorded in Wealth Management (item 3 "Madoff" below), Wealth Management Americas (item 4 "Puerto Rico" below), the Investment Bank (item 8 "Investigation of UBS's role in initial public offerings in Hong Kong" below), Corporate Center – Services (item 7 "Banco UBS Pactual tax indemnity" below) and Corporate Center – Non-core and Legacy Portfolio (item 2 "Claims related to sales of residential mortgage-backed securities and mortgages"). Provisions, if any, for the matters described in items 1 "Inquiries regarding cross-

border wealth management businesses" and 6 "Swiss retrocessions" of this section "XI. Litigation, Regulatory and Similar Matters" are allocated between Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in this section in item 5 "Foreign exchange, LIBOR, and benchmark rates, and other trading practices" below are allocated between the Investment Bank, Corporate Center – Services and Corporate Center – Non-core and Legacy Portfolio.

2 In the third quarter of 2017, a release of CHF 5 million was recognized in Provisions for litigation, regulatory and similar matters, with a corresponding increase in Other provisions.

1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions. It is possible that implementation of automatic tax information exchange and other measures relating to cross-border provision of financial services could give rise to further inquiries in the future. UBS has received disclosure orders from the Swiss Federal Tax Administration ("**FTA**") to transfer information based on requests for international administrative assistance in tax matters. The requests concern a number of UBS account numbers pertaining to current and former clients and are based on data from 2006 and 2008. UBS has taken steps to inform affected clients about the administrative assistance proceedings and their procedural rights, including the right to appeal. The requests are based on data received from the German authorities, who seized certain data related to UBS clients booked in Switzerland during their investigations and have apparently shared this data with other European countries. UBS expects additional countries to file similar requests.

The Swiss Federal Administrative Court ruled in 2016 that in the administrative assistance proceedings related to a French bulk request, UBS has the right to appeal all final FTA client data disclosure orders.

Since 2013, UBS (France) S.A. and UBS AG and certain former employees have been under investigation in France for alleged complicity in having illicitly solicited clients on French territory and regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons. In connection with this investigation, the investigating judges ordered UBS AG to provide bail (*caution*) of EUR 1.1 billion and UBS (France) S.A. to post bail of EUR 40 million, which was reduced on appeal to EUR 10 million.

In February 2016, the investigating judges notified UBS AG and UBS (France) S.A. that they have closed their investigation. In July 2016, UBS AG and UBS (France) S.A. received the National Financial Prosecutor's recommendation (*réquisitoire*"). In March 2017, the investigating judges issued the trial order (*ordonnance de renvoi*) that charges UBS AG and UBS (France) S.A., as well as various former employees, with illicit solicitation of clients on French territory and with participation in the laundering of the proceeds of tax fraud, and which transfers the case to court. The trial schedule has not yet been announced.

In 2016, UBS was notified by the Belgian investigating judge that it is under formal investigation (*inculpé*) regarding the laundering of proceeds of tax fraud and of banking, financial solicitation by unauthorized persons and serious tax fraud.

In 2015, UBS received inquiries from the US Attorney's Office for the Eastern District of New York and from the US Securities and Exchange Commission ("**SEC**"), which are investigating potential sales to US persons of bearer bonds and other unregistered securities in possible violation of the Tax Equity and Fiscal Responsibility Act of 1982 ("**TEFRA**") and the registration requirements of the US securities laws. UBS is cooperating with the authorities in these investigations.

UBS has, and reportedly numerous other financial institutions have, received inquiries from authorities concerning accounts relating to the *Fédération Internationale de Football Association* ("**FIFA**") and other constituent soccer associations and related persons and entities. UBS is cooperating with authorities in these inquiries.

UBS's balance sheet at 30 September 2017 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which UBS has established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that UBS has recognized.

2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities ("RMBS") and was a purchaser and seller of US residential mortgages. A subsidiary of UBS, UBS Real Estate Securities Inc. ("UBS RESI"), acquired pools of residential mortgage loans from originators and (through an affiliate) deposited them into securitization trusts. In this manner, from 2004 through 2007, UBS RESI sponsored approximately USD 80 billion in RMBS, based on the original principal balances of the securities issued.

UBS RESI also sold pools of loans acquired from originators to third-party purchasers. These whole loan sales during the period 2004 through 2007 totaled approximately USD 19 billion in original principal balance.

UBS was not a significant originator of US residential loans. A branch of UBS originated approximately USD 1.5 billion in US residential mortgage loans during the period in which it was active from 2006 to 2008, and securitized less than half of these loans.

Lawsuits related to contractual representations and warranties concerning mortgages and RMBS: When UBS acted as an RMBS sponsor or mortgage seller, it generally made certain representations relating to the characteristics of the underlying loans. In the event of a material breach of these representations, UBS was in certain circumstances contractually obligated to repurchase the loans to which the representations related or to indemnify certain parties against losses.

In 2012, certain RMBS trusts filed an action ("Trustee Suit") in the US District Court for the Southern District of New York ("SDNY") seeking to enforce UBS RESI's obligation to repurchase loans in the collateral pools for three RMBS securitizations with an original principal balance of approximately USD 2 billion. Approximately 9,000 loans were at issue in a bench trial in the SDNY in 2016, following which the court issued an order ruling on numerous legal and factual issues and applying those rulings to 20 exemplar loans. The court further ordered that a lead master be appointed to apply the court's rulings to the loans that remain at issue following the trial. In October 2017, UBS and certain holders of the RMBS in the Trustee Suit entered into an agreement under which UBS has agreed to pay an aggregate of USD 543 million into the relevant RMBS trusts, plus certain attorneys' fees. A portion of these settlement costs will be borne by other parties that indemnified UBS. The agreement is subject to the trustee for the RMBS trusts becoming a party thereto. The security holders who are parties to the settlement agreement have requested that the trustee conduct a vote of security holders to approve or reject the settlement, and each of these security holders has agreed to vote its securities in favor of the settlement. Giving effect to this settlement, UBS considers claims relating to substantially all loan repurchase demands to be resolved, and believes that new demands to repurchase US residential mortgage loans are time-barred under a decision rendered by the New York Court of Appeals.

Mortgage-related regulatory matters: In 2014, UBS received a subpoena from the US Attorney's Office for the Eastern District of New York issued pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 ("FIRREA"), which seeks documents and information related to UBS's RMBS business from 2005 through 2007. In 2015, the Eastern District of New York identified a number of transactions that are the focus of their inquiry, and has subsequently provided a revised list of transactions. UBS has provided and continues to provide information. UBS continues to respond to the FIRREA subpoena and to subpoenas from the New York State Attorney General and other state attorneys general relating to its RMBS business. In addition, UBS has also been responding to inquiries from both the Special Inspector General for the Troubled Asset Relief Program ("SIGTARP") (who is working in conjunction with the US Attorney's Office for Connecticut and the DOJ) and the SEC relating to trading practices in connection with purchases and sales of mortgage-backed securities in the secondary market from 2009 through 2014. UBS is cooperating with the authorities in these matters.

UBS's balance sheet at 30 September 2017 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which UBS has established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that UBS has recognized.

3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC ("BMIS") investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority ("**FINMA**") and the Luxembourg *Commission de Surveillance du Secteur Financier* ("**CSSF**"). Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds now face severe losses, and the Luxembourg funds are in liquidation. The last reported net asset value of the two Luxembourg funds before revelation of the Madoff scheme was approximately USD 1.7 billion in the aggregate although that figure likely includes fictitious profit reported by BMIS. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members. UBS Europe SE, Luxembourg branch, and certain other UBS subsidiaries are responding to inquiries by Luxembourg investigating authorities, without, however, being named as parties in those investigations.

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims on behalf of the funds against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees. The amounts claimed are approximately EUR 890 million and EUR 305 million, respectively. The liquidators have filed supplementary claims for amounts that the funds may possibly be held liable to pay the trustee for the liquidation of BMIS ("**BMIS Trustee**"). These amounts claimed by the liquidator are approximately EUR 564 million and EUR 370 million, respectively.

In addition, a large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff scheme. The majority of these cases are pending in Luxembourg, where appeals were filed by the claimants against the 2010 decisions of the court in which the claims in a number of test cases were held to be inadmissible. The Luxembourg Court of Appeal has found in favor of UBS and dismissed all of these test case appeals, confirming that the claims are inadmissible. The Luxembourg Supreme Court has also dismissed a further appeal brought by the claimant in one of the test cases.

In the US, the BMIS Trustee filed claims in 2010 against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2 billion. The SDNY dismissed all of the BMIS Trustee's claims other than claims for recovery of fraudulent conveyances and preference payments that were allegedly transferred to UBS on the ground that the BMIS Trustee lacks standing to bring such claims. The SDNY decision was affirmed on appeal and is now final. In 2016, the bankruptcy court issued an opinion dismissing the remaining claims for recovery of transfers of fraudulent conveyances and preference payments on the ground that the US Bankruptcy Code does not apply to transfers that occurred outside the US. The BMIS Trustee has appealed that ruling. In 2014, several claims, including a purported class action, were filed in the US by BMIS customers against UBS entities, asserting claims similar to the ones made by the BMIS Trustee, seeking unspecified damages. One claim was voluntarily withdrawn by the plaintiff. In 2015, the SDNY dismissed the two remaining claims on the basis that the New York courts did not have jurisdiction to hear the claims against the UBS entities. The plaintiff in one of those claims has appealed the dismissal.

In Germany, certain clients of UBS are exposed to Madoff-managed positions through third-party funds and funds administered by UBS entities in Germany. A small number of claims have been filed with respect to such funds. In 2015, a court of appeal ordered UBS to pay EUR 49 million, plus interest of approximately EUR 15.3 million.

4. Puerto Rico

Declines since 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds ("funds") that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico ("**UBS PR**") have led to multiple regulatory inquiries, as well as customer complaints and arbitrations with aggregate claimed damages of USD 2.2 billion, of which claims with aggregate claimed damages of USD 1.2 billion have been resolved through settlements, arbitration or withdrawal of the claim. The claims are filed by clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and / or who used their UBS account assets as collateral for UBS non-purpose loans; customer complaint and arbitration allegations include fraud, misrepresentation and unsuitability of the funds and of the loans. A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2015, defendants' motion to dismiss was denied. Defendants' requests for permission to appeal that ruling were denied by the Puerto Rico Court of Appeals and the Puerto Rico Supreme Court. In 2014, a federal class action complaint also was filed against various UBS entities, certain members of UBS PR senior management and the co-manager of certain of the funds, seeking damages for investor losses in the funds during the period from

May 2008 through May 2014. In 2016, defendants' motion to dismiss was granted in part and denied in part. In 2015, a class action was filed in Puerto Rico state court against UBS PR seeking equitable relief in the form of a stay of any effort by UBS PR to collect on non-purpose loans it acquired from UBS Bank USA in December 2013 based on plaintiffs' allegation that the loans are not valid. The trial court denied defendant's motion to dismiss the action based on a forum selection clause in the loan agreements. The Puerto Rico Supreme Court reversed that decision and remanded the case back to the trial court for reconsideration.

In 2014, UBS reached a settlement with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico ("**OCFI**") in connection with OCFI's examination of UBS's operations from January 2006 through September 2013, pursuant to which UBS is paying up to an aggregate of USD 7.7 million in investor education contributions and restitution.

In 2015, the SEC and the Financial Industry Regulatory Authority ("**FINRA**") announced settlements with UBS PR of their separate investigations stemming from the 2013 market events. Without admitting or denying the findings in either matter, UBS PR agreed in the SEC settlement to pay USD 15 million and USD 18.5 million in the FINRA matter. UBS also understands that the DOJ is conducting a criminal inquiry into the impermissible reinvestment of non-purpose loan proceeds. UBS is cooperating with the authorities in this inquiry.

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico ("**System**") against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of USD 3 billion of bonds by the System in 2008 and sought damages of over USD 800 million. In December 2016, the court granted the System's request to join the action as a plaintiff, but ordered that plaintiffs must file an amended complaint. In March 2017, the court denied defendants' motion to dismiss the amended complaint.

Also, in 2013, an SEC Administrative Law Judge dismissed a case brought by the SEC against two UBS executives, finding no violations. The charges had stemmed from the SEC's investigation of UBS's sale of closed-end funds in 2008 and 2009, which UBS settled in 2012. Beginning in 2012, two federal class action complaints, which were subsequently consolidated, were filed against various UBS entities, certain of the funds and certain members of UBS PR senior management, seeking damages for investor losses in the funds during the period from January 2008 through May 2012 based on allegations similar to those in the SEC action. In 2016, the court denied plaintiffs' motion for class certification. In March 2017, the US Court of Appeals for the First Circuit denied plaintiffs' petition seeking permission to bring an interlocutory appeal challenging the denial of their motion for class certification.

In 2015, certain agencies and public corporations of the Commonwealth of Puerto Rico ("**Commonwealth**") defaulted on certain interest payments, in 2016, the Commonwealth defaulted on payments on its general obligation debt ("**GO Bonds**"), and in 2017 the Commonwealth defaulted on payments on its debt backed by the Commonwealth's Sales and Use Tax ("**COFINA Bonds**") as well as on bonds issued by the Commonwealth's Employee Retirement System ("ERS Bonds"). The funds hold significant amounts of both COFINA and ERS Bonds and the defaults on interest payments are expected to adversely affect dividends from the funds. Executive orders of the Governor that have diverted funds to pay for essential services instead of debt payments and stayed any action to enforce creditors' rights on the Puerto Rico bonds continue to be in effect. In 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board is authorized to impose, and has imposed, a stay on exercise of creditors' rights. In May and June 2017, the oversight board placed the GO, COFINA and ERS Bonds, among others, into a bankruptcy-like proceeding under the supervision of a Federal District Judge as authorized by the oversight board's enabling statute. These events, further defaults, any further legislative action to create a legal means of restructuring Commonwealth obligations or to impose additional oversight on the Commonwealth's finances, or any restructuring of the Commonwealth's obligations may increase the number of claims against UBS concerning Puerto Rico securities, as well as potential damages sought.

UBS's balance sheet at 30 September 2017 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which UBS has established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that UBS has recognized.

5. Foreign exchange, LIBOR and benchmark rates, and other trading practices

Foreign exchange-related regulatory matters: Following an initial media report in 2013 of widespread irregularities in the foreign exchange markets, UBS immediately commenced an internal review of its foreign exchange business, which includes UBS's precious metals and related structured products businesses. Numerous authorities commenced investigations concerning possible manipulation of foreign exchange markets and precious metals prices. In 2014 and 2015, UBS reached settlements with the UK Financial Conduct Authority ("**FCA**") and the US Commodity Futures Trading Commission ("**CFTC**") in connection with their foreign exchange investigations, FINMA issued an order concluding its formal proceedings relating to UBS's foreign exchange and precious metals businesses, and the Board of Governors of the Federal Reserve System ("**Federal Reserve Board**") and the Connecticut Department of Banking issued a Cease and Desist Order and assessed monetary penalties to UBS AG. In addition, the DOJ's Criminal Division ("**Criminal Division**") terminated the December 2012 Non-Prosecution Agreement ("**NPA**") with UBS AG related to UBS's submissions of benchmark interest rates and UBS AG pleaded guilty to one count of wire fraud, paid a fine and is subject to probation through January 2020. UBS has ongoing obligations to cooperate with these authorities and to undertake certain remediation. UBS has also been granted conditional immunity by the Antitrust Division of the DOJ ("**Antitrust Division**") and by authorities in other jurisdictions in connection with potential competition law violations relating to foreign exchange and precious metals businesses. Refer to Note 20b in the "Consolidated financial statements" section of the Annual Report 2016 and included in this Registration Document in Appendix 2 (*cf.* pages G-103-G-113 (inclusive)). for more information on regulatory actions related to foreign exchange and precious metals and grants of conditional immunity or leniency. Investigations relating to foreign exchange and precious metals matters by numerous authorities, including the CFTC, remain ongoing notwithstanding these resolutions.

Foreign exchange-related civil litigation: Putative class actions have been filed since 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. They allege collusion by the defendants and assert claims under the antitrust laws and for unjust enrichment. In 2015, additional putative class actions were filed in federal court in New York against UBS and other banks on behalf of a putative class of persons who entered into or held any foreign exchange futures contracts and options on foreign exchange futures contracts since January 2003. The complaints assert claims under the Commodity Exchange Act ("**CEA**") and the US antitrust laws. In 2015, a consolidated complaint was filed on behalf of both putative classes of persons covered by the US federal court class actions described above. UBS has entered into a settlement agreement that would resolve all of these US federal court class actions. The agreement, which has been preliminarily approved by the court and is subject to final court approval, requires, among other things, that UBS pay an aggregate of USD 141 million and provide cooperation to the settlement classes.

A putative class action has been filed in federal court in New York against UBS and other banks on behalf of participants, beneficiaries and named fiduciaries of plans qualified under the Employee Retirement Income Security Act of 1974 ("**ERISA**") for whom a defendant bank provided foreign currency exchange transactional services, exercised discretionary authority or discretionary control over management of such ERISA plan, or authorized or permitted the execution of any foreign currency exchange transactional services involving such plan's assets. The complaint asserts claims under ERISA. The parties filed a stipulation to dismiss the case with prejudice. The plaintiffs have appealed the dismissal. The appeals court heard oral argument in June 2017.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of a putative class of persons and businesses in the US who directly purchased foreign currency from the defendants and their co-conspirators for their own end use. That action has been transferred to federal court in New York. In March 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint. The plaintiffs filed an amended complaint in August 2017.

In 2016, a putative class action was filed in federal court in New York against UBS and numerous other banks on behalf of a putative class of persons and entities who had indirectly purchased FX instruments from a defendant or co-conspirator in the US. The complaint asserts claims under federal and state antitrust laws. In response to defendants' motion to dismiss, plaintiffs agreed to dismiss their complaint. In April and June 2017, two new putative class actions were filed in federal court in New York against UBS and numerous other banks on behalf of different proposed classes of indirect purchasers of currency, and a consolidated complaint was filed in June 2017.

In 2015, UBS was added to putative class actions pending against other banks in federal court in New York and other jurisdictions on behalf of putative classes of persons who had bought or sold physical precious metals and various precious metal products and derivatives. The complaints in these lawsuits assert claims under the antitrust laws and the CEA, and other claims. In October 2016, the court in New York granted UBS's motions to dismiss the putative class actions relating to gold and silver. Plaintiffs in those cases sought to amend their complaints to add new allegations about UBS, which the court granted. The plaintiffs filed their amended complaints in June 2017. In March 2017, the court in New York granted UBS's motion to dismiss the platinum and palladium action. In May 2017, plaintiffs in the platinum and palladium action filed an amended complaint that did not allege claims against UBS.

LIBOR and other benchmark-related regulatory matters: Numerous government agencies, including the SEC, the CFTC, the DOJ, the FCA, the UK Serious Fraud Office ("SFO"), the Monetary Authority of Singapore ("MAS"), the Hong Kong Monetary Authority ("HKMA"), FINMA, various state attorneys general in the US and competition authorities in various jurisdictions have conducted or are continuing to conduct investigations regarding potential improper attempts by UBS, among others, to manipulate LIBOR and other benchmark rates at certain times. In 2012, UBS reached settlements relating to benchmark interest rates with the FSA, the CFTC and the Criminal Division of the DOJ, and FINMA issued an order in its proceedings with respect to UBS relating to benchmark interest rates. In addition, UBS entered into settlements with the European Commission ("EC") and with the Swiss Competition Commission ("WEKO") regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives. UBS has ongoing obligations to cooperate with the authorities with whom UBS has reached resolutions and to undertake certain remediation with respect to benchmark interest rate submissions. UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO, in connection with potential antitrust or competition law violations related to certain rates. However, UBS has not reached a final settlement with WEKO as the Secretariat of WEKO has asserted that UBS does not qualify for full immunity. Refer to Note 20b in the "Consolidated financial statements" section of the Annual Report 2016 and included in this Registration Document in Appendix 2 (*cf.* pages G-103-G-113 (inclusive)) for more information on regulatory actions relating to benchmark rates and grants of conditional immunity or leniency. Investigations by certain governmental authorities remain ongoing notwithstanding these resolutions.

LIBOR and other benchmark-related civil litigation: A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. All of the complaints allege manipulation, through various means, of various benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, USD and SGD SIBOR and SOR, Australian BBSW and USD ISDAFIX, and seek unspecified compensatory and other damages under varying legal theories.

In 2013, the US district court in the USD LIBOR action dismissed the federal antitrust and racketeering claims of certain USD LIBOR plaintiffs and a portion of their claims brought under the CEA and state common law. Certain plaintiffs appealed the decision to the Second Circuit, which, in 2016, vacated the district court's ruling finding no antitrust injury and remanded the case back to the district court for a further determination on whether plaintiffs have antitrust standing. In December 2016, the district court again dismissed plaintiffs' antitrust claims, this time for lack of personal jurisdiction over UBS and other foreign banks. In 2014, the court in one of the Euroyen TIBOR lawsuits dismissed certain of the plaintiff's claims, including federal antitrust claims. In 2015, the same court dismissed plaintiff's federal racketeering claims and affirmed its previous dismissal of plaintiff's antitrust claims. In 2017, the court also dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds, as did the court in the CHF LIBOR action. Also in 2017, the courts in the EURIBOR and the SIBOR and SOR lawsuits dismissed the cases as to UBS and certain other foreign defendants for lack of personal jurisdiction. UBS and other defendants in other lawsuits including those related to GBP LIBOR and Australian BBSW have filed motions to dismiss. In 2016, UBS entered into an agreement with representatives of a class of bondholders to settle their USD LIBOR class action. The agreement has received preliminary court approval and remains subject to final approval. Since 2014, putative class actions have been filed in federal court in New York and New Jersey against UBS and other financial institutions, among others, on behalf of parties who entered into interest rate derivative transactions linked to ISDAFIX. The complaints, which have since been consolidated into an amended complaint, allege that the defendants conspired to manipulate ISDAFIX rates from January 2006 through June 2013, in violation of US antitrust laws and certain state laws, and seek unspecified compensatory damages, including treble damages. On 12 July 2017, the court overseeing the ISDAFIX class action preliminarily approved a settlement agreement between UBS AG and the plaintiffs, whereby UBS AG agreed to pay USD 14 million to settle the case in its entirety.

Government bonds: Putative class actions have been filed in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. The complaints generally allege that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction. They assert claims under the antitrust laws and the CEA and for unjust enrichment. The cases have been consolidated in the SDNY. Following filing of these complaints, UBS and reportedly other banks are responding to investigations and requests for information from various authorities regarding US Treasury securities and other government bond trading practices. As a result of its review to date, UBS has taken appropriate action.

With respect to additional matters and jurisdictions not encompassed by the settlements and order referred to above, UBS's balance sheet at 30 September 2017 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which UBS has established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that UBS has recognized.

6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver.
FINMA has issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and may continue to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among other things, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

UBS's balance sheet at 30 September 2017 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which UBS has established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that UBS has recognized.

7. Banco UBS Pactual tax indemnity

Pursuant to the 2009 sale of Banco UBS Pactual S.A. ("**Pactual**") by UBS to BTG Investments, LP ("**BTG**"), BTG has submitted contractual indemnification claims. The claims pertain principally to several tax assessments issued by the Brazilian tax authorities against Pactual relating to the period from December 2006 through March 2009, when UBS owned Pactual. These assessments are being challenged in administrative and judicial proceedings. In August 2017, UBS and BTG agreed to resolve the largest indemnification claim (UBS's portion of which was approximately BRL 2 billion) relating to a tax assessment that had disallowed goodwill amortization deductions. In connection with this resolution, UBS paid CHF 245 million to BTG, which then submitted the underlying tax assessment for resolution in a Brazilian tax amnesty program. Of the remaining BRL 732 million in indemnification claims, administrative courts have ruled in favor of BTG in respect of BRL 455 million of assessments related to profit-sharing plans, with the remainder of the assessments pending at various levels of the administrative or judicial court system.

8. Investigation of UBS's role in initial public offerings in Hong Kong

The Hong Kong Securities and Futures Commission ("**SFC**") has been conducting investigations into UBS's role as a sponsor of certain initial public offerings listed on the Hong Kong Stock Exchange. In 2016, the SFC informed UBS that it intends to commence action against UBS and certain UBS employees with respect to sponsorship work in those offerings, which could result in financial ramifications for UBS, including fines and obligations to pay investor compensation, and suspension of UBS's ability to provide corporate finance advisory services in Hong Kong for a period of time.

In January 2017, a writ was filed by the SFC with Hong Kong's High Court in which UBS was named as one of six defendants from whom the SFC was seeking investor compensation in an unspecified amount for losses incurred by certain shareholders of China Forestry Holdings Company Limited, for whom UBS acted as a sponsor in connection with their 2009 listing application. In August 2017, the SFC filed an amended writ that did not name UBS and some of the other defendants, thereby discontinuing this action against UBS.

The specific litigation, regulatory and other matters described above under items (1) to (8) include all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects as described in "Note 13 Provisions and contingent liabilities" to the UBS AG interim consolidated financial statements included in the UBS AG Third Quarter 2017 Report and included in this Registration Document in Appendix 9 (*cf.* page N-27-N-35 (inclusive)). The proceedings indicated below are matters that have recently been considered material, but are not currently considered material, by UBS. Besides the proceedings described above and below, there are no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened, of which UBS AG is aware) which may have, or have had in the recent past, significant effects on UBS AG Group's and/or UBS AG's financial position or profitability and are or have been pending during the last twelve months until the date of this document.

RMBS-related lawsuits concerning disclosures: UBS has been named as a defendant in lawsuits relating to its role as underwriter and issuer of RMBS. In April 2017, UBS reached a final settlement in a lawsuit brought in the US District Court for the District of Kansas by the National Credit Union Administration ("**NCUA**") as conservator for certain failed credit unions, asserting misstatements and omissions in the offering documents for USD 1.15 billion in original principal balance of RMBS purchased by the credit unions. UBS and the NCUA settled this matter for USD 445 million. A similar case brought by the NCUA in the SDNY was settled in 2016. UBS has indemnification rights against surviving third-party issuers or originators for losses or liabilities incurred by UBS in connection with certain of these matters.

## XII. Significant Changes in the Financial or Trading Position; Material Adverse Change in Prospects

As indicated in "Note 17 Events after the reporting period" to the UBS AG's interim consolidated financial statements included in the UBS AG Third Quarter 2017 Report and as included in this Registration Document in Appendix 9 (*cf.* page N-37), on 1 October 2017, UBS AG Group completed the sale of Asset Management's fund administration servicing units in Luxembourg and Switzerland to Northern Trust, resulting in a pre-tax gain on sale of approximately CHF 140 million. This gain will be recognized in the income statement within Asset Management in the fourth quarter of 2017. Other than this, there has been no significant change in the financial or trading position of UBS AG or UBS AG Group since 30 September 2017, which is the end of the last financial period for which interim financial information has been published.

There has been no material adverse change in the prospects of UBS AG or UBS AG Group since 31 December 2016.

## XIII. Material Contracts

No material contracts have been entered into outside of the ordinary course of UBS AG's or UBS AG Group's business, which could result in any member of the UBS AG Group being under an obligation or entitlement that is material to UBS AG's ability to meet its obligations to the investors in relation to the issued securities.

## XIV. Documents on Display

- The annual report of UBS Group AG and UBS AG as of 31 December 2016, comprising the introductory section, as well as the sections (1) Operating environment and strategy, (2) Financial and operating performance, (3) Risk, treasury and capital management, (4) Corporate governance, responsibility and compensation, (5) Financial statements (including the "Statutory auditor's report on the audit of the consolidated financial statements" and the "Report of Independent Registered Public Accounting Firm"), (6) Additional regulatory information, and the Appendix thereto;

- The UBS AG Standalone Financial Statements for the year ended 31 December 2016 and the "Report of the statutory auditor on the financial statements";

- The annual report of UBS Group AG and UBS AG as of 31 December 2015, comprising the introductory section, as well as the sections (1) Operating environment and strategy, (2) Financial and operating performance, (3) Risk, treasury and capital management, (4) Corporate governance, responsibility and compensation, (5) Consolidated financial statements (including the "Report of the statutory auditor and the independent registered public accounting firm on the consolidated financial statements"), (6) Legal entity financial and regulatory information (including the "Report of the statutory auditor on the financial statements"), (7) Additional regulatory information, and the Appendix thereto;

- The UBS Group First Quarter 2017 Report and the UBS AG First Quarter 2017 Report;

- The UBS Group Second Quarter 2017 Report and the UBS AG Second Quarter 2017 Report;

- The UBS Group Third Quarter 2017 Report and the UBS AG Third Quarter 2017 Report and

- The Articles of Association of UBS AG,

shall be maintained in printed format, for free distribution, at the offices of UBS AG for a period of twelve months after the publication of this document. In addition, the annual and quarterly reports, as well as quarterly result materials of UBS Group AG and UBS AG are published on UBS's website, at www.ubs.com/investors or a successor address. The Articles of Association of UBS AG are also available on UBS's Corporate Governance website, at www.ubs.com/ governance.

## Appendix 1 – Excerpts from the Annual Report 2015 as at 31 December 2015

It should be noted that the term "pro-forma" as used in this Appendix 1 does not refer to the term "pro forma financial information" within the meaning of Regulation (EC) 809/2004.

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To the General Meeting of

**UBS AG, Zurich and Basel**

Basel, 10 March 2016

## Report of the statutory auditor and the independent registered public accounting firm on the consolidated financial statements

As statutory auditor, we have audited the consolidated financial statements of UBS AG and subsidiaries which are comprised of the consolidated balance sheets as of 31 December 2015 and 2014, and the related consolidated statements of income , comprehensive income, changes in equity and cash flows, and notes thereto, for each of the three years in the period ended 31 December 2015 on pages 568 to 738.

### Board of Directors' responsibility

The Board of Directors is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), and the requirements of Swiss law. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

### Auditor's responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Swiss law, Swiss Auditing Standards, International Standards on Auditing and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion**

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of UBS AG and subsidiaries at 31 December 2015 and 2014, and the consolidated results of operations and the cash flows for each of the three years in the period ended 31 December 2015 in accordance with IFRS, as issued by the IASB, and comply with Swiss law.

## Report on other legal and regulatory requirements

We confirm that we meet the Swiss legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 Code of Obligations (CO) and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of consolidated financial statements in accordance with the instructions of the Board of Directors.

In accordance with Swiss law, we recommend that the consolidated financial statements submitted to you be approved.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the internal control over financial reporting of UBS AG and subsidiaries as of 31 December 2015, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework), and our report dated 10 March 2016 expresses an unqualified opinion thereon.

Ernst & Young Ltd

| | |
|---|---|
| Marie-Laure Delarue<br>Licensed Audit Expert<br>(Auditor in Charge) | Troy J. Butner<br>Certified Public Accountant (U.S.) |

Audited |

## Income statement

| | | For the year ended | | | % change from |
|---|---|---|---|---|---|
| *CHF million, except per share data* | Note | **31.12.15** | 31.12.14 | 31.12.13 | 31.12.14 |
| Interest income | 3 | **13,178** | 13,194 | 13,137 | 0 |
| Interest expense | 3 | **(6,449)** | (6,639) | (7,351) | (3) |
| Net interest income | 3 | **6,729** | 6,555 | 5,786 | 3 |
| Credit loss (expense) / recovery | 12 | **(117)** | (78) | (50) | 50 |
| Net interest income after credit loss expense | | **6,612** | 6,477 | 5,736 | 2 |
| Net fee and commission income | 4 | **17,184** | 17,076 | 16,287 | 1 |
| Net trading income | 3 | **5,696** | 3,841 | 5,130 | 48 |
| Other income | 5 | **1,112** | 632 | 580 | 76 |
| Total operating income | | **30,605** | 28,026 | 27,732 | 9 |
| Personnel expenses | 6 | **15,954** | 15,280 | 15,182 | 4 |
| General and administrative expenses | 7 | **8,219** | 9,377 | 8,380 | (12) |
| Depreciation and impairment of property, equipment and software | 16 | **918** | 817 | 816 | 12 |
| Amortization and impairment of intangible assets | 17 | **107** | 83 | 83 | 29 |
| Total operating expenses | | **25,198** | 25,557 | 24,461 | (1) |
| Operating profit / (loss) before tax | | **5,407** | 2,469 | 3,272 | 119 |
| Tax expense / (benefit) | 8 | **(908)** | (1,180) | (110) | (23) |
| Net profit / (loss) | | **6,314** | 3,649 | 3,381 | 73 |
| Net profit / (loss) attributable to preferred noteholders | | **77** | 142 | 204 | (46) |
| Net profit / (loss) attributable to non-controlling interests | | **3** | 5 | 5 | (40) |
| **Net profit / (loss) attributable to UBS AG shareholders** | | **6,235** | 3,502 | 3,172 | 78 |

## Statement of comprehensive income

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| **Comprehensive income attributable to UBS AG shareholders** | | | |
| **Net profit / (loss)** | **6,235** | 3,502 | 3,172 |
| | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | |
| **Foreign currency translation** | | | |
| Foreign currency translation movements, before tax | **(174)** | 1,839 | (440) |
| Foreign exchange amounts reclassified to the income statement from equity | **(90)** | 2 | (36) |
| Income tax relating to foreign currency translation movements | **(1)** | (7) | 5 |
| Subtotal foreign currency translation, net of tax | **(266)** | 1,834 | (471) |
| **Financial investments available-for-sale** | | | |
| Net unrealized gains / (losses) on financial investments available-for-sale, before tax | **180** | 335 | (57) |
| Impairment charges reclassified to the income statement from equity | **1** | 76 | 41 |
| Realized gains reclassified to the income statement from equity | **(298)** | (244) | (265) |
| Realized losses reclassified to the income statement from equity | **45** | 25 | 56 |
| Income tax relating to net unrealized gains / (losses) on financial investments available-for-sale | **8** | (52) | 71 |
| Subtotal financial investments available-for-sale, net of tax | **(64)** | 140 | (154) |
| **Cash flow hedges** | | | |
| Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax | **550** | 2,086 | (652) |
| Net realized (gains) / losses reclassified to the income statement from equity | **(1,199)** | (1,197) | (1,261) |
| Income tax relating to cash flow hedges | **131** | (196) | 393 |
| Subtotal cash flow hedges, net of tax | **(518)** | 693 | (1,520) |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | **(848)** | 2,667 | (2,145) |
| | | | |
| **Other comprehensive income that will not be reclassified to the income statement** | | | |
| **Defined benefit plans** | | | |
| Gains / (losses) on defined benefit plans, before tax | **322** | (1,454) | 1,178 |
| Income tax relating to defined benefit plans | **(19)** | 247 | (239) |
| Subtotal defined benefit plans, net of tax | **304** | (1,208) | 939 |
| **Property revaluation surplus** | | | |
| Gains on property revaluation, before tax | **0** | 0 | 0 |
| Net (gains) / losses reclassified to retained earnings | **0** | 0 | (6) |
| Income tax relating to gains on property revaluation | **0** | 0 | 0 |
| Subtotal changes in property revaluation surplus, net of tax | **0** | 0 | (6) |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | **304** | (1,208) | 933 |
| | | | |
| **Total other comprehensive income** | **(545)** | 1,459 | (1,211) |
| **Total comprehensive income attributable to UBS AG shareholders** | **5,690** | 4,961 | 1,961 |

Table continues on the next page.

## Statement of comprehensive income (continued)

Table continued from previous page.

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| **Comprehensive income attributable to preferred noteholders** | | | |
| **Net profit / (loss)** | **77** | 142 | 204 |
| **Other comprehensive income that will not be reclassified to the income statement** | | | |
| Foreign currency translation movements, before tax | **(59)** | 119 | 355 |
| Income tax relating to foreign currency translation movements | **0** | 0 | 0 |
| Subtotal foreign currency translation, net of tax | **(59)** | 119 | 355 |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | **(59)** | 119 | 355 |
| **Total comprehensive income attributable to preferred noteholders** | **18** | 260 | 559 |
| **Comprehensive income attributable to non-controlling interests** | | | |
| **Net profit / (loss)** | **3** | 5 | 5 |
| **Other comprehensive income that will not be reclassified to the income statement** | | | |
| Foreign currency translation movements, before tax | **(2)** | 3 | (1) |
| Income tax relating to foreign currency translation movements | **0** | 0 | 0 |
| Subtotal foreign currency translation, net of tax | **(2)** | 3 | (1) |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | **(2)** | 3 | (1) |
| **Total comprehensive income attributable to non-controlling interests** | **1** | 7 | 4 |
| **Total comprehensive income** | | | |
| **Net profit / (loss)** | **6,314** | 3,649 | 3,381 |
| **Other comprehensive income** | **(606)** | 1,580 | (857) |
| *of which: other comprehensive income that may be reclassified to the income statement* | ***(848)*** | *2,667* | *(2,145)* |
| *of which: other comprehensive income that will not be reclassified to the income statement* | ***243*** | *(1,087)* | *1,288* |
| **Total comprehensive income** | **5,709** | 5,229 | 2,524 |

## Balance sheet

| | | | | % change from |
|---|---|---|---|---|
| *CHF million* | Note | **31.12.15** | 31.12.14 | 31.12.14 |
| **Assets** | | | | |
| Cash and balances with central banks | | **91,306** | 104,073 | (12) |
| Due from banks | 10, 12 | **11,866** | 13,334 | (11) |
| Cash collateral on securities borrowed | 11, 26 | **25,584** | 24,063 | 6 |
| Reverse repurchase agreements | 11, 26 | **67,893** | 68,414 | (1) |
| Trading portfolio assets | 13, 24 | **124,047** | 138,156 | (10) |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *25* | ***51,943*** | *56,018* | *(7)* |
| Positive replacement values | 14, 24, 26 | **167,435** | 256,978 | (35) |
| Cash collateral receivables on derivative instruments | 11, 26 | **23,763** | 30,979 | (23) |
| Financial assets designated at fair value | 24, 26, 27 | **5,808** | 4,493 | 29 |
| Loans | 10, 12 | **312,723** | 315,984 | (1) |
| Financial investments available-for-sale | 15, 24 | **62,543** | 57,159 | 9 |
| Investments in associates | 30 | **954** | 927 | 3 |
| Property, equipment and software | 16 | **7,683** | 6,854 | 12 |
| Goodwill and intangible assets | 17 | **6,568** | 6,785 | (3) |
| Deferred tax assets | 8 | **12,833** | 11,060 | 16 |
| Other assets | 18 | **22,249** | 23,069 | (4) |
| **Total assets** | | **943,256** | 1,062,327 | (11) |
| **Liabilities** | | | | |
| Due to banks | 19 | **11,836** | 10,492 | 13 |
| Cash collateral on securities lent | 11, 26 | **8,029** | 9,180 | (13) |
| Repurchase agreements | 11, 26 | **9,653** | 11,818 | (18) |
| Trading portfolio liabilities | 13, 24 | **29,137** | 27,958 | 4 |
| Negative replacement values | 14, 24, 26 | **162,430** | 254,101 | (36) |
| Cash collateral payables on derivative instruments | 11, 26 | **38,282** | 42,372 | (10) |
| Financial liabilities designated at fair value | 20, 24, 26 | **62,995** | 75,297 | (16) |
| Due to customers | 19 | **402,522** | 410,979 | (2) |
| Debt issued | 21 | **82,359** | 91,207 | (10) |
| Provisions | 22 | **4,163** | 4,366 | (5) |
| Other liabilities | 8, 23 | **74,606** | 70,392 | 6 |
| **Total liabilities** | | **886,013** | 1,008,162 | (12) |
| **Equity** | | | | |
| Share capital | | **386** | 384 | 1 |
| Share premium | | **29,477** | 32,057 | (8) |
| Treasury shares | | **0** | (37) | (100) |
| Retained earnings | | **29,433** | 22,902 | 29 |
| Other comprehensive income recognized directly in equity, net of tax | | **(4,047)** | (3,199) | 27 |
| **Equity attributable to UBS AG shareholders** | | **55,248** | 52,108 | 6 |
| Equity attributable to preferred noteholders | | **1,954** | 2,013 | (3) |
| Equity attributable to non-controlling interests | | **41** | 45 | (9) |
| **Total equity** | | **57,243** | 54,165 | 6 |
| **Total liabilities and equity** | | **943,256** | 1,062,327 | (11) |

## Statement of changes in equity

| CHF million | Share capital | Share premium | Treasury shares | Retained earnings |
|---|---|---|---|---|
| **Balance as of 1 January 2013** | **384** | **33,862** | **(1,071)** | **16,491** |
| Issuance of share capital | 1 | | | |
| Acquisition of treasury shares | | | (846) | |
| Disposal of treasury shares | | | 887 | |
| Treasury share gains / (losses) and net premium / (discount) on own equity derivative activity | | 203 | | |
| Premium on shares issued and warrants exercised | | 30 | | |
| Employee share and share option plans | | 305 | | |
| Tax (expense) / benefit recognized in share premium | | 91 | | |
| Dividends | | (564)[2] | | |
| Equity classified as obligation to purchase own shares | | (9) | | |
| Preferred notes | | | | |
| New consolidations and other increases / (decreases) | | | | 6 |
| Deconsolidations and other decreases | | (11) | | |
| Total comprehensive income for the year | | | | 4,111 |
| *of which: Net profit / (loss)* | | | | *3,172* |
| *of which: Other comprehensive income that may be reclassified to the income statement, net of tax* | | | | |
| *of which: Other comprehensive income that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *939* |
| *of which: Other comprehensive income that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| **Balance as of 31 December 2013** | **384** | **33,906** | **(1,031)** | **20,608** |
| Issuance of share capital | 0 | | | |
| Acquisition of treasury shares | | | (953) | |
| Disposal of treasury shares | | | 1,946 | |
| Treasury share gains / (losses) and net premium / (discount) on own equity derivative activity | | 24 | | |
| Premium on shares issued and warrants exercised | | 802 | | |
| Employee share and share option plans | | (1,785) | | |
| Tax (expense) / benefit recognized in share premium | | 3 | | |
| Dividends | | (938)[2] | | |
| Equity classified as obligation to purchase own shares | | 46 | | |
| Preferred notes | | | | |
| New consolidations and other increases / (decreases) | | | | |
| Deconsolidations and other decreases | | | | |
| Total comprehensive income for the year | | | | 2,294 |
| *of which: Net profit / (loss)* | | | | *3,502* |
| *of which: Other comprehensive income that may be reclassified to the income statement, net of tax* | | | | |
| *of which: Other comprehensive income that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *(1,208)* |
| *of which: Other comprehensive income that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: Foreign currency translation* | *of which: Financial investments available-for-sale* | *of which: Cash flow hedges* | Total equity attributable to UBS AG shareholders | Preferred noteholders | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| **(3,715)** | *(6,954)* | *249* | *2,983* | **45,949** | **3,109** | **42** | **49,100** |
| | | | | 1 | | | 1 |
| | | | | (846) | | | (846) |
| | | | | 887 | | | 887 |
| | | | | 203 | | | 203 |
| | | | | 30 | | | 30 |
| | | | | 305 | | | 305 |
| | | | | 91 | | | 91 |
| | | | | (564) | (204) | (6) | (773) |
| | | | | (9) | | | (9) |
| | | | | 0 | (1,572) | | (1,572) |
| | | | | 6 | | | 6 |
| | | | | (11) | 0 | | (11) |
| (2,151) | *(471)* | *(154)* | *(1,520)* | 1,961 | 559 | 4 | 2,524 |
| | | | | *3,172* | *204* | *5* | *3,381* |
| *(2,145)* | *(471)* | *(154)* | *(1,520)* | *(2,145)* | | | *(2,145)* |
| | | | | *939* | | | *939* |
| | | | | *0* | *355* | *(1)* | *355* |
| **(5,866)** | *(7,425)* | *95* | *1,463* | **48,002** | **1,893** | **41** | **49,936** |
| | | | | 0 | | | 0 |
| | | | | (953) | | | (953) |
| | | | | 1,946 | | | 1,946 |
| | | | | 24 | | | 24 |
| | | | | 802 | | | 802 |
| | | | | (1,785) | | | (1,785) |
| | | | | 3 | | | 3 |
| | | | | (938) | (142) | (4) | (1,084) |
| | | | | 46 | | | 46 |
| | | | | 0 | 1 | | 1 |
| | | | | 0 | | 1 | 1 |
| | | | | 0 | | | 0 |
| 2,667 | *1,834* | *140* | *693* | 4,961 | 260 | 7 | 5,229 |
| | | | | *3,502* | *142* | *5* | *3,649* |
| *2,667* | *1,834* | *140* | *693* | *2,667* | | | *2,667* |
| | | | | *(1,208)* | | | *(1,208)* |
| | | | | *0* | *119* | *3* | *121* |

## Statement of changes in equity (continued)

| *CHF million* | Share capital | Share premium | Treasury shares | Retained earnings |
|---|---|---|---|---|
| **Balance as of 31 December 2014** | **384** | **32,057** | **(37)** | **22,902** |
| Issuance of share capital | 1 | | | |
| Acquisition of treasury shares | | | (292) | |
| Disposal of treasury shares | | | 328 | |
| Treasury share gains / (losses) and net premium / (discount) on own equity derivative activity | | 42 | | |
| Premium on shares issued and warrants exercised | | 290 | | |
| Employee share and share option plans | | (6) | | |
| Tax (expense) / benefit recognized in share premium | | 9 | | |
| Dividends | | (2,914)[2] | | (8) |
| Equity classified as obligation to purchase own shares | | 0 | | |
| Preferred notes | | | | |
| New consolidations and other increases / (decreases) | | | | |
| Deconsolidations and other decreases | | | | |
| Total comprehensive income for the year | | | | 6,538 |
| *of which: Net profit / (loss)* | | | | *6,235* |
| *of which: Other comprehensive income that may be reclassified to the income statement, net of tax* | | | | |
| *of which: Other comprehensive income that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *304* |
| *of which: Other comprehensive income that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| **Balance as of 31 December 2015** | **386** | **29,477** | **0** | **29,433** |

1 Excludes defined benefit plans that are recorded directly in retained earnings. 2 Reflects the payment out of the capital contribution reserve of UBS AG of CHF 0.75 (2014: CHF 0.25, 2013: CHF 0.15) per CHF 0.10 par value share.

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: Foreign currency translation* | *of which: Financial investments available-for-sale* | *of which: Cash flow hedges* | Total equity attributable to UBS AG shareholders | Preferred noteholders | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| **(3,199)** | *(5,591)* | *236* | *2,156* | **52,108** | **2,013** | **45** | **54,165** |
| | | | | 1 | | | 1 |
| | | | | (292) | | | (292) |
| | | | | 328 | | | 328 |
| | | | | 42 | | | 42 |
| | | | | 290 | | | 290 |
| | | | | (6) | | | (6) |
| | | | | 9 | | | 9 |
| | | | | (2,922) | (77) | (5) | (3,004) |
| | | | | 0 | | | 0 |
| | | | | 0 | 1 | | 1 |
| | | | | 0 | | | 0 |
| | | | | 0 | | (1) | (1) |
| (848) | *(266)* | *(64)* | *(518)* | 5,690 | 18 | 1 | 5,709 |
| | | | | *6,235* | *77* | *3* | *6,314* |
| *(848)* | *(266)* | *(64)* | *(518)* | *(848)* | | | *(848)* |
| | | | | *304* | | | *304* |
| | | | | *0* | *(59)* | *(2)* | *(61)* |
| (4,047) | *(5,857)* | *172* | *1,638* | 55,248 | 1,954 | 41 | 57,243 |

## UBS AG shares issued and treasury shares held

As of 31 December 2015, shares issued by UBS AG totaled 3,858,408,466 (31 December 2014: 3,844,560,913 shares).

As of 1 January 2015, UBS AG held 2,115,255 treasury shares, which were exchanged with UBS Group AG shares in 2015. No treasury shares were held as of 31 December 2015.

➔ **Refer to the "UBS shares" section of this report for more information**

## Conditional share capital

As of 31 December 2015, UBS AG's share capital could have been increased through the issuance of 136,200,312 shares upon exercise of employee options.

Additional conditional capital up to a maximum number of 380,000,000 shares was available as of 31 December 2015 for conversion rights and warrants granted in connection with the issuance of bonds or similar financial instruments.

Furthermore, UBS AG's share capital could have been increased by a maximum of 36,152,447 shares as of 31 December 2015 through the exercise of options granted in connection with the cash or title dividend distributed in 2015.

## Statement of cash flows

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15**[1] | 31.12.14[1] | 31.12.13[1] |
| **Cash flow from / (used in) operating activities** | | | |
| Net profit / (loss) | **6,314** | 3,649 | 3,381 |
| **Adjustments to reconcile net profit to cash flow from / (used in) operating activities** | | | |
| Non-cash items included in net profit and other adjustments: | | | |
| Depreciation and impairment of property, equipment and software | **918** | 817 | 816 |
| Amortization and impairment of intangible assets | **107** | 83 | 83 |
| Credit loss expense / (recovery) | **117** | 78 | 50 |
| Share of net profits of associates | **(169)** | (94) | (49) |
| Deferred tax expense / (benefit) | **(1,614)** | (1,635) | (545) |
| Net loss / (gain) from investing activities | **(934)** | (227) | (522) |
| Net loss / (gain) from financing activities | **(1,654)** | 2,135 | 3,988 |
| Other net adjustments | **3,628** | (7,250) | 5,326 |
| Net change in operating assets and liabilities: | | | |
| Due from / to banks | **1,768** | (1,235) | (7,551) |
| Cash collateral on securities borrowed and reverse repurchase agreements | **(2,712)** | 32,262 | 43,754 |
| Cash collateral on securities lent and repurchase agreements | **(2,909)** | (3,698) | (23,659) |
| Trading portfolio, replacement values and financial assets designated at fair value | **5,407** | (2,879) | 43,944 |
| Cash collateral on derivative instruments | **3,285** | (7,301) | (22,412) |
| Loans | **841** | (20,427) | (7,108) |
| Due to customers | **(17,362)** | 8,803 | 19,195 |
| Other assets, provisions and other liabilities | **7,516** | 4,751 | (3,935) |
| Income taxes paid, net of refunds | **(551)** | (600) | (382) |
| **Net cash flow from / (used in) operating activities** | **1,997** | 7,231 | 54,374 |
| **Cash flow from / (used in) investing activities** | | | |
| Purchase of subsidiaries, associates and intangible assets | **(13)** | (18) | (49) |
| Disposal of subsidiaries, associates and intangible assets[2] | **477** | 70 | 136 |
| Purchase of property, equipment and software | **(1,841)** | (1,915) | (1,236) |
| Disposal of property, equipment and software | **547** | 350 | 639 |
| Net (investment in) / divestment of financial investments available-for-sale[3] | **(7,605)** | 4,108 | 5,966 |
| **Net cash flow from / (used in) investing activities** | **(8,434)** | 2,596 | 5,457 |

Table continues on the next page.

## Statement of cash flows (continued)

Table continued from previous page.

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15**[1] | 31.12.14[1] | 31.12.13[1] |
| **Cash flow from / (used in) financing activities** | | | |
| Net short-term debt issued / (repaid) | **(6,404)** | (2,921) | (4,290) |
| Net movements in treasury shares and own equity derivative activity | **0** | (719) | (341) |
| Capital issuance | **0** | 0 | 1 |
| Distributions paid on UBS AG shares | **(2,626)** | (938) | (564) |
| Issuance of long-term debt, including financial liabilities designated at fair value | **47,790** | 40,982 | 28,014 |
| Repayment of long-term debt, including financial liabilities designated at fair value | **(44,221)** | (34,210) | (68,954) |
| Dividends paid and repayments of preferred notes | **(108)** | (110) | (1,415) |
| Net changes of non-controlling interests | **(5)** | (3) | (6) |
| **Net cash flow from / (used in) financing activities** | **(5,573)** | 2,081 | (47,555) |
| | | | |
| Effects of exchange rate differences on cash and cash equivalents | **(1,742)** | 8,522 | (2,705) |
| **Net increase / (decrease) in cash and cash equivalents** | **(13,753)** | 20,430 | 9,569 |
| Cash and cash equivalents at the beginning of the year | **116,715** | 96,284 | 86,715 |
| **Cash and cash equivalents at the end of the year** | **102,962** | 116,715 | 96,284 |
| | | | |
| **Cash and cash equivalents comprise:** | | | |
| Cash and balances with central banks | **91,306** | 104,073 | 80,879 |
| Due from banks | **10,732** | 11,772 | 11,117 |
| Money market paper[4] | **924** | 869 | 4,288 |
| **Total**[5] | **102,962** | 116,715 | 96,284 |
| | | | |
| **Additional information** | | | |
| Net cash flow from / (used in) operating activities include: | | | |
| Cash received as interest | **11,144** | 11,321 | 12,148 |
| Cash paid as interest | **5,267** | 5,360 | 7,176 |
| Cash received as dividends on equity investments, investment funds and associates[6] | **2,120** | 1,961 | 1,421 |

1 In 2015, UBS AG refined its definition of cash and cash equivalents to exclude cash collateral receivables on derivatives with bank counterparties. Prior periods were restated. Refer to Note 1b for more information. 2 Includes dividends received from associates. 3 Includes gross cash inflows from sales and maturities (CHF 93,584 million for the year ended 31 December 2015, CHF 140,438 million for the year ended 31 December 2014, CHF 153,887 million for the year ended 31 December 2013) and gross cash outflows from purchases of (CHF 101,189 million for the year ended 31 December 2015, CHF 136,330 million for the year ended 31 December 2014, CHF 147,921 million for the year ended 31 December 2013). 4 Money market paper is included in the balance sheet under Trading portfolio assets (31 December 2015: CHF 795 million, 31 December 2014: CHF 835 million, 31 December 2013: CHF 1,716 million) and Financial investments available-for-sale (31 December 2015: CHF 129 million, 31 December 2014: CHF 34 million, 31 December 2013: CHF 2,571 million). 5 CHF 3,963 million, CHF 4,178 million and CHF 4,534 million of cash and cash equivalents (mainly reflected in Due from banks) were restricted as of 31 December 2015, 31 December 2014 and 31 December 2013, respectively. Refer to Note 25 for more information. 6 Includes dividends received from associates (2015: CHF 114 million, 2014: CHF 54 million, 2013: CHF 69 million) reported within cash flow from / (used in) investing activities.

# Notes to the UBS AG consolidated financial statements

## Note 1 Summary of significant accounting policies

### a) Significant accounting policies

The significant accounting policies applied in the preparation of the consolidated financial statements (the "Financial Statements") of UBS AG and its subsidiaries ("UBS AG") are described in this note. These policies have been applied consistently in all years presented unless otherwise stated.

#### 1) Basis of accounting

UBS AG provides a broad range of financial services including: advisory services, underwriting, financing, market-making, asset management and brokerage on a global level, and retail banking in Switzerland. UBS AG was formed on 29 June 1998 when Swiss Bank Corporation and Union Bank of Switzerland merged. UBS Group AG was established in 2014 as the holding company of the Group and in 2015 it increased its ownership interest in UBS AG to 100%, following the successful completion of the procedure under article 33 of the Swiss Stock Exchange Act (SESTA procedure). Refer to Note 32 for more information.

The Financial Statements are prepared in accordance with IFRS as issued by the International Accounting Standards Board (IASB), and are presented in Swiss francs (CHF), the currency of Switzerland, where UBS AG is incorporated. On 10 March 2016, the Financial Statements were authorized for issue by the Board of Directors. The Financial Statements are prepared using uniform accounting policies for similar transactions and other events. Intercompany transactions and balances have been eliminated.

Disclosures incorporated in the "Risk, treasury and capital management" section of this Annual Report, which form part of these Financial Statements, are marked as audited. These disclosures relate to requirements under IFRS 7 *Financial Instruments: Disclosures* and IAS 1 *Presentation of Financial Statements* and are not repeated in the "Financial information – consolidated financial statements" section.

#### 2) Use of estimates

Preparation of these Financial Statements under IFRS requires management to make estimates and assumptions that affect reported amounts of assets, liabilities, income and expenses and disclosure of contingent assets and liabilities. These estimates and assumptions are based on the best available information. Actual results in the future could differ from such estimates and such differences may be material to the Financial Statements. Estimates are reviewed regularly and revisions are recognized in the period in which they occur.

The following notes to the Financial Statements contain information about those areas of estimation uncertainty considered to require critical judgment and have the most significant effect on the amounts recognized in the Financial Statements: Note 8 *Income taxes,* Note 12 *Allowances and provisions for credit losses,* Note 17 *Goodwill and intangible assets,* Note 22 *Provisions and contingent liabilities,* Note 24 *Fair value measurement,* Note 28 *Pension and other post-employment benefit plans,* Note 29 *Equity participation and other compensation plans* and Note 30 *Interests in subsidiaries and other entities.*

#### 3) Subsidiaries and structured entities

The Financial Statements comprise those of UBS AG and its subsidiaries, including controlled structured entities (SEs), presented as a single economic entity. *Equity attributable to non-controlling interests* is presented on the consolidated balance sheet within *Equity,* separately from *Equity attributable to UBS AG shareholders.*

UBS AG controls an entity when it has power over the relevant activities of the entity, exposure to variable returns and the ability to use its power to affect its returns.

Where an entity is governed by voting rights, control is generally indicated by a direct shareholding of more than one-half of the voting rights.

## Note 1 Summary of significant accounting policies (continued)

In other cases, the assessment of control is more complex and requires greater use of judgment. Where UBS AG has an interest in an entity that absorbs variability, UBS AG considers whether it has power over the entity that allows it to affect the variability of its returns. Consideration is given to all facts and circumstances to determine whether UBS AG has power over another entity, that is, the current ability to direct the relevant activities of an entity when decisions about those activities need to be made. Factors such as the purpose and design of the entity, rights held through contractual arrangements such as call rights, put rights or liquidation rights, as well as potential decision-making rights are all considered in this assessment. Where UBS AG has power over the relevant activities, a further assessment is made to determine whether, through that power, it has the ability to affect its own returns – that is, assessing whether power is held in a principal or agent capacity. Consideration is given to (i) the scope of decision-making authority, (ii) rights held by other parties, including removal or other participating rights and (iii) exposure to variability, including remuneration, relative to total variability of the entity as well as whether that exposure is different from other investors. If, after review of these factors, UBS AG concludes that it can exercise its power to affect its own returns, the entity is consolidated

Subsidiaries, including SEs, are consolidated from the date control is obtained and are deconsolidated from the date control ceases. Control, or the lack thereof, is reassessed if facts and circumstances indicate that there is a change to one or more of the elements needed to establish that control is present.

➔ **Refer to Note 30 for more information on subsidiaries and structured entities**

### *Structured entities (SEs)*

SEs are entities that have been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when voting rights relate only to administrative tasks and the relevant activities are directed by means of contractual arrangements. Such entities generally have a narrow and well-defined objective and include those historically referred to as special purpose entities (SPEs) and some investment funds. UBS AG assesses whether an entity is an SE by considering the nature of the activities of the entity as well as the substance of voting or similar rights afforded to other parties, including investors and independent boards or directors. UBS AG considers rights such as the ability to liquidate the entity or remove the decision maker to be similar to voting rights when the holder has the substantive ability to exercise such rights without cause. In the absence of such rights or in cases where the existence of such rights cannot be fully established, the entity is considered to be an SE.

UBS AG sponsors the formation of SEs and interacts with non-sponsored SEs for a variety of reasons including allowing clients to obtain or be exposed to particular risk profiles, to provide funding or to sell or purchase credit risk. Many SEs are established as bankruptcy remote, meaning that only the assets in the SE are available for the benefit of the SE's investors and such investors have no other recourse to UBS AG. UBS AG is deemed to be the sponsor of an SE when it is involved in its creation, establishment and promotion and facilitates its ongoing success through the transfer of assets or the provision of explicit or implicit financial, operational or other support. Where UBS AG acts purely as an advisor, administrator or placement agent for an SE created by a third-party entity, it is not considered to be sponsored by UBS AG.

Each individual entity is assessed for consolidation in line with the consolidation principles described above, considering the nature and scope of UBS AG's involvement. As the nature and extent of UBS AG's involvement is unique to each entity, there is no uniform consolidation outcome by entity – certain entities within a class are consolidated and others are not. When UBS AG does not consolidate an SE but has an interest in an SE or has sponsored an SE, additional disclosures are provided in Note 30 on the nature of these interests and sponsorship activities. The classes of SEs UBS AG is involved with include the following:

– *Securitization structured entities* are established to issue securities to investors that are backed by assets held by the SE and whereby (i) significant credit risk associated with the securitized exposures has been transferred to third parties and (ii) there is more than one risk position or tranche issued by the securitization vehicle in line with the Basel III securitization definition. All securitization entities are classified as SEs.
– *Client investment structured entities* are established predominantly for clients to invest in specific assets or risk exposures through purchasing notes issued by the SE, predominantly on a fixed-term basis. The SE may source assets via a transfer from UBS AG or through an external market transaction. In some cases, UBS AG may enter into derivatives with the SE to either align the cash flows of the entity with the investor's intended investment objective or to introduce other desired risk exposures. In certain cases, UBS AG may have interests in a third-party sponsored SE to hedge specific risks or participate in asset-backed financing.
– *Investment fund structured entities* have a collective investment objective, are managed by an investment manager and are either passively managed, such that any decision-making does not have a substantive effect on variability, or are actively managed and investors or their governing bodies do not have substantive voting or similar rights. UBS creates and sponsors a large number of funds in which it may have an interest through the receipt of variable management fees and/or a direct investment. In addition, UBS AG has interests in a number of funds created and sponsored by third parties, including exchange-traded funds and hedge funds, to hedge issued structured products.

## Note 1 Summary of significant accounting policies (continued)

*Business combinations*

Business combinations are accounted for using the acquisition method. As of the acquisition date, UBS AG recognizes the identifiable assets acquired and the liabilities assumed at their acquisition-date fair values. For each business combination, UBS AG measures the non-controlling interests in the acquiree either at fair value or at their proportionate share of the acquiree's identifiable net assets. Generally, non-controlling interests are present ownership interests that entitle their holders to a proportionate share of the net assets of the acquiree in the event of liquidation.

The cost of an acquisition is the aggregate of the assets transferred, the liabilities owed to former owners of the acquiree, and the equity instruments issued, measured at acquisition-date fair values. Acquisition-related costs are expensed as incurred. Any contingent consideration that may be transferred by UBS AG is recognized at fair value as of the date of acquisition.

If the contingent consideration is classified as an asset or liability, subsequent changes in the fair value of the contingent consideration are recognized in the income statement. If the contingent consideration is classified as equity, it is not remeasured and its subsequent settlement is accounted for within *Equity.* Any excess of the aggregate of the consideration transferred and the amount recognized for non-controlling interests over the net identifiable assets acquired and liabilities assumed is considered goodwill and is recognized as a separate asset on the balance sheet, initially measured at cost. If the fair value of the net assets of the subsidiary acquired exceeds the aggregate of the consideration transferred and the amount recognized for non-controlling interests, the difference is recognized in the income statement on the acquisition date.

**➔ Refer to Note 31 for more information on business combinations**

### 4) Associates and joint ventures

Investments in entities in which UBS AG has significant influence, but not control, over the financial and operating policies of the entity are classified as investments in associates and accounted for under the equity method of accounting. Normally, significant influence is indicated when UBS AG owns between 20% and 50% of a company's voting rights. Investments in associates are initially recognized at cost, and the carrying amount is increased or decreased after the date of acquisition to recognize UBS AG's share of the investee's net profit or loss (including net profit or loss recognized directly in equity). Interests in joint ventures are also accounted for under the equity method of accounting. A joint venture is subject to a contractual agreement between UBS AG and one or more third parties, which establishes joint control over the relevant activities and provides rights to the net assets of the entity. Interests in joint ventures are classified as *Investments in associates*.

If the reporting date of an associate or joint venture is different than UBS AG's reporting date, the most recently available financial statements of the associate or joint venture are used to apply the equity method. Adjustments are made for effects of significant transactions or events that may occur between that date and UBS AG's reporting date.

Investments in associates and interests in joint ventures are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. Refer to item 29 for more information.

**➔ Refer to Note 30 for more information on associates and joint ventures**

### 5) Recognition and derecognition of financial instruments

UBS AG recognizes financial instruments on its balance sheet when UBS AG becomes a party to the contractual provisions of the instruments, provided the recognition criteria are met. UBS AG also acts in a trustee or other fiduciary capacity, which results in the holding or placing of assets on behalf of individuals, trusts, retirement benefit plans and other institutions. Unless the recognition criteria are satisfied, these assets and the related income are excluded from UBS AG's Financial Statements, as they are not assets of UBS AG.

*Financial assets*

UBS AG enters into certain transactions where it transfers financial assets recognized on its balance sheet but retains either all or a portion of the risks and rewards of the transferred financial assets. If all or substantially all of the risks and rewards are retained, the transferred financial assets are not derecognized from the balance sheet. Transactions where transfers of financial assets result in UBS AG retaining all or substantially all risks and rewards include securities lending and repurchase transactions described under items 13 and 14. They also include transactions where financial assets are sold to a third party together with a total return swap that results in UBS AG retaining all or substantially all risks and rewards of the transferred assets. These types of transactions are accounted for as secured financing transactions.

In transactions where substantially all of the risks and rewards of ownership of a financial asset are neither retained nor transferred, UBS AG derecognizes the financial asset if control over the asset is surrendered. The rights and obligations retained following the transfer are recognized separately as assets and liabilities, respectively. In transfers where control over the financial asset is retained, UBS AG continues to recognize the asset to the extent of its continuing involvement, determined by the extent to which it is exposed to changes in the value of the transferred asset following the transfer. Examples of such transactions include written put options, acquired call options, or other instruments linked to the performance of the transferred asset.

**Note 1 Summary of significant accounting policies (continued)**

For the purposes of UBS AG's disclosures of transferred financial assets, a financial asset is typically considered to have been transferred when UBS AG a) transfers the contractual rights to receive the cash flows of the financial asset or b) retains the contractual rights to receive the cash flows of that asset, but assumes a contractual obligation to pay the cash flows to one or more entities.

Where financial assets have been pledged as collateral or in similar arrangements, they are considered to have been transferred if the counterparty has received the contractual right to the cash flows of the pledged assets, as may be evidenced, for example, by the counterparty's right to sell or repledge the assets. Where the counterparty to the pledged financial assets has not received the contractual right to the cash flows, the assets are considered pledged, but not transferred.

**➔ Refer to Note 25b and 25c for more information on transferred financial assets**

*Financial liabilities*

UBS AG derecognizes a financial liability from its balance sheet when it is extinguished, such as when the obligation specified in the contract is discharged, cancelled or has expired. When an existing financial liability is exchanged for a new one from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability with any difference in the respective carrying amounts being recognized in the income statement.

### 6) Determination of fair value

Fair value is the price that would be received for the sale of an asset or paid to transfer a liability in an orderly transaction between market participants in the principal market (or most advantageous market, in the absence of a principal market) as of the measurement date.

**➔ Refer to Note 24 for more information on fair value measurement**

### 7) Trading portfolio assets and liabilities

Non-derivative financial assets and liabilities are classified at acquisition as held for trading and presented in the trading portfolio if they are a) acquired or incurred principally for the purpose of selling or repurchasing in the near term, or b) part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking.

The trading portfolio includes non-derivative financial instruments (including those with embedded derivatives) and commodities. Financial instruments that are considered derivatives in their entirety generally are presented on the balance sheet as *Positive replacement values* or *Negative replacement values.* Refer to item 15 for more information. The trading portfolio includes recognized assets and liabilities relating to proprietary, hedging and client-related business.

*Trading portfolio assets* include debt instruments (including those in the form of securities, money market paper and traded corporate and bank loans), equity instruments, assets held under unit-linked contracts and precious metals and other commodities owned by UBS AG (long positions). *Trading portfolio liabilities* include obligations to deliver financial instruments such as debt and equity instruments which UBS AG has sold to third parties but does not own (short positions).

Assets and liabilities in the trading portfolio are measured at fair value. Gains and losses realized on disposal or redemption of these assets and liabilities and unrealized gains and losses from changes in the fair value of these assets and liabilities are reported as *Net trading income.* Interest and dividend income and expense on these assets and liabilities are included in *Interest income* or *Interest expense*.

UBS AG uses settlement date accounting when recognizing assets and liabilities in the trading portfolio. From the date a purchase transaction is entered into (trade date) until settlement date, UBS AG recognizes any unrealized profits and losses arising from changes in fair value in *Net trading income.* The corresponding receivable or payable is presented on the balance sheet as a *Positive replacement value* or *Negative replacement value*. On settlement date, the resulting financial asset is recognized on the balance sheet at the fair value of the consideration given or received, plus or minus the change in fair value of the contract since the trade date. From the trade date of a sales transaction, unrealized profits and losses are no longer recognized and, on settlement date, the asset is derecognized.

*Trading portfolio assets* transferred to external parties that do not qualify for derecognition (refer to item 5 for more information) and where the transferee has obtained the right to sell or repledge the assets continue to be classified on the UBS AG balance sheet as *Trading portfolio assets* but are identified as *Assets pledged as collateral which may be sold or repledged by counterparties.* Such assets continue to be measured at fair value.

**➔ Refer to Note 13 and 24 for more information on trading portfolio assets and liabilities.**

**Note 1 Summary of significant accounting policies (continued)**

## 8) Financial assets and financial liabilities designated at fair value through profit or loss

A financial instrument may be designated at fair value through profit or loss only upon initial recognition and this designation cannot be changed subsequently. Financial assets and financial liabilities designated at fair value are presented on separate lines on the face of the balance sheet. The fair value option can be applied only if one of the following criteria is met:

– the financial instrument is a hybrid instrument that includes a substantive embedded derivative;
– the financial instrument is part of a portfolio that is risk managed on a fair value basis and reported to senior management on that basis or
– the application of the fair value option eliminates or significantly reduces an accounting mismatch that would otherwise arise.

UBS AG has used the fair value option to designate most of its issued hybrid debt instruments as financial liabilities designated at fair value through profit or loss, on the basis that such financial instruments include embedded derivatives and/or are managed on a fair value basis. Such hybrid debt instruments predominantly include the following:

– *Equity-linked bonds or notes:* linked to a single stock, a basket of stocks or an equity index;
– *Credit-linked bonds or notes:* linked to the performance (coupon and/or redemption amount) of single names (such as a company or a country) or a basket of reference entities and
– *Rates-linked bonds or notes:* linked to a reference interest rate, interest rate spread or formula.

The fair value option is also applied to certain loans and loan commitments, otherwise accounted for at amortized cost, which are hedged predominantly with credit derivatives. The application of the fair value option to the loans and loan commitments reduces an accounting mismatch, as the credit derivatives are accounted for as derivative instruments at fair value through profit or loss. Similarly, UBS AG has applied the fair value option to certain structured loans and reverse repurchase and securities borrowing agreements which are part of portfolios managed on a fair value basis.

The fair value option is applied to assets held to hedge deferred cash-settled employee compensation awards, in order to reduce an accounting mismatch that would otherwise arise due to the liability being measured on a fair value basis.

Fair value changes related to financial instruments designated at fair value through profit or loss are recognized in *Net trading income*. Interest income and interest expense on financial assets and liabilities designated at fair value through profit or loss are recognized in *Interest income on financial assets designated at fair value* or *Interest expense on financial liabilities designated at fair value,* respectively.

UBS AG applies the same recognition and derecognition principles to financial instruments designated at fair value as to financial instruments in the trading portfolio. Refer to items 5 and 7 for more information.

**➔ Refer to Notes 3, 20, 24e and 27d for more information on financial assets and liabilities designated at fair value**

## 9) Financial investments classified as available-for-sale

Financial investments classified as available-for-sale are non-derivative financial assets that are not classified as held for trading, designated at fair value through profit or loss, or loans and receivables. They are recognized on a settlement date basis.

Financial investments classified as available-for-sale include: (a) debt securities held as part of a large multi-currency portfolio of unencumbered, high-quality assets managed centrally by Corporate Center – Group Asset and Liability Management, a majority of which is short-term, (b) strategic equity investments, (c) certain investments in real estate funds, (d) certain equity instruments including private equity investments, and (e) debt instruments and non-performing loans acquired in the secondary market.

Financial investments that are classified as available-for-sale are recognized initially at fair value less transaction costs and are measured subsequently at fair value. Unrealized gains and losses are reported in *Other comprehensive income* within *Equity,* net of applicable income taxes, until such investments are sold, collected or otherwise disposed of, or until any such investment is determined to be impaired. Unrealized gains before tax are presented separately from unrealized losses before tax in Note 15.

For monetary instruments (such as debt securities), foreign exchange translation gains and losses determined by reference to the amortized cost basis of the instruments are recognized in *Net trading income*. Foreign exchange translation gains and losses related to other changes in fair value are recognized in *Other comprehensive income* within *Equity.* Foreign exchange translation gains and losses associated with non-monetary instruments (such as equity securities) are part of the overall fair value change of the instruments and are recognized in *Other comprehensive income* within *Equity.*

Interest and dividend income on financial investments classified as available-for-sale are included in *Interest and dividend income from financial investments available-for-sale. Interest* income is determined by reference to the instrument's amortized cost basis using the effective interest rate (EIR).

On disposal of an investment, any related accumulated unrealized gains or losses included in *Equity* are reclassified to the income statement and reported in *Other income. Gains* or losses on disposal are determined using the average cost method.

## Note 1 Summary of significant accounting policies (continued)

At each balance sheet date, UBS AG assesses whether indicators of impairment are present for an available-for-sale investment. An available-for-sale investment is impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the investment, the estimated future cash flows from the investment have decreased. A significant or prolonged decline in the fair value of an available-for-sale equity instrument below its original cost is considered objective evidence of impairment. In the event of a significant decline in fair value below its original cost (20%) or a prolonged decline (six months), an impairment is recorded unless facts and circumstances clearly indicate that the decline in value, on its own, is not evidence of an impairment.

For debt investments, objective evidence of impairment includes significant financial difficulty of the issuer or counterparty, default or delinquency in interest or principal payments, or it becoming probable that the borrower will enter bankruptcy or financial reorganization. If an available-for-sale financial investment is determined to be impaired, the related cumulative net unrealized loss previously recognized in *Other comprehensive income* within *Equity* is reclassified to the income statement within *Other income*. For equity instruments, any further loss is recognized directly in the income statement, whereas for debt instruments, any further loss is recognized in the income statement only if there is additional objective evidence of impairment. After an impairment of an equity instrument that is classified as available-for-sale, increases in the fair value are reported in *Other comprehensive income* within *Equity.* Subsequent increases in the fair value of debt instruments up to an amount that equals their amortized cost in original currency are recognized in *Other income,* provided that the fair value increase is related to an event occurring after the impairment loss was recorded. Increases in excess of that amount are reported in *Other comprehensive income* within *Equity.*

UBS AG applies the same recognition and derecognition principles to financial assets classified as available-for-sale as to financial instruments in the trading portfolio (refer to items 5 and 7 for more information), except that unrealized gains and losses between trade date and settlement date are recognized in *Other comprehensive income* within *Equity* rather than in the income statement.

**➔ Refer to Note 15 and 24 for more information on financial investments available-for-sale**

### 10) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market, not classified as held for trading, not designated at fair value through profit and loss or classified as available-for-sale, and are not assets for which UBS AG may not recover substantially all of its initial net investment other than because of credit deterioration. Financial assets classified as loans and receivables include:
– originated loans where funding is provided directly to the borrower;
– participation in a loan from another lender and purchased loans; and
– securities which were classified as loans and receivables at acquisition date, such as municipal auction rate securities in the Corporate Center – Non-core and Legacy Portfolio (refer to Note 27c for more information).

Loans and receivables are recognized when UBS AG becomes a party to the contractual provisions of the instrument, which is when funding is advanced to borrowers. They are recorded initially at fair value, based on the amount provided to originate or purchase the assets, together with any transaction costs directly attributable to the acquisition. Subsequently, they are measured at amortized cost using the EIR method, less allowances for credit losses. Refer to item 11 for information on allowances for credit losses and to Note 27a for an overview of the financial assets classified as loans and receivables.

Interest on loans and receivables is included in *Interest earned on loans and advances* and is recognized on an accrual basis. Upfront fees and direct costs relating to loan origination, refinancing or restructuring as well as to loan commitments are generally deferred and amortized to *Interest earned on loans and advances* over the life of the loan using the EIR method. For loan commitments that are not expected to result in a loan being advanced, the fees are recognized in *Net fee and commission income* over the commitment period. For loan syndication fees where UBS AG does not retain a portion of the syndicated loan, or where UBS AG does retain a portion of the syndicated loan at the same effective yield for comparable risk as other participants, fees are credited to *Net fee and commission income* when the services have been provided.

#### *Presentation of receivables from central banks*

Deposits with central banks that are available on demand are presented on the balance sheet as *Cash and balances with central banks*. All longer-dated receivables with central banks are presented under *Due from banks*.

## Note 1 Summary of significant accounting policies (continued)

*Financial assets reclassified to loans and receivables*

When a financial asset is reclassified from held for trading to loans and receivables, the financial asset is reclassified at its fair value on the date of reclassification. Any gain or loss recognized in the income statement before reclassification is not reversed. The fair value of a financial asset on the date of reclassification becomes its cost basis going forward. In 2008 and 2009, UBS AG determined that certain financial assets classified as held for trading were no longer held for the purpose of selling or repurchasing in the near term and that UBS AG had the intention and ability to hold these assets for the foreseeable future, considered to be a period of approximately twelve months from the reclassification. Therefore, these assets were reclassified from held for trading to loans and receivables.

**➔ Refer to Note 27c for more information on reclassified assets**

*Renegotiated loans*

A renegotiated or restructured loan is a loan for which the terms have been modified or for which additional collateral has been requested that was not contemplated in the original contract.

Typical key features of terms and conditions granted through renegotiation to avoid default include special interest rates, postponement of interest or amortization payments, modification of the schedule of repayments or amendment of loan maturity. There is no change in the EIR following a renegotiation.

If a loan is renegotiated with preferential conditions (i.e., new or modified terms and conditions are agreed which do not meet the normal market criteria for the quality of the obligor and the type of loan), the position is still classified as non-performing and is rated as being in counterparty default. It will remain so until the loan is collected or written off and will be assessed for impairment on an individual basis.

If a loan is renegotiated on a non-preferential basis (e.g., additional collateral is provided by the client, or new terms and conditions are agreed which meet the normal market criteria, for the quality of the obligor and the type of loan), the loan will be re-rated using UBS AG's regular rating scale. In these circumstances, the loan is removed from impaired status and included in the collective assessment of loan loss allowances, unless an indication of impairment exists, in which case the loan is assessed for impairment on an individual basis. For the purposes of measuring credit losses within the collective loan loss assessment, these loans are not segregated from other loans which have not been renegotiated. Management regularly reviews all loans to ensure that all criteria according to the loan agreement continue to be met and that future payments are likely to occur. Refer to item 11 for more information on allowances and provisions for credit losses.

A restructuring of a loan could lead to a fundamental change in the terms and conditions of a loan, resulting in the original loan being derecognized and a new loan being recognized.

If a loan is derecognized in these circumstances, the new loan is measured at fair value at initial recognition. Any allowance taken to date against the original loan is derecognized and is not attributed to the new loan. Consequently, the new loan is assessed for impairment on an individual basis. If the loan is not impaired, the loan is included within the general collective loan assessment for the purpose of measuring credit losses.

### 11) Allowances and provisions for credit losses

An allowance or provision for credit losses is established if there is objective evidence that UBS AG will be unable to collect all amounts due (or the equivalent thereof) on a claim, based on the original contractual terms due to credit deterioration of the issuer or counterparty. A claim means a loan or receivable carried at amortized cost, or a commitment such as a letter of credit, a guarantee, or another similar instrument. Objective evidence of impairment includes significant financial difficulty of the issuer or counterparty, default or delinquency in interest or principal payments, or a likelihood that the borrower will enter bankruptcy or financial reorganization.

An allowance for credit losses is reported as a reduction of the carrying value of a claim on the balance sheet. For an off-balance-sheet item, such as a commitment, a provision for credit loss is reported in *Provisions*. Changes to allowances and provisions for credit losses are recognized as *Credit loss expense / recovery*.

Allowances and provisions for credit losses are evaluated at both a counterparty-specific level and collectively based on the following principles:

*Counterparty-specific:* A loan is considered impaired when management determines that it is probable that UBS AG will not be able to collect all amounts due (or the equivalent value thereof) based on the original contractual terms. Individual credit exposures are evaluated based on the borrower's overall financial condition, resources and payment record, the prospects of support from contractual guarantors and, where applicable, the realizable value of any collateral. The estimated recoverable amount is the present value, calculated using the claim's original EIR, of expected future cash flows including amounts that may result from restructuring or the liquidation of collateral. If a loan has a variable interest rate, the discount rate used for calculating the recoverable amount is the current EIR. Impairment is measured and allowances for credit losses are established based on the difference between the carrying amount and the estimated recoverable amount. Upon impairment, the accrual of interest income based on the original terms of the loan is discontinued. The increase in the present value of the impaired loan due to the passage of time is reported as *Interest income*.

**Note 1 Summary of significant accounting policies (continued)**

All impaired loans are reviewed and analyzed at least annually. Any subsequent changes to the amounts and timing of the expected future cash flows compared with prior estimates result in a change in the allowance for credit losses and are charged or credited to *Credit loss expense / recovery*. An allowance for impairment is reversed only when the credit quality has improved to such an extent that there is reasonable assurance of timely collection of principal and interest in accordance with the original contractual terms of the claim, or the equivalent value thereof. A write-off is made when all or part of a claim is deemed uncollectible or forgiven. Write-offs reduce the principal amount of a claim and are charged against previously established allowances for credit losses or, if no allowance has been established previously, directly to *Credit loss expense / recovery*. Recoveries, in part or in full, of amounts previously written off are credited to *Credit loss expense / recovery*.

A loan is classified as non-performing when the payment of interest, principal or fees is overdue by more than 90 days, when insolvency proceedings have commenced, or when obligations have been restructured on preferential terms. Loans are evaluated individually for impairment when amounts have been overdue by more than 90 days, or if other objective evidence indicates that a loan may be impaired.

*Collectively:* All loans for which no impairment is identified at a counterparty-specific level are grouped on the basis of UBS AG's internal credit grading system that considers credit risk characteristics such as asset type, industry, geographical location, collateral type, past-due status and other relevant factors, to collectively assess whether impairment exists within a portfolio. Future cash flows for a group of financial assets that are collectively evaluated for impairment are estimated on the basis of historical loss experience for assets with credit risk characteristics similar to those in the group. Historical loss experience is adjusted on the basis of current observable data to reflect the effects of current conditions of the group of financial assets on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not exist currently in the portfolio. Estimates of changes in future cash flows for the group of financial assets reflect, and are directionally consistent with, changes in related observable data from year to year. The methodology and assumptions used for estimating future cash flows for the group of financial assets are reviewed regularly to reduce any differences between loss estimated and actual loss experience. Allowances for collective impairment assessments are recognized as *Credit loss expense / recovery* and result in an offset to the aggregated loan position. As the allowance cannot be allocated to individual loans, the loans are not considered to be impaired and interest is accrued on each loan according to its contractual terms. If objective evidence becomes available that indicates that an individual financial asset is impaired, it is removed from the group of financial assets assessed for impairment on a collective basis and is assessed separately as a counterparty-specific claim.

*Reclassified securities and similar acquired securities carried at amortized cost:* Estimated cash flows associated with financial assets reclassified from the held for trading category to loans and receivables in accordance with the requirements in item 10 and other similar assets acquired subsequently are reviewed periodically. Adverse revisions in cash flow estimates related to credit events are recognized in the income statement as *Credit loss expense / recovery*. For a reclassified loan, a change in expectation regarding the recoverability of the security and its future cash receipts requires an adjustment to the EIR on the loan from the date of change (refer to Note 27c for more information).

**➔ Refer to Note 12 for more information on allowances and provisions for credit losses**

## 12) Securitization structures set up by UBS AG

UBS AG securitizes certain financial assets, generally selling *Trading portfolio assets* to SEs that issue securities to investors. UBS AG applies the policies set out in item 3 in determining whether the respective SE must be consolidated and those set out in item 5 in determining whether derecognition of transferred financial assets is appropriate. The following statements mainly apply to transfers of financial assets that qualify for derecognition.

Gains or losses related to the sale of *Trading portfolio assets* involving a securitization are recognized when the derecognition criteria are satisfied; the resulting gain or loss is included in *Net trading income*.

Interests in the securitized financial assets may be retained in the form of senior or subordinated tranches, interest-only strips or other residual interests (retained interests). Retained interests are primarily recorded in *Trading portfolio assets* and are carried at fair value. Synthetic securitization structures typically involve derivative financial instruments for which the principles set out in item 15 apply.

## Note 1 Summary of significant accounting policies (continued)

UBS AG acts as structurer and placement agent in various mortgage-backed securities (MBS) and other asset-backed securities (ABS) securitizations. In such capacity, UBS AG may purchase collateral on its own behalf or on behalf of clients during the period prior to securitization. UBS AG then typically sells the collateral into designated trusts upon closing of the securitization. In other securitizations, UBS AG may only provide financing to a designated trust in order to fund the purchase of collateral by the trust prior to securitization. Furthermore, UBS AG underwrites the offerings to investors, earning fees for its placement and structuring services. Consistent with the valuation of similar inventory, fair value of retained tranches is initially and subsequently determined using market price quotations where available or internal pricing models that utilize variables such as yield curves, prepayment speeds, default rates, loss severity, interest rate volatilities and spreads. Where possible, assumptions based on observable transactions are used to determine the fair value of retained interests, but for some interests substantially no observable information is available.

**➔ Refer to Note 30c for more information on the UBS AG's involvement with securitization vehicles**

### 13) Securities borrowing and lending

Securities borrowing and securities lending transactions are generally entered into on a collateralized basis. In such transactions, UBS AG typically borrows or lends equity and debt securities in exchange for securities or cash collateral. Additionally, UBS AG borrows securities from its clients' custody accounts in exchange for a fee. The transactions are normally conducted under standard agreements employed by financial market participants and are undertaken with counterparties subject to UBS AG's normal credit risk control processes. UBS AG monitors on a daily basis the market value of the securities received or delivered and requests or provides additional collateral or returns or recalls surplus collateral in accordance with the underlying agreements.

Cash collateral received is recognized with a corresponding obligation to return it (*Cash collateral on securities lent*) and cash collateral delivered is derecognized and a corresponding receivable reflecting UBS AG's right to receive it back is recorded (*Cash collateral on securities borrowed*). The securities which have been transferred are not recognized on, or derecognized from, the balance sheet unless the risks and rewards of ownership are also transferred. Refer to item 5 for more information. UBS AG-owned securities transferred to a borrower that is granted the right to sell or repledge those transferred securities are presented on the balance sheet as *Trading portfolio assets, of which: assets pledged as collateral which may be sold or repledged by counterparties.* Securities received in a borrowing transaction are disclosed as off-balance-sheet items if UBS AG has the right to resell or repledge them, with additional disclosure provided for securities that UBS AG has actually resold or repledged. The sale of securities which is settled by delivering securities received in a borrowing transaction generally triggers the recognition of a trading liability (short sale). Where securities are either received or delivered in lieu of cash (securities-for-securities transactions), neither the securities received or delivered nor the obligation to return or right to receive the securities are recognized on the balance sheet, as derecognition criteria are not met. Refer to item 5 for more information.

Interest is recognized in the income statement on an accrual basis and is recorded as *Interest income* or *Interest expense. Interest income* includes interest earned on securities borrowing, and negative interest, including fees, on securities lending. *Interest expense* includes interest on securities lent and negative interest, including fees, on securities borrowing.

**➔ Refer to Notes 11, 25 and 26 for more information on securities borrowing and lending**

### 14) Repurchase and reverse repurchase transactions

Securities purchased under agreements to resell (*Reverse repurchase agreements*) and securities sold under agreements to repurchase (*Repurchase agreements*) are treated as collateralized financing transactions. Nearly all reverse repurchase and repurchase agreements involve debt instruments, such as bonds, notes or money market paper. The transactions are normally conducted under standard agreements employed by financial market participants and are undertaken with counterparties subject to UBS AG's normal credit risk control processes. UBS AG monitors on a daily basis the market value of the securities received or delivered and requests or provides additional collateral or returns or recalls surplus collateral in accordance with the underlying agreements.

In a reverse repurchase agreement, the cash delivered is derecognized and a corresponding receivable, including accrued interest, is recorded in the balance sheet line *Reverse repurchase agreements,* representing UBS AG's right to receive the cash back. Similarly, in a repurchase agreement, the cash received is recognized and a corresponding obligation, including accrued interest, is recorded in the balance sheet line *Repurchase agreements*. Securities received under reverse repurchase agreements and securities delivered under repurchase agreements are not recognized on or derecognized from the balance sheet, unless the risks and rewards of ownership are transferred. UBS AG-owned securities transferred to a recipient who is granted the right to resell or repledge them are presented on the balance sheet as *Trading portfolio assets, of which: assets*

*pledged as collateral which may be sold or repledged by counterparties.* Securities received in reverse repurchase agreements are disclosed as off-balance-sheet items if UBS AG has the right to resell or repledge them, with additional disclosure provided for securities that UBS AG has actually resold or repledged (refer to Note 25d for more information). Additionally, the sale of securities which is settled by delivering securities received in reverse repurchase transactions generally triggers the recognition of a trading liability (short sale).

**Note 1 Summary of significant accounting policies (continued)**

Interest is recognized in the income statement on an accrual basis and is recorded as *Interest income* or *Interest expense*. *Interest income* includes interest earned on reverse repurchase agreements and negative interest on repurchase agreements. *Interest expense* includes interest on repurchase agreements and negative interest on reverse repurchase agreements.

UBS AG generally offsets reverse repurchase agreements and repurchase agreements with the same counterparty, maturity, currency and Central Securities Depository (CSD) in accordance with the relevant accounting requirements. Refer to item 35 for more information.

**➔ Refer to Notes 11, 25 and 26 for more information on repurchase and reverse repurchase transactions**

### 15) Derivative instruments and hedge accounting

Derivative instruments that UBS AG enters into are initially recognized, and remain carried, at fair value. Fair value changes are generally recognized in the income statement unless and to the extent they are designated in hedge relationships which require recognition of the effective portion of such changes within other comprehensive income.

Derivative instruments are generally reported on the balance sheet as *Positive replacement values* or *Negative replacement values*. Exchange-traded derivatives that economically settle on a daily basis, and certain OTC derivatives that in substance net settle on a daily basis, are classified as *Cash collateral receivables on derivative instruments* or *Cash collateral payables on derivative instruments.* Products that receive this treatment include futures contracts, 100% daily margined exchange-traded options and interest rate swaps transacted with the London Clearing House. Changes in the fair value of derivative instruments are recorded in *Net trading income,* unless the derivatives are designated and effective as hedging instruments in certain types of hedge accounting relationships.

**➔ Refer to Note 14 for more information on derivative instruments and hedge accounting**

#### *Hedge accounting*

UBS AG uses derivative instruments as part of its risk management activities to manage exposures particularly to interest rate and foreign currency risks, including exposures arising from forecast transactions. If derivative and non-derivative instruments meet certain criteria specified below, they may be designated as hedging instruments in hedges of the change in fair value of recognized assets or liabilities (fair value hedges), hedges of the variability in future cash flows attributable to a recognized asset or liability or highly probable forecast transactions (cash flow hedges) or hedges of a net investment in a foreign operation (net investment hedges).

At the time a financial instrument is designated in a hedge relationship, UBS AG formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction and the methods that will be used to assess the effectiveness of the hedging relationship. Accordingly, UBS AG assesses, both at the inception of the hedge and on an ongoing basis, whether the hedging instruments, primarily derivatives, have been "highly effective" in offsetting changes in the fair value or cash flows associated with the designated risk of the hedged items. A hedge is considered highly effective if the following criteria are met: (i) at inception of the hedge and throughout its life, the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk and (ii) actual results of the hedge are within a range of 80% to 125%. In the case of hedging forecast transactions, the transaction must have a high probability of occurring and must present an exposure to variations in cash flows that could ultimately affect the reported net profit or loss. UBS AG discontinues hedge accounting voluntarily, or when UBS AG determines that a hedging instrument is not, or has ceased to be, highly effective as a hedge, when the derivative expires or is sold, terminated or exercised, when the hedged item matures, is sold or repaid or when forecast transactions are no longer deemed highly probable.

Hedge ineffectiveness represents the amount by which the changes in the fair value of the hedging instrument differ from changes in the fair value of the hedged item attributable to the hedged risk, or the amount by which changes in the present value of future cash flows of the hedging instrument exceed changes in the present value of expected cash flows of the hedged item. Such ineffectiveness is recorded in current period earnings in *Net trading income*. Interest income and expense on derivatives designated as hedging instruments in effective hedge relationships is included in *Interest income*.

#### *Fair value hedges*

For qualifying fair value hedges, the change in the fair value of the hedging instrument is recognized in the income statement along with the change in the fair value of the hedged item that is attributable to the hedged risk. In fair value hedges of interest rate risk, the fair value change of the hedged item attributable to the hedged risk is reflected in the carrying value of the hedged item. If the hedge accounting relationship is terminated for reasons other than the derecognition of the hedged item, the difference between the carrying value of the hedged item at that point and the value at which it would have been carried had the hedge never existed (the unamortized fair value adjustment) is amortized to the income statement over the remaining term to maturity of the hedged item.

**Note 1 Summary of significant accounting policies (continued)**

For a portfolio hedge of interest rate risk, the equivalent change in fair value is reflected within *Other assets* or *Other liabilities*. If the hedge relationship is terminated for reasons other than the derecognition of the hedged item, the amount included in *Other assets* or *Other liabilities* is amortized to the income statement over the remaining term to maturity of the hedged items.

*Cash flow hedges*
Fair value gains or losses associated with the effective portion of derivatives designated as cash flow hedges for cash flow repricing risk are recognized initially in *Other comprehensive income* within *Equity.* When the hedged forecast cash flows affect profit or loss, the associated gains or losses on the hedging derivatives are reclassified from *Equity* to the income statement.

If a cash flow hedge of forecasted transactions is no longer considered effective, or if the hedge relationship is terminated, the cumulative gains or losses on the hedging derivatives previously reported in *Equity* remain there until the committed or forecasted transactions occur and affect profit or loss. If the forecasted transactions are no longer expected to occur, the deferred gains or losses are reclassified immediately to the income statement.

*Hedges of net investments in foreign operations*
Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Gains or losses on the hedging instrument relating to the effective portion of the hedge are recognized directly in *Equity* (and presented in the statement of changes in equity and statement of comprehensive income under *Foreign currency translation*), while any gains or losses relating to the ineffective and / or undesignated portion (for example, the interest element of a forward contract) are recognized in the income statement. Upon disposal or partial disposal of the foreign operation, the cumulative value of any such gains or losses associated with the entity, and recognized directly in *Equity,* is reclassified to the income statement.

*Economic hedges that do not qualify for hedge accounting*
Derivative instruments that are transacted as economic hedges but do not qualify for hedge accounting are treated in the same way as derivative instruments used for trading purposes (i.e., realized and unrealized gains and losses are recognized in *Net trading income*), except for the forward points on certain short duration foreign exchange contracts, which are reported in *Net interest income*.

**➔ Refer to Note 14 for more information on economic hedges**

*Embedded derivatives*
Derivatives may be embedded in other financial instruments (host contracts). For example, they could be represented by the conversion feature embedded in a convertible bond. Such hybrid instruments arise predominantly from the issuance of certain structured debt instruments. An embedded derivative is generally required to be separated from the host contract and accounted for as a standalone derivative instrument at fair value through profit or loss if: (i) the host contract is not carried at fair value with changes in fair value reported in the income statement, (ii) the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract and (iii) the terms of the embedded derivative would meet the definition of a standalone derivative were they contained in a separate contract. Bifurcated embedded derivatives are presented on the same balance sheet line as the host contract, and are shown in Note 27a in the Held for trading category, reflecting the measurement and recognition principles applied.

Typically, UBS AG applies the fair value option to hybrid instruments (refer to item 8 for more information), in which case bifurcation of an embedded derivative component is not required.

16) Loan commitments
Loan commitments are defined amounts (unutilized credit lines or undrawn portions of credit lines) against which clients can borrow money under defined terms and conditions.

Loan commitments that can be cancelled at any time by UBS AG at its discretion, according to their general terms and conditions, are not recognized on the balance sheet and are not included in the off-balance-sheet disclosures. Upon a loan drawdown by the counterparty, the amount of the loan is accounted for in accordance with *Loans and receivables.* Refer to item 10 for more information.

**Note 1 Summary of significant accounting policies (continued)**

Irrevocable loan commitments (where UBS AG has no right to withdraw the loan commitment once communicated to the beneficiary, or which are revocable only due to automatic cancellation upon deterioration in a borrower's creditworthiness) are classified into the following categories:

- derivative loan commitments, being loan commitments that can be settled net in cash or by delivering or issuing another financial instrument, or loan commitments for which there is a past practice of selling those loans resulting from similar loan commitments before or shortly after origination;
- loan commitments designated at fair value through profit and loss (refer to item 8 for more information) and
- all other loan commitments. These are not recorded in the balance sheet, but a provision is recognized if it is probable that a loss has been incurred and a reliable estimate of the amount of the obligation can be made. Other loan commitments include irrevocable forward starting reverse repurchase and irrevocable securities borrowing agreements. Any change in the liability relating to these other loan commitments is recorded in the income statement in *Credit loss expense / recovery*. Refer to items 11 and 27 for more information.

17) Financial guarantee contracts

Financial guarantee contracts are contracts that require the issuer to make specified payments to reimburse the holder for an incurred loss because a specified debtor fails to make payments when due in accordance with the terms of a specified debt instrument. UBS AG issues such financial guarantees to banks, financial institutions and other parties on behalf of clients to secure loans, overdrafts and other banking facilities.

Certain written financial guarantees that are managed on a fair value basis are designated at fair value through profit or loss. Refer to item 8 for more information. Financial guarantees that are not managed on a fair value basis are initially recognized in the financial statements at fair value. Subsequent to initial recognition, these financial guarantees are measured at the higher of the amount initially recognized less cumulative amortization, and to the extent a payment under the guarantee has become probable, the present value of the expected payment. Any change in the liability relating to probable expected payments resulting from guarantees is recorded in the income statement in *Credit loss expense / recovery*.

18) Cash and cash equivalents

For the purposes of the statement of cash flows, cash and cash equivalents comprise balances with an original maturity of three months or less including cash, money market paper and balances with central and other banks.

19) Physical commodities

Physical commodities (precious metals, base metals and other commodities) held by UBS AG as a result of its broker-trader activities are accounted for at fair value less costs to sell and recognized within *Trading portfolio assets*. Changes in fair value less costs to sell are recorded in *Net trading income*.

20) Property, equipment and software

Property, equipment and software includes own-used properties, leasehold improvements, information technology hardware, externally purchased and internally generated software and communication and other similar equipment. All *Property, equipment and software* is carried at cost (which includes capitalized interest from associated borrowings, where applicable), less accumulated depreciation and impairment losses, and is reviewed periodically for impairment.

**➔ Refer to Note 16 for more information on property and equipment**

*Leasehold improvements*

Leasehold improvements are investments made to customize buildings and offices occupied under operating lease contracts to make them suitable for their intended purpose. The present value of estimated reinstatement costs required to bring a leased property back into its original condition at the end of the lease is capitalized as part of total leasehold improvements with a corresponding liability recognized to reflect the obligation incurred.

## Note 1 Summary of significant accounting policies (continued)

Reinstatement costs are recognized in the income statement through depreciation of the capitalized leasehold improvements over their estimated useful lives and the resulting liability is extinguished as cash payments are made.

*Property held for sale*
Where UBS AG has decided to sell non-current assets such as property or equipment and the sale of these assets is highly probable to occur within 12 months, these assets are classified as non-current assets held for sale and are reclassified to *Other assets*. Upon classification as held for sale, they are no longer depreciated and are carried at the lower of book value or fair value less cost to sell.

*Software*
Software development costs are capitalized only when the costs can be measured reliably and it is probable that future economic benefits will arise.

*Estimated useful life of property, equipment and software*
An asset within property, equipment and software is depreciated on a straight-line basis over its estimated useful life. Depreciation of an asset within property, equipment and software begins when it is available for use; that is, when it is in the location and condition necessary for it to be capable of operating in the manner intended by management.

*Estimated useful life of property, equipment and software*

| | |
|---|---|
| Properties, excluding land | Not exceeding 67 years |
| Leasehold improvements | Residual lease term |
| Other machines and equipment | Not exceeding 10 years |
| IT hardware and communication equipment | Not exceeding 5 years |
| Software | Not exceeding 10 years |

### 21) Goodwill and intangible assets

Goodwill represents the excess of the cost of an acquisition over the fair value of UBS AG's share of net identifiable assets of the acquired entity at the date of acquisition. Goodwill is not amortized. It is tested annually for impairment and, additionally, when an indication of impairment exists at the end of each reporting period. For goodwill impairment testing purposes, UBS AG considers the segments reported in Note 2a as separate cash-generating units, since this is the level at which the performance of investments is reviewed and assessed by management. The recoverable amount of a segment is determined on the basis of its value-in-use.

Intangible assets are comprised of separately identifiable intangible items arising from business combinations and certain purchased trademarks and similar items. Intangible assets are recognized at cost. The cost of an intangible asset acquired in a business combination is its fair value at the date of acquisition. Intangible assets with a definite useful life are amortized using the straight-line method over their estimated useful life, generally not exceeding 20 years. Intangible assets with an indefinite useful life are not amortized. In nearly all cases, identified intangible assets have a definite useful life. At each balance sheet date, intangible assets are reviewed for indications of impairment. If such indications exist, the intangible assets are analyzed to assess whether their carrying amount is fully recoverable. An impairment loss is recognized if the carrying amount exceeds the recoverable amount.

Intangible assets are classified into two categories: (i) infrastructure and (ii) customer relationships, contractual rights and other. Infrastructure consists of a branch network intangible asset recognized in connection with the acquisition of PaineWebber Group, Inc. Client relationships, contractual rights and other includes mainly intangible assets for client relationships, non-compete agreements, favorable contracts, trademarks and trade names acquired in business combinations.

➔ **Refer to Note 17 for more information on goodwill and intangible assets**

### 22) Income taxes

Income tax payable on profits is recognized as an expense based on the applicable tax laws in each jurisdiction in the period in which profits arise. The tax effects of income tax losses available for carry forward are recognized as a deferred tax asset if it is probable that future taxable profit (based on profit forecast assumptions) will be available against which those losses can be utilized.

Deferred tax assets are recognized for temporary differences that will result in deductible amounts in future periods, but only to the extent that it is probable that sufficient taxable profits will be available against which these differences can be utilized. Deferred tax liabilities are recognized for temporary differences between the carrying amounts of assets and liabilities in the balance sheet that reflect the expectation that certain items will give rise to taxable income in future periods. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the asset will be realized or the liability will be settled.

Deferred and current tax assets and liabilities are offset when they arise from the same tax reporting group, they relate to the same tax authority, the legal right to offset exists, and they are intended to be settled net or realized simultaneously.

## Note 1 Summary of significant accounting policies (continued)

Current and deferred taxes are recognized as income tax benefit or expense in the income statement except for current and deferred taxes recognized (i) upon the acquisition of a subsidiary, (ii) for unrealized gains or losses on financial investments that are classified as available-for-sale, for changes in fair value of derivative instruments designated as cash flow hedges, for remeasurements of defined benefit plans, and for certain foreign currency translations of foreign operations, and (iii) for gains and losses on the sale of treasury shares. Deferred taxes recognized in a business combination (point (i)) are considered when determining goodwill. Amounts relating to points (ii) and (iii) are recognized in *Other comprehensive income* within *Equity.*

**➔ Refer to Note 8 for more information on income taxes**

### 23) Debt issued

Debt issued is carried at amortized cost. In cases where there is a legal mechanism for write-down or conversion into equity (as is the case for instance with senior unsecured debt issued by UBS AG that is subject to write-down or conversion under resolution authority granted to FINMA under Swiss law) this is not part of the contractual terms, and, therefore, it does not affect the amortized cost accounting treatment applied to these instruments. If the debt were to be written down or converted into equity in a future period, this would result in the full or partial derecognition of the financial liabilities, with the difference between the carrying value of the debt written down or converted into equity and the fair value of any equity shares issued recognized in the income statement.

In cases where, as part of UBS AG's risk management activity, fair value hedge accounting is applied to fixed-rate debt instruments carried at amortized cost, their carrying amount is adjusted for changes in fair value related to the hedged exposure. Refer to item 15 for more information on hedge accounting. In most cases, structured notes issued are designated at fair value through profit or loss using the fair value option, on the basis that they are managed on a fair value basis, that the structured notes contain an embedded derivative, or both. Refer to item 8 for more information on the fair value option. The fair value option is not applied to certain structured notes that contain embedded derivatives that reference foreign exchange rates and/or precious metal prices. For these instruments, the embedded derivative component is measured on a fair value basis and the related underlying debt host component is measured on an amortized cost basis, with both components presented together within *Debt issued*. Refer to item 15 for more information on embedded derivatives.

Debt issued and subsequently repurchased in relation to market-making or other activities is treated as redeemed. A gain or loss on redemption (depending on whether the repurchase price of the bond is lower or higher than its carrying value) is recorded in *Other income*. A subsequent sale of own bonds in the market is treated as a reissuance of debt. Interest expense on debt instruments measured at amortized cost is included in *Interest on debt issued*.

**➔ Refer to Note 21 for more information on debt issued**

### 24) Pension and other post-employment benefit plans

UBS AG sponsors a number of post-employment benefit plans for its employees worldwide, which include defined benefit and defined contribution pension plans, and other post-employment benefits such as medical and life insurance benefits that are payable after the completion of employment. The major defined benefit pension plans are located in Switzerland, the UK, the US and Germany.

**➔ Refer to Note 28 for more information on pension and other post-employment benefit plans**

#### *Defined benefit pension plans*

Defined benefit pension plans specify an amount of benefit that an employee will receive, which is usually dependent on one or more factors such as age, years of service and compensation. The defined benefit liability recognized in the balance sheet is the present value of the defined benefit obligation less the fair value of the plan assets at the balance sheet date. If the fair value of the plan assets is higher than the present value of the defined benefit obligation, the recognition of the resulting net defined benefit asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. UBS AG applies the projected unit credit method to determine the present value of its defined benefit obligations, the related current service cost and, where applicable, past service cost. These amounts, which take into account the specific features of each plan, including risk sharing between the employee and employer, are calculated periodically by independent qualified actuaries.

#### *Defined contribution plans*

A defined contribution plan is a pension plan under which UBS AG pays fixed contributions into a separate entity from which post-employment and other benefits are paid. UBS AG has no legal or constructive obligation to pay further contributions if the plan does not hold sufficient assets to pay employees the benefits relating to employee service in the current and prior periods. UBS AG's contributions are expensed when the employees have rendered services in exchange for such contributions. This is generally in the year of contribution. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

#### *Other post-retirement benefits*

UBS AG also provides post-retirement medical and life insurance benefits to certain retirees in the US and the UK. The expected costs of these benefits are recognized over the period of employment using the same accounting methodology used for defined benefit pension plans.

**Note 1 Summary of significant accounting policies (continued)**

## 25) Equity participation and other compensation plans

*Transfer of deferred compensation plans*

As part of the Group reorganization in 2014, UBS Group AG assumed obligations of UBS AG as grantor in connection with certain outstanding awards under employee share, option, notional fund and deferred cash compensation plans. This section separately describes the accounting policies applied to these plans during the periods prior to and post the Group reorganization and transfer of deferred compensation plans.

*Periods prior to the Group reorganization and transfer of deferred compensation plans*

*Equity participation plans*

UBS AG has established several equity participation plans which include mandatory, discretionary and voluntary plans. UBS AG recognizes the fair value of awards granted under these plans, determined at the date of grant, as compensation expense, over the period during which the employee is required to provide services in order to earn the award.

If the employee is not required to provide future services, such as for awards granted to employees who are retirement eligible, including those employees who meet full career retirement criteria, compensation expense is recognized on or prior to the grant date. Such awards may remain forfeitable until the legal vesting date if certain non-vesting conditions are not met. Forfeiture events resulting from breach of a non-vesting condition do not result in a reversal of compensation expense.

If future service is required, compensation expense is recognized over that future period. For awards that are delivered in tranches, each tranche is considered a separate award and amortized separately. Plans may contain provisions that shorten the required service period due to achievement of retirement eligibility or upon termination due to redundancy. In such instances, compensation expense is recognized over the period from grant date to the retirement eligibility or redundancy date. Forfeiture of these awards that occurs during the service period results in a reversal of compensation expense.

Awards settled in UBS AG shares or options are classified as equity settled. The fair value of an equity-settled award is determined at the date of grant and is not subsequently remeasured, unless its terms are modified such that the fair value immediately after modification exceeds the fair value immediately prior to modification. Any increase in fair value resulting from a modification is recognized as compensation expense, either over the remaining service period or, for vested awards, immediately.

Cash-settled awards are classified as liabilities and are remeasured to fair value at each balance sheet date as long as the award is outstanding. Changes in fair value are reflected in compensation expense and, on a cumulative basis, no compensation expense is recognized for awards that expire worthless or remain unexercised.

**➔ Refer to Note 29 for more information on equity participation plans**

*Other compensation plans*

UBS AG has established other fixed and variable deferred compensation plans, the values of which are not linked to UBS AG's own equity. Deferred cash compensation plans are either mandatory or discretionary plans and include awards based on a notional cash amount, where ultimate payout is fixed or may vary based on achievement of performance conditions or the value of specified underlying assets. Compensation expense is recognized over the period that the employee is required to provide services to earn the award. If the employee is not required to provide future services, such as for awards granted to employees who are retirement eligible, including those employees who meet full career retirement criteria, compensation expense is recognized on or prior to the grant date. The amount recognized during the service period is based on an estimate of the amount expected to be paid out under the plan, such that cumulative expense recognized ultimately equals the cash distributed to employees. For awards in the form of alternative investment vehicles or similar structures, which provide employees with a payout based on the value of specified underlying assets, the initial value is based on the fair value at the grant date of the underlying assets (e.g., money market funds, UBS and non-UBS mutual funds and other UBS-sponsored funds). These awards are remeasured at each reporting date based on the fair value of the underlying assets until the award is distributed. Changes in value are recognized proportionately to the elapsed service period. Forfeiture of these awards results in the reversal of compensation expense.

**➔ Refer to Note 29 for more information on other compensation plans**

*Periods post the Group reorganization and transfer of deferred compensation plans*

*Equity participation plans*

UBS Group AG has established, and maintains the obligation to settle, several equity participation plans which are granted to employees of UBS AG. UBS Group AG's equity participation plans include mandatory, discretionary and voluntary plans. UBS AG recognizes the fair value of awards granted to its employees, determined at the grant date, over the period that the employee is required to provide services in order to earn the award.

## Note 1 Summary of significant accounting policies (continued)

If the employee is not required to provide future services, such as for awards granted to employees who are retirement eligible, including those employees who meet full career retirement criteria, compensation expense is recognized on or prior to the grant date. Such awards may remain forfeitable until the legal vesting date if certain non-vesting conditions are not met. Forfeiture events resulting from breach of a non-vesting condition do not result in a reversal of compensation expense.

If future service is required, compensation expense is recognized over that future period. For awards that are delivered in tranches, each tranche is considered a separate award and amortized separately. Plans may contain provisions that shorten the required service period due to achievement of retirement eligibility or upon termination due to redundancy. In such instances, compensation expense is recognized over the period from grant date to the retirement eligibility or redundancy date. Forfeiture of these awards that occurs during the service period results in a reversal of compensation expense.

UBS AG has no obligation to settle the awards and therefore awards over UBS Group AG shares are classified as equity settled share-based payment transactions. The fair value of an equity-settled award is determined at the date of grant and is not subsequently remeasured, unless its terms are modified such that the fair value immediately after modification exceeds the fair value immediately prior to modification. Any increase in fair value resulting from a modification is recognized as compensation expense, either over the remaining service period or, for vested awards, immediately.

**➔ Refer to Note 29 for more information on equity participation plans**

### *Other compensation plans*

UBS Group AG has established other fixed and variable deferred compensation plans, the values of which are not linked to UBS Group AG's or UBS AG's own equity. Deferred cash compensation plans are either mandatory or discretionary plans and include awards based on a notional cash amount, where ultimate payout is fixed or may vary based on achievement of performance conditions or the value of specified underlying assets. Compensation expense is recognized over the period that the employee is required to provide services to earn the award. If the employee is not required to provide future services, such as for awards granted to employees who are retirement eligible, including those employees who meet full career retirement criteria, compensation expense is recognized on or prior to the grant date. The amount recognized during the service period is based on an estimate of the amount expected to be paid out under the plan, such that cumulative expense recognized ultimately equals the cash distributed to employees. For awards in the form of alternative investment vehicles or similar structures, which provide employees with a payout based on the value of specified underlying assets, the initial value is based on the fair value of the underlying assets (e.g., money market funds, UBS and non-UBS mutual funds and other UBS-sponsored funds). These awards are remeasured at each reporting date based on the fair value of the underlying assets until the award is distributed. Changes in value are recognized proportionately to the elapsed service period. Forfeiture of these awards results in the reversal of compensation expense.

**➔ Refer to Note 29 for more information on other compensation plans**

### 26) Amounts due under unit-linked investment contracts

Financial liabilities from unit-linked investment contracts are presented as *Other liabilities* on the balance sheet. These contracts allow investors to invest in a pool of assets through issued investment units. The unit holders receive all rewards and bear all risks associated with the reference asset pool. The financial liability represents the amounts due to unit holders and is equal to the fair value of the reference asset pool. Assets held under unit-linked investment contracts are presented as *Trading portfolio assets.*

**➔ Refer to Notes 13 and 23 for more information on unit-linked investment contracts**

### 27) Provisions

Provisions are liabilities of uncertain timing or amount, and are recognized when UBS AG has a present obligation as a result of a past event, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made.

The majority of UBS AG's provisions relate to litigation, regulatory and similar matters, restructuring, employee benefits, real estate and loan commitments and guarantees. Provisions that are similar in nature are aggregated to form a class, while the remaining provisions, including those of less significant amounts are presented under *Other provisions*. Provisions are presented separately on the balance sheet and, when they are no longer considered uncertain in timing or amount, are reclassified to *Other liabilities – Other*.

## Note 1 Summary of significant accounting policies (continued)

UBS AG recognizes provisions for litigation, regulatory and similar matters when, in the opinion of management after seeking legal advice, it is more likely than not that UBS AG has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against UBS AG, but are nevertheless expected to be, based on the experience of UBS AG with similar asserted claims.

Restructuring provisions are recognized when a detailed and formal restructuring plan has been approved and a valid expectation has been raised that the restructuring will be carried out, either through commencement of the plan or announcements to affected employees.

Provisions are recognized for lease contracts if the unavoidable costs of a contract exceed the benefits expected to be received under it (onerous lease contracts). For example, this may occur when a significant portion of a leased property is expected to be vacant for an extended period.

Provisions for employee benefits are recognized mainly in respect of service anniversaries and sabbatical leave.

Provisions are recognized at the best estimate of the consideration required to settle the present obligation at the balance sheet date. Such estimates are based on all available information and are revised over time as more information becomes available. If the effect of the time value of money is material, provisions are discounted and measured at the present value of the expenditure expected to settle or discharge the obligation, using a rate that reflects the current market assessments of the time value of money and the risks specific to the obligation.

A provision is not recognized when UBS AG has a present obligation that has arisen from past events but it is not probable that an outflow of resources will be required to settle it, or a sufficiently reliable estimate of the amount of the obligation cannot be made. Instead, a contingent liability is disclosed, unless the likelihood of an outflow of resources is remote. Contingent liabilities are also disclosed for possible obligations that arise from past events whose existence will be confirmed only by uncertain future events not wholly within the control of UBS AG.

**➔ Refer to Note 22 for more information on provisions**

### 28) Equity, treasury shares and contracts on UBS AG shares

*Non-controlling interests and preferred noteholders*

*Net profit* and *Equity* are presented including non-controlling interests and preferred noteholders. *Net profit* is split into *Net profit attributable to UBS AG shareholders, Net profit attributable to non-controlling interests* and *Net profit attributable to preferred noteholders. Equity* is split into *Equity attributable to UBS AG shareholders, Equity attributable to non-controlling interests* and *Equity attributable to preferred noteholders.*

*UBS AG shares held (treasury shares)*

UBS AG shares held by UBS AG are presented in *Equity* as *Treasury shares* at their acquisition cost, which includes transaction costs. Treasury shares are deducted from *Equity* until they are cancelled or reissued. The difference between the proceeds from sales of treasury shares and their weighted average cost (net of tax, if any) is reported as *Share premium*.

*Preferred notes issued to non-consolidated preferred securities entities*

UBS AG issued subordinated notes (that is, the preferred notes) to certain non-consolidated entities that issued preferred securities. UBS AG has fully and unconditionally guaranteed all contractual payments on the preferred securities. UBS AG's obligations under these guarantees are subordinated to the full prior payment of the deposit liabilities of UBS AG and all other liabilities of UBS AG. The preferred notes do not contain a contractual obligation to deliver cash and, therefore, they are classified as equity instruments. They are presented as *Equity attributable to preferred noteholders* on the consolidated balance sheet and statement of changes in equity. Distributions on these preferred notes are presented as *Net profit attributable to preferred noteholders* in the consolidated income statement and statement of comprehensive income.

*Net cash settlement contracts*

Prior to the share-for-share exchange, UBS AG issued contracts on own shares that required net cash settlement, or provided the counterparty or UBS AG with a settlement option which included a choice of settling net in cash. These contracts were classified as held for trading, with changes in fair value reported in the income statement as *Net trading income*.

Following the share-for-share exchange, these contracts continue to be accounted for in the same manner, however, they are no longer classified as contracts on own shares.

## Note 1 Summary of significant accounting policies (continued)

### 29) Non-current assets and disposal groups held for sale

UBS AG classifies individual non-current assets and disposal groups as held for sale if such assets or disposal groups are available for immediate sale in their present condition subject to terms that are usual and customary for sales of such assets or disposal groups and their sale is considered highly probable. For a sale to be highly probable, management must be committed to a plan to sell such assets and must be actively looking for a buyer. Furthermore, the assets must be actively marketed at a reasonable sales price in relation to their fair value and the sale must be expected to be completed within one year. Assets held for sale and disposal groups are measured at the lower of their carrying amount and fair value less costs to sell and are presented in *Other assets* and *Other liabilities*. Non-current assets and liabilities of subsidiaries are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use.

**➔ Refer to Notes 18 and 23 for more information on non-current assets and disposal groups held for sale**

### 30) Leasing

UBS AG enters into lease contracts, or contracts that include lease components, predominantly of premises and equipment, and primarily as lessee. Leases that transfer substantially all the risks and rewards, but not necessarily legal title in the underlying assets, are classified as finance leases. All other leases are classified as operating leases.

Assets leased pursuant to finance leases are recognized on the balance sheet as *Property and equipment* and are depreciated over the lesser of the useful life of the asset or the lease term, with corresponding amounts payable included in *Due to banks/customers*. Finance charges payable are recognized in *Net interest income* over the period of the lease based on the interest rate implicit in the lease on the basis of a constant yield.

Lease contracts classified as operating leases where UBS AG is the lessee are disclosed in Note 33. These contracts include non-cancellable long-term leases of office buildings in most UBS AG locations. Operating lease rentals payable are recognized as an expense on a straight-line basis over the lease term, which commences with control of the physical use of the property. Lease incentives are treated as a reduction of rental expense and are recognized on a consistent basis over the lease term.

Where UBS AG acts as lessor under a finance lease, a receivable is recognized in *Loans* at an amount equal to the present value of the aggregate of the minimum lease payments plus any unguaranteed residual value that UBS AG expects to recover at the end of the lease term. Initial direct costs are also included in the initial measurement of the lease receivable. Lease payments received during the lease term are allocated to repayment of the outstanding receivable and interest income to reflect a constant periodic rate of return on UBS AG's net investment using the interest rate implicit in the lease. UBS AG reviews the estimated unguaranteed residual value annually and if the estimated residual value to be realized is less than the amount assumed at lease inception, a loss is recognized for the expected shortfall.

Certain arrangements do not take the legal form of a lease but convey a right to use an asset in return for a payment or series of payments. For such arrangements, UBS AG determines at the inception of the arrangement whether the fulfillment of the arrangement is dependent on the use of a specific asset or assets and, if so, the arrangement is accounted for as a lease.

**➔ Refer to Note 33 for more information on operating leases and finance leases**

### 31) Fee income

UBS AG earns fee income from a diverse range of services it provides to its clients. Fee income can be divided into two broad categories: fees earned from services that are provided over a certain period of time (for example, investment fund fees, portfolio management and advisory fees) and fees earned from providing transaction-type services (for example, underwriting fees, corporate finance fees and brokerage fees). Fees earned from services that are provided over a certain period of time are recognized ratably over the service period, with the exception of performance-linked fees or fee components with specific performance criteria. Such fees are recognized when the performance criteria are fulfilled and when collectability is reasonably assured. Fees earned from providing transaction-type services are recognized when the service has been completed. Generally, fees are presented in the income statement in line with the balance sheet classification of the underlying instruments.

## Note 1 Summary of significant accounting policies (continued)

With respect to loan commitment fees on lending arrangements where there is an initial expectation that the facility will be drawn down, such fees are deferred until the loan is drawn down and are then recognized as an adjustment to the effective yield over the life of the loan. If the commitment expires and the loan is not drawn down, the fees are recognized as revenue when the commitment expires. Where the initial expectation is that the facility is unlikely to be drawn down, the loan commitment fees are recognized on a straight-line basis over the commitment period. If, in such cases, the facility is ultimately drawn down, the unamortized component of the loan commitment fees is amortized as an adjustment to the effective yield over the life of the loan.

**➔ Refer to Note 4 for more information on net fee and commission income**

### 32) Foreign currency translation

Transactions denominated in foreign currency are translated into the functional currency of the reporting unit at the spot exchange rate on the date of the transaction. At the balance sheet date, all monetary assets and liabilities denominated in foreign currency are translated to the functional currency using the closing exchange rate. Non-monetary items measured at historical cost are translated at the exchange rate on the date of the transaction. Foreign currency translation differences on financial investments classified as available-for-sale are generally recorded directly in *Equity* until the asset is sold or becomes impaired. However, translation differences on available-for-sale monetary financial investments are reported in *Net trading income,* along with all other foreign currency translation differences on monetary assets and liabilities.

Upon consolidation, assets and liabilities of foreign operations are translated into Swiss francs (CHF), UBS AG's presentation currency, at the closing exchange rate on the balance sheet date, and income and expense items are translated at the average rate for the period. The resulting foreign currency translation differences attributable to UBS AG shareholders are recognized directly in *Foreign currency translation* within *Equity* which forms part of *Total equity attributable to UBS AG shareholders,* whereas the foreign currency translation differences attributable to non-controlling interests are shown within *Equity attributable to non-controlling interests.*

When a foreign operation is disposed or partially disposed of, the cumulative amount in *Foreign currency translation* within *Equity* related to that foreign operation is reclassified to the income statement as part of the gain or loss on disposal. When UBS AG disposes of a portion of its interest in a subsidiary that includes a foreign operation but retains control, the related portion of the cumulative currency translation balance is reclassified to *Equity attributable to non-controlling interests.* When UBS AG disposes of a portion of its investment in an associate or joint venture that includes a foreign operation while retaining significant influence or joint control, the related portion of the cumulative currency translation balance is reclassified to the income statement.

**➔ Refer to Note 36 for more information on currency translation rates**

### 33) Earnings per share (EPS)

During 2015, UBS AG shares were delisted from the SIX and the NYSE. As of 31 December 2015, 100% of UBS AG's issued shares were held by UBS Group AG and therefore were not publicly traded. Accordingly, earnings per share information is not provided for UBS AG.

### 34) Segment reporting

UBS AG's businesses are organized globally into five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank, supported by the Corporate Center. The five business divisions qualify as reportable segments for the purpose of segment reporting and, together with the Corporate Center and its components, reflect the management structure of UBS AG. Additionally, the non-core activities and legacy positions formerly in the Investment Bank are managed and reported as a separate reportable segment within the Corporate Center as Non-core and Legacy Portfolio. Financial information about the five business divisions and the Corporate Center (with its components) is presented separately in internal management reports to the Group Executive Board, which is considered the "chief operating decision maker" within the context of IFRS 8 *Operating Segments*.

## Note 1 Summary of significant accounting policies (continued)

UBS AG's internal accounting policies, which include management accounting policies and service level agreements, determine the revenues and expenses directly attributable to each reportable segment. Internal charges and transfer pricing adjustments are reflected in operating results of the reportable segments. Transactions between the reportable segments are carried out at internally agreed rates and are also reflected in the operating results of the reportable segments. Revenue-sharing agreements are used to allocate external client revenues to reportable segments where several reportable segments are involved in the value-creation chain. Commissions are credited to the reportable segments based on the corresponding client relationship. Net interest income is generally allocated to the reportable segments based on their balance sheet positions. Interest income earned from managing UBS AG's consolidated equity is allocated to the reportable segments based on average attributed equity. Own credit gains and losses on financial liabilities designated at fair value are excluded from the measurement of performance of the business divisions, are considered reconciling differences to UBS AG results and are reported collectively under Corporate Center – Group Asset and Liability Management (Group ALM).

Assets and liabilities of the reportable segments are funded through and invested with Corporate Center – Group Asset and Liability Management, and the net interest margin is reflected in the results of each reportable segment. Total intersegment revenues for UBS AG are immaterial as the majority of the revenues are allocated across the segments by means of revenue-sharing agreements.

Segment balance sheet assets are based on a third-party view and do not include intercompany balances. This view is in line with internal reporting to management. Certain assets managed centrally by Corporate Center – Services and Corporate Center – Group Asset and Liability Management (including property and equipment and certain financial assets) may be allocated to the segments on a basis different to that which the corresponding costs and/or revenues are allocated. For example, certain assets that are reported in Corporate Center – Services or Corporate Center – Group Asset and Liability Management may be retained on the balance sheets of these components of Corporate Center notwithstanding that the costs and/or revenues associated with these assets may be entirely or partially allocated to the segments. Similarly, certain assets are reported in the business divisions, whereas the corresponding costs and/or revenues are entirely or partially allocated to Corporate Center – Services and Corporate Center – Group Asset and Liability Management.

For the purpose of segment reporting under IFRS 8, non-current assets consist of investments in associates and joint ventures, goodwill, other intangible assets and property, equipment and software.

➔ **Refer to Note 2 for more information on segment reporting**

### 35) Netting

UBS AG nets financial assets and liabilities on its balance sheet if it has the unconditional and legally enforceable right to set-off the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously. Netted positions include, for example, over-the-counter interest rate swaps transacted with the London Clearing House, netted by currency and across maturity dates, and repurchase and reverse repurchase transactions entered into with both the London Clearing House and the Fixed Income Clearing Corporation, netted by counterparty, currency, central securities depository and maturity, as well as transactions with various other counterparties, exchanges and clearing houses.

In assessing whether UBS AG intends to either settle on a net basis, or to realize the asset and settle the liability simultaneously, emphasis is placed on the effectiveness of operational settlement mechanics in eliminating substantially all credit and liquidity exposure between the counterparties. This condition precludes offsetting on the balance sheet for substantial amounts of UBS AG's financial assets and liabilities, even though they may be subject to enforceable netting arrangements. For derivative contracts, balance sheet offsetting is generally only permitted in circumstances in which a market settlement mechanism exists via an exchange or clearing house that effectively accomplishes net settlement through a daily cash margining process. For repurchase arrangements and securities financings, balance sheet offsetting may be permitted only to the extent that the settlement mechanism eliminates or results in insignificant credit and liquidity risk.

➔ **Refer to Note 26 for more information on offsetting financial assets and financial liabilities**

### 36) Negative interest

Negative interest income arising on a financial asset does not meet the definition of interest income and therefore negative interest on financial assets and negative interest on financial liabilities is presented within *Interest expense* and *Interest income* respectively.

➔ **Refer to Note 3 for more information on interest income and interest expense**

**Note 1 Summary of significant accounting policies (continued)**

## b) Changes in accounting policies, comparability and other adjustments

*Statement of cash flows – definition of cash and cash equivalents*
In 2015, UBS AG refined its definition of cash and cash equivalents presented in the statement of cash flows to exclude cash collateral receivables on derivative instruments with bank counterparties. The refined definition is consistent with the treatment of these receivables in UBS AG's liquidity and funding management framework and with liquidity and funding regulations, which became effective in 2015, and is considered to result in the presentation of more relevant information.

Comparative period information was restated accordingly. As a result, cash and cash equivalents as of 31 December 2014, 31 December 2013 and 31 December 2012 were reduced by CHF 10,265 million, CHF 8,982 million and CHF 12,393 million, respectively. On a restated basis, cash flow from operating activities for the year ended 31 December 2014 decreased by CHF 1,195 million (2013: increase by CHF 3,415 million) and the gain from effects of exchange rate differences on cash and cash equivalents decreased by CHF 89 million for the same period (2013: loss from currency effects increased by CHF 3 million).

*Review of actuarial assumptions used in calculating defined benefit obligations*

UBS AG regularly reviews the actuarial assumptions used in calculating its defined benefit obligations to determine their continuing relevance.

In 2015, UBS AG carried out a methodology review of the actuarial assumptions used in calculating its defined benefit obligation for its Swiss pension plan. As a result, UBS AG enhanced its methodology for estimating the discount rate by improving the construction of the yield curve where the market for long tenor maturities of Swiss high-quality corporate bonds was not sufficiently deep. Furthermore, UBS AG refined its approach to estimating the rate of salary increases, the rate of interest credit on retirement savings, the employee turnover rate, the rate of employee disabilities and the rate of marriage. These improvements in estimates resulted in a total net decrease in the defined benefit obligation (DBO) of the Swiss pension plan of CHF 2.1 billion, of which CHF 1.0 billion related to demographic assumptions and CHF 1.0 billion related to financial assumptions, and a corresponding increase in *Other comprehensive income*.

Furthermore, UBS AG enhanced methodologies and refined approaches used to estimate various actuarial assumptions for its UK and other pension plans. These improvements in estimates resulted in a total net decrease in the DBO of the UK pension plan of CHF 0.2 billion, of which CHF 0.1 billion related to demographic assumptions and CHF 0.1 billion related to financial assumptions, and a corresponding increase in *Other comprehensive income*.

*Valuation methodology for the own credit component of financial liabilities designated at fair value*
In 2015, UBS AG made enhancements to its valuation methodology for the own credit component of fair value of financial liabilities designated at fair value. Prior to the fourth quarter of 2015, own credit was estimated using a funds transfer pricing curve (FTP), which was derived by discounting UBS Group AG (consolidated) new issuance senior debt curve spreads, with the discount primarily reflecting the differences between the spreads in the senior unsecured debt market for UBS Group AG (consolidated) debt and the levels at which UBS Group AG (consolidated) medium-term notes (MTN) were issued. A decline in long-dated UBS Group AG (consolidated) MTN issuance volumes, following UBS Group AG's (consolidated) business transformation, resulted in a reduction in the observable market data available to benchmark the FTP. From the fourth quarter of 2015 onwards, own credit is estimated using an own credit adjustment curve (OCA), which incorporates more observable market data, including market-observed secondary prices for UBS Group AG (consolidated) senior debt, UBS Group AG (consolidated) credit default swap (CDS) spreads and senior debt curves of peers. This change in accounting estimate was finalized in the fourth quarter of 2015, following a multi-period implementation project to develop an enhanced fair value approach supported by related infrastructure enhancements. The change was implemented on a prospective basis in the fourth quarter of 2015 and resulted in a gain of CHF 260 million on a total carrying amount of CHF 63 billion in financial liabilities designated at fair value.

### Note 1 Summary of significant accounting policies (continued)

Additionally, UBS AG will early adopt the own credit presentation requirements of IFRS 9 in the first quarter of 2016. No restatement of prior periods is required. Under IFRS 9, changes in the fair value of financial liabilities designated at fair value through profit and loss related to own credit will be recognized in Other comprehensive income and will not be reclassified to the income statement. UBS AG will adopt the other requirements of IFRS 9 (classification and measurement, impairment and hedge accounting) as of the mandatory effective date in 2018.

*Global Asset Management renamed Asset Management*
During 2015, the business division Global Asset Management was renamed Asset Management. This change is reflected throughout this report.

*Retail & Corporate renamed Personal & Corporate Banking*
Effective 2016, the business division Retail & Corporate has been renamed Personal & Corporate Banking. This change is reflected throughout this report.

*New structure of the Corporate Center*
As of 1 January 2015, Corporate Center – Core Functions was reorganized into two new units, Corporate Center – Services and Corporate Center – Group Asset and Liability Management (Group ALM). Therefore, UBS AG now reports: (i) Corporate Center – Services, (ii) Corporate Center – Group ALM and (iii) Corporate Center – Non-Core and Legacy Portfolio separately, which enhances the transparency on Corporate Center activities.

Group ALM is responsible for centrally managing UBS AG's liquidity and funding position, as well as providing other balance sheet and capital management services to UBS AG. Most of the income generated and expenses incurred by Group ALM from these activities continues to be allocated to the business divisions and other Corporate Center units. Additional transparency on revenue allocations from Group ALM to business divisions and other Corporate Center units is provided in Note 2. Own credit gains and losses on financial liabilities designated at fair value are presented in Group ALM.

Corporate Center – Services includes UBS AG's central control functions and all logistics and support functions serving the business divisions and other Corporate Center units. Most of the expenses of Corporate Center – Services are allocated to the business divisions and other Corporate Center units.

➔ **Refer to Note 2 for more information**

*Service and personnel allocations from Corporate Center – Services to business divisions and other Corporate Center units*
In 2015, UBS AG revised the presentation of service allocations from Corporate Center – Services to the business divisions and other Corporate Center units to better reflect the economic relation-ship between them. These cost allocations were previously presented within the *Personnel expenses, General and administrative expenses* and *Depreciation and impairment of property, equipment and software* line items and are newly presented in the *Services (to)/from business divisions and Corporate Center* line items. Prior-period information was restated to reflect this change. This change in presentation did not affect total operating expenses or performance before tax of the business divisions and Corporate Center units for any period presented. Similarly, personnel of Corporate Center – Services are no longer allocated to the business divisions and other Corporate Center units. Prior-period information was restated accordingly.

➔ **Refer to Note 2 for more information**

*Change in segment reporting related to fair value gains and losses on certain internal funding transactions*
Consistent with changes in the manner in which operating segment performance is assessed, beginning in 2015, UBS AG has applied fair value accounting for certain internal funding transactions between Corporate Center – Group ALM and the Investment Bank and Corporate Center – Non-core and Legacy Portfolio rather than applying amortized cost accounting. This treatment better aligns with the mark-to-market basis on which these internal transactions are risk managed within the Investment Bank and Corporate Center – Non-core and Legacy Portfolio. The terms of the funding transactions remain otherwise unchanged. Prior periods have been restated to reflect this change. As a result, Investment Bank operating income and performance before tax decreased by CHF 37 million for the year ended 31 December 2014 and by CHF 162 million for the year ended 31 December 2013, with offsetting increases in Corporate Center. This change did not affect UBS AG's total operating income or net profit for any period presented.

➔ **Refer to Note 2 for more information**

**Note 1 Summary of significant accounting policies (continued)**

## c) International Financial Reporting Standards and Interpretations to be adopted in 2016 and later and other adjustments

*IFRS 9, Financial Instruments*

In July 2014, the IASB published the final version of IFRS 9, *Financial Instruments*. The standard reflects the classification and measurement, impairment and hedge accounting phases of the IASB's project to replace IAS 39, *Financial Instruments: Recognition and Measurement*.

The standard requires all financial assets, except equity instruments, to be classified at fair value through profit or loss, fair value through other comprehensive income (OCI) or amortized cost on the basis of the entity's business model for managing the financial assets and the contractual cash flow characteristics of the financial asset. If a financial asset meets the criteria to be measured at amortized cost or at fair value through OCI, it can be designated at fair value through profit or loss under the fair value option if doing so would significantly reduce or eliminate an accounting mismatch. Equity instruments that are not held for trading may be accounted for at fair value through OCI, with no subsequent reclassification of realized gains or losses to the income statement, while all other equity instruments will be accounted for at fair value through profit or loss.

The accounting guidance for financial liabilities is unchanged with one exception: any gain or loss arising out of a financial liability designated at fair value through profit or loss that is attributable to changes in the credit risk of that liability (own credit) is presented in OCI and not recognized in the income statement. There is no subsequent reclassification of realized gains or losses on own credit from OCI to the income statement.

In addition, the standard introduces a forward-looking expected credit loss impairment model, replacing the incurred loss model of IAS 39. IFRS 9 also incorporates a reformed approach to hedge accounting that introduces substantial changes to hedge effectiveness and eligibility requirements as well as new disclosures. The standard does not explicitly address macro hedge accounting strategies.

The mandatory effective date of the new standard is 1 January 2018, with earlier adoption permitted. Adoption of the IFRS 9 hedge accounting requirements is optional, pending the completion by the IASB of its project on macro hedge accounting strategies.

UBS AG will adopt the own credit presentation changes in the first quarter of 2016 and is currently assessing the impact of the other requirements of IFRS 9 on its financial statements.

*IFRS 15, Revenue from Contracts with Customers*

In May 2014, the IASB issued IFRS 15, *Revenue from Contracts with Customers*, which establishes principles for revenue recognition that apply to all contracts with customers. The standard requires an entity to recognize revenue as goods or services are transferred to the customer in an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. It also establishes a cohesive set of disclosure requirements regarding information about the nature, amount, timing and uncertainty of revenue and cash flows from contracts with customers. The standard is effective for UBS AG reporting periods beginning on 1 January 2018, with early adoption permitted. Entities can choose to apply the standard retrospectively or use a modified approach in the year of adoption. UBS AG is currently assessing the impact of the new standard on its financial statements.

*IFRS 16, Leases*

In January 2016, the IASB issued IFRS 16, *Leases*. The standard substantially changes the accounting by lessees as operating leases previously accounted for as off-balance sheet financing arrangements will be recognized as on-balance sheet liabilities with a corresponding right of use asset also being recorded. The standard replaces IAS 17, *Leases* and is effective for UBS AG from 1 January 2019. Early application is permitted for companies that also apply IFRS 15, *Revenue from Contracts with Customers*. UBS AG is currently assessing the impact of the new standard on its financial statements. UBS AG's undiscounted minimum lease payments for operating leases are disclosed in Note 33.

**Note 1 Summary of significant accounting policies (continued)**

*Amendments to IFRS 11, Joint Arrangements; IAS 16, Property, Plant and Equipment and IAS 38, Intangible Assets*

In May 2014, the IASB issued amendments to IFRS 11, *Joint Arrangements*, IAS 16, *Property, Plant and Equipment* and IAS 38, *Intangible Assets*. The standard is effective for UBS AG reporting periods beginning on 1 January 2016. The amendments will have no material impact on UBS AG's financial statements. UBS AG's joint arrangements are immaterial, both individually and in aggregate (refer to Note 30), and UBS AG does not use revenue-based depreciation methodologies, which the amendments to IAS 16 and IAS 38 prohibit.

*Annual Improvements to IFRSs 2012 – 2014 Cycle*

In September 2014, the IASB issued *Annual Improvements to IFRSs 2012 – 2014 Cycle* that resulted in amendments to four IFRSs (IFRS 5, *Non-current asset held for sale and discontinued operations*, IFRS 7, *Financial Instruments Disclosures*, IAS 19, *Employee Benefits* and IAS 34, *Interim Financial Reporting)*. Generally, the amendments are effective for UBS AG on 1 January 2016. UBS AG expects that the adoption of these amendments will not have a material impact on its financial statements.

*Amendments to IAS 1, Presentation of Financial Statements*

In December 2014, the IASB issued amendments to IAS 1 to further encourage companies to apply professional judgment in determining what information to disclose in their financial statements and in determining where and in what order information is presented in the financial disclosures. The amendments have a mandatory effective date of 1 January 2016 for UBS AG. The adoption of these amendments will not have a material impact on the financial statements.

*Amendments to IAS 12, Income Taxes:*

In January 2016, the IASB issued narrow scope amendments to IAS 12*, Income Taxes,* clarifying how to account for deferred tax assets related to debt instruments measured at fair value. Entities are required to apply the amendments for annual periods beginning on or after 1 January 2017. UBS AG expects that the adoption of these amendments will not have a material impact on its financial statements.

*Amendments to IAS 7, Statement of Cash Flows*

In January 2016, the IASB issued amendments to IAS 7, *Statement of Cash Flows,* which inter-alia requires companies to provide information about changes in their financial liabilities arising from financing activities, including changes from cash flows and non-cash changes (such as foreign exchange gains or losses). Entities are required to apply the amendments for annual periods beginning on or after 1 January 2017.

## Note 2a Segment reporting

The operational structure of UBS AG is comprised of the Corporate Center and five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank.

### Wealth Management

Wealth Management provides comprehensive financial services to wealthy private clients around the world, with the exception of those served by Wealth Management Americas. UBS AG is a global firm with global capabilities, and its clients benefit from a full spectrum of resources, including wealth planning, investment management solutions and corporate finance advice, banking and lending solutions as well as a wide range of specific offerings. Wealth Management's guided architecture model gives clients access to a wide range of products from the world's leading third-party institutions that complement its own products.

### Wealth Management Americas

Wealth Management Americas is one of the leading wealth managers in the Americas in terms of financial advisor productivity and invested assets. Its business includes UBS AG's domestic US and Canadian wealth management businesses, as well as international business booked in the US. It provides a fully integrated set of wealth management solutions designed to address the needs of ultra high net worth and high net worth clients.

### Personal & Corporate Banking

Personal & Corporate Banking provides comprehensive financial products and services to UBS AG's private, corporate and institutional clients in Switzerland, maintaining a leading position in these segments and embedding its offering in a multi-channel approach. The business is a central element of UBS AG's universal bank delivery model in Switzerland, supporting other business divisions by referring clients and growing the wealth of the firm's private clients so they can be transferred to Wealth Management. Personal & Corporate Banking leverages the cross-selling potential of UBS AG's asset-gathering and investment bank businesses, and manages a substantial part of UBS AG's Swiss infrastructure and banking products platform.

### Asset Management

Asset Management is a large-scale global asset manager. It offers investment capabilities and investment styles across all major traditional and alternative asset classes to institutions, wholesale intermediaries and wealth management clients around the world.

### Investment Bank

The Investment Bank provides corporate, institutional and wealth management clients with expert advice, innovative solutions, execution and comprehensive access to international capital markets. It offers advisory services and provides in-depth cross-asset research, along with access to equities, foreign exchange, precious metals and selected rates and credit markets, through its business units, Corporate Client Solutions and Investor Client Services. The Investment Bank is an active participant in capital markets flow activities, including sales, trading and market-making across a range of securities.

### Corporate Center

Corporate Center is comprised of Services, Group Asset and Liability Management (Group ALM) and Non-core and Legacy Portfolio. Services includes UBS AG's control functions such as finance, risk control (including compliance) and legal. In addition, it provides all logistics and support services, including operations, information technology, human resources, regulatory relations and strategic initiatives, communications and branding, corporate services, physical security, information security as well as outsourcing, nearshoring and offshoring. Group ALM is responsible for centrally managing UBS AG's liquidity and funding position, as well as providing other central internal balance sheet and capital management services. Non-core and Legacy Portfolio is comprised of the non-core businesses and legacy positions that were part of the Investment Bank prior to its restructuring.

## Note 2a Segment reporting (continued)

| CHF million | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center – Services | Corporate Center – Group ALM | Corporate Center – Non-core and Legacy Portfolio | UBS |
|---|---|---|---|---|---|---|---|---|---|
| **For the year ended 31 December 2015** | | | | | | | | | |
| Net interest income | 1,825 | 1,067 | 1,890 | (34) | 1,573 | (337) | 789 | (44) | 6,729 |
| Non-interest income | 5,859 | 6,213 | 1,603 | 2,077 | 7,525 | 434 | 361 | (79) | 23,993 |
| Allocations from Corporate Center – Group ALM to business divisions and other CC units | 471 | 104 | 421 | 15 | (211) | 145 | (876) | (71) | 0 |
| Income[1,2] | 8,155 | 7,384 | 3,913 | 2,057 | 8,889 | 243 | 275 | (195) | 30,721 |
| Credit loss (expense) / recovery | 0 | (4) | (37) | 0 | (68) | 0 | 0 | (8) | (117) |
| Total operating income | 8,155 | 7,381 | 3,876 | 2,057 | 8,821 | 243 | 275 | (203) | 30,605 |
| Personnel expenses | 2,532 | 4,579 | 873 | 729 | 3,220 | 3,875 | 30 | 116 | 15,954 |
| General and administrative expenses | 650 | 848 | 264 | 233 | 882 | 4,517 | 20 | 805 | 8,219 |
| Services (to) / from other business divisions and Corporate Center | 2,289 | 1,209 | 1,077 | 502 | 2,816 | (8,214) | (56) | 378 | 0 |
| *of which: services from CC – Services* | *2,209* | *1,193* | *1,180* | *523* | *2,730* | *(8,243)* | *95* | *314* | *0* |
| Depreciation and impairment of property, equipment and software | 5 | 3 | 17 | 2 | 26 | 866 | 0 | 0 | 918 |
| Amortization and impairment of intangible assets[3] | 3 | 51 | 0 | 8 | 24 | 21 | 0 | 0 | 107 |
| Total operating expenses[4] | 5,478 | 6,689 | 2,231 | 1,475 | 6,969 | 1,065 | (6) | 1,298 | 25,198 |
| **Operating profit / (loss) before tax** | **2,676** | **692** | **1,646** | **583** | **1,852** | **(822)** | **281** | **(1,501)** | **5,407** |
| Tax expense / (benefit) | | | | | | | | | (908) |
| **Net profit / (loss)** | | | | | | | | | **6,314** |
| **Additional Information** | | | | | | | | | |
| Total assets | 119,850 | 60,993 | 141,174 | 12,874 | 253,571 | 22,866 | 237,560 | 94,369 | 943,256 |
| Additions to non-current assets | 6 | 4 | 14 | 1 | 18 | 1,844 | 0 | 1 | 1,888 |

1 Impairments of financial investments available-for-sale for the year ended 31 December 2015 totaled CHF 1 million, of which CHF 1 million was incurred in Wealth Management. 2 Refer to Note 24 for more information on own credit in Corporate Center – Group ALM. 3 Refer to Note 17 for more information. 4 Refer to Note 32 for information on restructuring expenses.

## Note 2a Segment reporting (continued)[1]

| CHF million | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center | | | UBS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Services | Group ALM | Non-core and Legacy Portfolio | |
| **For the year ended 31 December 2014** | | | | | | | | | |
| Net interest income | 1,693 | 864 | 1,801 | (39) | 1,583 | (338) | 816 | 174 | 6,555 |
| Non-interest income | 5,726 | 6,004 | 1,575 | 1,914 | 6,823 | 157 | 307 | (956) | 21,549 |
| Allocations from Corporate Center – Group ALM to business divisions and other CC units | 481 | 116 | 461 | 27 | (100) | 217 | (1,120) | (82) | 0 |
| Income[2,3] | 7,902 | 6,984 | 3,836 | 1,902 | 8,306 | 35 | 2 | (863) | 28,104 |
| Credit loss (expense) / recovery | (1) | 15 | (95) | 0 | 2 | 0 | 0 | 2 | (78) |
| Total operating income | 7,901 | 6,998 | 3,741 | 1,902 | 8,308 | 35 | 2 | (862) | 28,026 |
| Personnel expenses | 2,467 | 4,363 | 850 | 643 | 2,964 | 3,843 | 26 | 124 | 15,280 |
| General and administrative expenses | 918 | 550 | 293 | 305 | 2,671 | 4,113 | 21 | 507 | 9,377 |
| Services (to) / from other business divisions and Corporate Center | 2,180 | 1,137 | 1,074 | 478 | 2,711 | (8,046) | (47) | 513 | 0 |
| *of which: services from CC – Services* | *2,122* | *1,121* | *1,196* | *495* | *2,658* | *(8,084)* | *82* | *411* | *0* |
| Depreciation and impairment of property, equipment and software | 4 | 0 | 17 | 2 | 32 | 762 | 0 | 0 | 817 |
| Amortization and impairment of intangible assets[4] | 5 | 48 | 0 | 9 | 15 | 6 | 0 | 0 | 83 |
| Total operating expenses[5] | 5,574 | 6,099 | 2,235 | 1,435 | 8,392 | 679 | 0 | 1,144 | 25,557 |
| **Operating profit / (loss) before tax** | **2,326** | **900** | **1,506** | **467** | **(84)** | **(643)** | **2** | **(2,005)** | **2,469** |
| Tax expense / (benefit) | | | | | | | | | (1,180) |
| **Net profit / (loss)** | | | | | | | | | **3,649** |
| **Additional Information** | | | | | | | | | |
| Total assets | 127,588 | 56,026 | 143,711 | 15,207 | 292,347 | 19,720 | 237,901 | 169,826 | 1,062,327 |
| Additions to non-current assets | 7 | 6 | 9 | 2 | 7 | 1,677 | 0 | 0 | 1,708 |

1 Figures in this table may differ from those originally published in quarterly and annual reports due to adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period. Refer to Note 1b for more information. 2 Impairments of financial investments available-for-sale for the year ended 31 December 2014 totaled CHF 76 million, of which CHF 49 million were incurred in the Investment Bank and CHF 23 million were incurred in Corporate Center – Non-core and Legacy Portfolio. 3 Refer to Note 24 for more information on own credit in Corporate Center – Group ALM. 4 Refer to Note 17 for more information. 5 Refer to Note 32 for information on restructuring expenses.

## Note 2a Segment reporting (continued)[1]

| CHF million | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center – Services | Corporate Center – Group ALM | Corporate Center – Non-core and Legacy Portfolio | UBS |
|---|---|---|---|---|---|---|---|---|---|
| **For the year ended 31 December 2013** | | | | | | | | | |
| Net interest income | 1,568 | 742 | 1,822 | (44) | 1,102 | (388) | 624 | 359 | 5,786 |
| Non-interest income | 5,519 | 5,629 | 1,556 | 1,954 | 7,552 | 347 | (544) | (18) | 21,997 |
| Allocations from Corporate Center – Group ALM to business divisions and other CC units | 486 | 193 | 396 | 23 | (217) | 218 | (921) | (179) | 0 |
| Income[2,3] | 7,573 | 6,565 | 3,774 | 1,935 | 8,436 | 178 | (841) | 163 | 27,782 |
| Credit loss (expense) / recovery | (10) | (27) | (18) | 0 | 2 | 0 | 0 | 3 | (50) |
| Total operating income | 7,563 | 6,538 | 3,756 | 1,935 | 8,438 | 178 | (841) | 166 | 27,732 |
| Personnel expenses | 2,433 | 4,102 | 843 | 609 | 2,899 | 4,065 | 26 | 205 | 15,182 |
| General and administrative expenses | 708 | 383 | 297 | 218 | 843 | 4,249 | 14 | 1,668 | 8,380 |
| Services (to) / from other business divisions and Corporate Center | 2,165 | 1,145 | 1,140 | 521 | 2,517 | (8,276) | 3 | 785 | 0 |
| *of which: services from CC – Services* | *2,074* | *1,127* | *1,301* | *535* | *2,487* | *(8,304)* | *87* | *693* | *0* |
| Depreciation and impairment of property, equipment and software | 3 | 0 | 19 | 4 | 28 | 761 | 0 | 0 | 816 |
| Amortization and impairment of intangible assets[4] | 7 | 49 | 0 | 8 | 13 | 4 | 0 | 2 | 83 |
| Total operating expenses[5] | 5,316 | 5,680 | 2,298 | 1,359 | 6,300 | 804 | 43 | 2,660 | 24,461 |
| **Operating profit / (loss) before tax** | **2,247** | **858** | **1,458** | **576** | **2,138** | **(626)** | **(884)** | **(2,494)** | **3,272** |
| Tax expense / (benefit) | | | | | | | | | (110) |
| **Net profit / (loss)** | | | | | | | | | **3,381** |
| **Additional Information** | | | | | | | | | |
| Total assets | 109,758 | 45,491 | 141,369 | 14,223 | 239,971 | 17,203 | 230,204 | 215,135 | 1,013,355 |
| Additions to non-current assets | 5 | 1 | 17 | 1 | 81 | 1,236 | 0 | 0 | 1,341 |

1 Figures in this table may differ from those originally published in quarterly and annual reports due to adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period. Refer to Note 1b for more information. 2 Impairments of financial investments available-for-sale for the year ended 31 December 2013 totaled CHF 41 million, of which CHF 10 million was incurred in Wealth Management, CHF 20 million was incurred in the Investment Bank and CHF 8 million was incurred in Corporate Center – Non-core and Legacy Portfolio. 3 Refer to Note 24 for more information on own credit in Corporate Center – Group ALM. 4 Refer to Note 17 for more information. 5 Refer to Note 32 for information on restructuring expenses.

## Note 2b Segment reporting by geographic location

The operating regions shown in the table below correspond to the regional management structure of UBS AG. The allocation of operating income to these regions reflects, and is consistent with, the basis on which the business is managed and its performance evaluated. These allocations involve assumptions and judgments that management considers to be reasonable, and may be refined to reflect changes in estimates or management structure. The main principles of the allocation methodology are that client revenues are attributed to the domicile of the client and trading and portfolio management revenues are attributed to the country where the risk is managed. This revenue attribution is consistent with the mandate of the country and regional Presidents. Certain revenues, such as those related to Corporate Center – Non-core and Legacy Portfolio, are managed at a global level. These revenues are included in the *Global* line.

The geographic analysis of non-current assets is based on the location of the entity in which the assets are recorded.

**For the year ended 31 December 2015**

| | Total operating income | | Total non-current assets | |
|---|---|---|---|---|
| | CHF billion | Share % | CHF billion | Share % |
| Americas | 11.3 | 37 | 7.1 | 47 |
| *of which: USA* | *10.7* | *35* | *6.7* | *44* |
| Asia Pacific | 5.0 | 16 | 0.5 | 3 |
| Europe, Middle East and Africa | 6.8 | 22 | 1.7 | 11 |
| Switzerland | 7.1 | 23 | 5.9 | 39 |
| Global | 0.5 | 2 | 0.0 | 0 |
| **Total** | **30.6** | **100** | **15.2** | **100** |

**For the year ended 31 December 2014**

| | Total operating income | | Total non-current assets | |
|---|---|---|---|---|
| | CHF billion | Share % | CHF billion | Share % |
| Americas | 10.7 | 38 | 7.0 | 48 |
| *of which: USA* | *10.1* | *36* | *6.6* | *45* |
| Asia Pacific | 4.6 | 16 | 0.4 | 3 |
| Europe, Middle East and Africa | 6.8 | 24 | 1.5 | 10 |
| Switzerland | 6.8 | 24 | 5.6 | 38 |
| Global | (0.9) | (3) | 0.0 | 0 |
| **Total** | **28.0** | **100** | **14.6** | **100** |

**For the year ended 31 December 2013**

| | Total operating income | | Total non-current assets | |
|---|---|---|---|---|
| | CHF billion | Share % | CHF billion | Share % |
| Americas | 10.2 | 37 | 6.1 | 46 |
| *of which: USA* | *9.6* | *35* | *5.6* | *43* |
| Asia Pacific | 4.5 | 16 | 0.4 | 3 |
| Europe, Middle East and Africa | 6.6 | 24 | 1.5 | 11 |
| Switzerland | 6.8 | 25 | 5.3 | 40 |
| Global | (0.4) | (1) | 0.0 | 0 |
| **Total** | **27.7** | **100** | **13.1** | **100** |

# Income statement notes

## Note 3 Net interest and trading income

| | For the year ended | | | % change from |
|---|---|---|---|---|
| CHF million | 31.12.15 | 31.12.14 | 31.12.13 | 31.12.14 |
| **Net interest and trading income** | | | | |
| Net interest income | 6,729 | 6,555 | 5,786 | 3 |
| Net trading income | 5,696 | 3,841 | 5,130 | 48 |
| **Total net interest and trading income** | 12,425 | 10,396 | 10,915 | 20 |
| Wealth Management | 3,034 | 2,845 | 2,868 | 7 |
| Wealth Management Americas | 1,537 | 1,352 | 1,323 | 14 |
| Personal & Corporate Banking | 2,613 | 2,536 | 2,485 | 3 |
| Asset Management | (5) | 0 | 9 | |
| Investment Bank | 5,186 | 4,517 | 4,852 | 15 |
| *of which: Corporate Client Solutions* | *1,001* | *1,030* | *1,146* | *(3)* |
| *of which: Investor Client Services* | *4,185* | *3,487* | *3,707* | *20* |
| Corporate Center | 61 | (855) | (622) | |
| *of which: Services* | *(1)* | *33* | *(166)* | |
| *of which: Group ALM* | *375* | *16* | *(535)* | |
| *of which: own credit on financial liabilities designated at fair value*[1] | *553* | *292* | *(283)* | *89* |
| *of which: Non-core and Legacy Portfolio* | *(313)* | *(904)* | *79* | *(65)* |
| **Total net interest and trading income** | 12,425 | 10,396 | 10,915 | 20 |
| **Net interest income** | | | | |
| **Interest income** | | | | |
| Interest earned on loans and advances[2] | 8,626 | 8,722 | 8,686 | (1) |
| Interest earned on securities financing transactions[3] | 896 | 752 | 852 | 19 |
| Interest and dividend income from trading portfolio | 3,071 | 3,196 | 2,913 | (4) |
| Interest income on financial assets designated at fair value | 194 | 208 | 364 | (7) |
| Interest and dividend income from financial investments available-for-sale | 391 | 315 | 322 | 24 |
| **Total** | 13,178 | 13,194 | 13,137 | 0 |
| **Interest expense** | | | | |
| Interest on amounts due to banks and customers | 774 | 708 | 893 | 9 |
| Interest on securities financing transactions[4] | 976 | 827 | 829 | 18 |
| Interest expense from trading portfolio[5] | 1,670 | 1,804 | 1,846 | (7) |
| Interest on financial liabilities designated at fair value | 730 | 919 | 1,197 | (21) |
| Interest on debt issued | 2,299 | 2,382 | 2,586 | (3) |
| **Total** | 6,449 | 6,639 | 7,351 | (3) |
| **Net interest income** | 6,729 | 6,555 | 5,786 | 3 |
| **Net trading income** | | | | |
| Investment Bank Corporate Client Solutions | 321 | 276 | 425 | 16 |
| Investment Bank Investor Client Services | 3,494 | 2,760 | 3,541 | 27 |
| Other business divisions and Corporate Center | 1,882 | 806 | 1,164 | 133 |
| **Net trading income** | 5,696 | 3,841 | 5,130 | 48 |
| *of which: net gains / (losses) from financial assets designated at fair value* | *(119)* | *(81)* | *99* | *47* |
| *of which: net gains / (losses) from financial liabilities designated at fair value*[1,6] | *3,701* | *(2,380)* | *(2,056)* | |

1 Refer to Note 24 for more information on own credit. 2 Includes interest income on impaired loans and advances of CHF 16 million for 2015, CHF 15 million for 2014 and CHF 15 million for 2013. 3 Includes interest income on securities borrowed and reverse repurchase agreements and negative interest, including fees, on securities lent and repurchase agreements. 4 Includes interest expense on securities lent and repurchase agreements and negative interest, including fees, on securities borrowed and reverse repurchase agreements. 5 Includes expense related to dividend payment obligations on trading liabilities. 6 Excludes fair value changes of hedges related to financial liabilities designated at fair value and foreign currency translation effects arising from translating foreign currency transactions into the respective functional currency, both of which are reported within net trading income.

## Note 4 Net fee and commission income

| | For the year ended | | | % change from |
|---|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 | 31.12.14 |
| Underwriting fees | **1,290** | 1,470 | 1,374 | (12) |
| *of which: equity underwriting fees* | ***836*** | *947* | *850* | *(12)* |
| *of which: debt underwriting fees* | ***455*** | *522* | *524* | *(13)* |
| M&A and corporate finance fees | **737** | 731 | 613 | 1 |
| Brokerage fees | **3,930** | 3,918 | 4,035 | 0 |
| Investment fund fees | **3,567** | 3,717 | 3,803 | (4) |
| Portfolio management and advisory fees | **7,858** | 7,343 | 6,625 | 7 |
| Other | **1,678** | 1,760 | 1,725 | (5) |
| **Total fee and commission income** | **19,060** | 18,940 | 18,176 | 1 |
| Brokerage fees paid | **869** | 818 | 839 | 6 |
| Other | **1,007** | 1,045 | 1,050 | (4) |
| **Total fee and commission expense** | **1,876** | 1,863 | 1,889 | 1 |
| **Net fee and commission income** | **17,184** | 17,076 | 16,287 | 1 |
| *of which: net brokerage fees* | ***3,060*** | *3,100* | *3,196* | *(1)* |

## Note 5 Other income

| | For the year ended | | | % change from |
|---|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 | 31.12.14 |
| **Associates and subsidiaries** | | | | |
| Net gains / (losses) from disposals of subsidiaries[1] | **264**[2] | 56 | 111 | 371 |
| Net gains / (losses) from disposals of investments in associates | **0** | 69 | 0 | (100) |
| Share of net profits of associates | **169** | 94 | 49 | 80 |
| **Total** | **433** | 219 | 160 | 98 |
| **Financial investments available-for-sale** | | | | |
| Net gains / (losses) from disposals | **252** | 219 | 209 | 15 |
| Impairment charges | **(1)** | (76) | (41) | (99) |
| **Total** | **251** | 143 | 168 | 76 |
| Net income from properties (excluding net gains / (losses) from disposals)[3] | **28** | 30 | 35 | (7) |
| Net gains / (losses) from investment properties[4] | **(1)** | 2 | (16) | |
| Net gains / (losses) from disposals of properties held for sale | **378** | 44 | 291 | 759 |
| Net gains / (losses) from disposals of loans and receivables | **26** | 39 | 53 | (33) |
| Other | **(4)**[5] | 155 | (111) | |
| **Total other income** | **1,112** | 632 | 580 | 76 |

1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to disposed or dormant subsidiaries. 2 Includes a net gain on sale of subsidiaries of CHF 113 million in Wealth Management and a net gain on sale of subsidiaries of CHF 56 million in Asset Management. Refer to Note 32 for more information. 3 Includes net rent received from third parties and net operating expenses. 4 Includes unrealized and realized gains / (losses) from investment properties and foreclosed assets. 5 Includes a net gain on sale of businesses of CHF 56 million in Wealth Management. Refer to Note 32 for more information.

Consolidated financial statements

## Note 6 Personnel expenses

| | For the year ended | | | % change from |
|---|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 | 31.12.14 |
| Salaries[1] | **6,260** | 6,269 | 6,268 | 0 |
| Variable compensation – performance awards[2] | **3,209** | 2,820 | 2,986 | 14 |
| *of which: guarantees for new hires* | ***38*** | *48* | *76* | *(21)* |
| Variable compensation – other[2] | **346** | 466 | 288 | (26) |
| *of which: replacement payments[3]* | ***76*** | *81* | *78* | *(6)* |
| *of which: forfeiture credits* | ***(86)*** | *(70)* | *(146)* | *23* |
| *of which: severance payments[4]* | ***157*** | *162* | *114* | *(3)* |
| *of which: retention plan and other payments* | ***198*** | *292* | *242* | *(32)* |
| Contractors | **365** | 234 | 190 | 56 |
| Social security | **817** | 791 | 792 | 3 |
| Pension and other post-employment benefit plans[5] | **807** | 711 | 887 | 14 |
| Wealth Management Americas: Financial advisor compensation[2,6] | **3,552** | 3,385 | 3,140 | 5 |
| Other personnel expenses | **597** | 605 | 631 | (1) |
| **Total personnel expenses[7]** | **15,954** | 15,280 | 15,182 | 4 |

1 Includes role-based allowances. 2 Refer to Note 29 for more information. 3 Replacement payments are payments made to compensate employees for deferred awards forfeited as a result of joining UBS. 4 Includes legally obligated and standard severance payments. 5 Refer to Note 28 for more information. 6 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated based on financial advisor productivity, firm tenure, assets and other variables. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment which are subject to vesting requirements. 7 Includes net restructuring expenses of CHF 458 million, CHF 327 million and CHF 156 million for the years ended 31 December 2015, 31 December 2014 and 31 December 2013, respectively. Refer to Note 32 for more information.

## Note 7 General and administrative expenses

| | For the year ended | | | % change from |
|---|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 | 31.12.14 |
| Occupancy | **928** | 1,005 | 1,044 | (8) |
| Rent and maintenance of IT and other equipment | **510** | 479 | 458 | 6 |
| Communication and market data services | **610** | 608 | 609 | 0 |
| Administration | **855** | 608 | 638 | 41 |
| Marketing and public relations | **484** | 468 | 478 | 3 |
| Travel and entertainment | **456** | 458 | 451 | 0 |
| Professional fees | **1,351** | 1,306 | 1,032 | 3 |
| Outsourcing of IT and other services | **1,742** | 1,603 | 1,340 | 9 |
| Provisions for litigation, regulatory and similar matters[1] | **1,087** | 2,594 | 1,701 | (58) |
| Other | **195** | 248 | 628 | (21) |
| **Total general and administrative expenses[2]** | **8,219** | 9,377 | 8,380 | (12) |

1 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. Refer to Note 22 for more information. Also includes recoveries from third parties of CHF 10 million, CHF 10 million and CHF 15 million for the years ended 31 December 2015, 31 December 2014 and 31 December 2013, respectively. 2 Includes net restructuring expenses of CHF 760 million, CHF 319 million and CHF 548 million for the years ended 31 December 2015, 31 December 2014 and 31 December 2013, respectively. Refer to Note 32 for more information.

## Note 8 Income taxes

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| **Tax expense / (benefit)** | | | |
| **Swiss** | | | |
| Current | **230** | 46 | 93 |
| Deferred | **329** | 1,348 | 455 |
| **Non-Swiss** | | | |
| Current | **476** | 409 | 342 |
| Deferred | **(1,943)** | (2,983) | (1,000) |
| **Total income tax expense / (benefit)** | **(908)** | **(1,180)** | **(110)** |

### Income tax expense / (benefit)

The Swiss current tax expense of CHF 230 million related to taxable profits against which no losses were available to offset, mainly earned by Swiss subsidiaries. The Swiss deferred tax expense of CHF 329 million mainly reflected a net decrease of deferred tax assets previously recognized in relation to tax losses carried forward, partially offset by an increase in recognized deferred tax assets related to temporary differences.

The non-Swiss current tax expense of CHF 476 million related to taxable profits earned by non-Swiss subsidiaries and branches, against which no losses were available to offset. The non-Swiss net deferred tax benefit of CHF 1,943 million was primarily due to an increase in US deferred tax assets, reflecting updated profit forecasts and an extension of the relevant taxable profit forecast period used in valuing deferred tax assets. Based on the performance of its businesses and the accuracy of historical forecasts, UBS AG extended the deferred tax asset forecast period for US taxable profits to seven years from six. In addition, UBS AG considers other factors in evaluating the recoverability of its deferred tax assets, including the remaining tax loss carry-forward period, and its confidence level in assessing the probability of taxable profit beyond the current forecast period. Estimating future profitability is inherently subjective and is particularly sensitive to future economic, market and other conditions which are difficult to predict.

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| Operating profit / (loss) before tax | **5,407** | 2,469 | 3,272 |
| *of which: Swiss* | ***3,665*** | *1,181* | *3,323* |
| *of which: Non-Swiss* | ***1,742*** | *1,288* | *(51)* |
| Income taxes at Swiss tax rate of 21% | **1,135** | 519 | 687 |
| Increase / (decrease) resulting from: | | | |
| Non-Swiss tax rates differing from Swiss tax rate | **(69)** | 68 | (305) |
| Tax effects of losses not recognized | **107** | 325 | 58 |
| Previously unrecognized tax losses now utilized | **(107)** | (285) | (419) |
| Non-taxable and lower taxed income | **(273)** | (384) | (624) |
| Non-deductible expenses and additional taxable income | **519** | 1,069 | 1,245 |
| Adjustments related to prior years – current tax | **29** | 5 | (32) |
| Adjustments related to prior years – deferred tax | **(48)** | (9) | 6 |
| Change in deferred tax valuation allowances | **(2,419)** | (2,373) | (859) |
| Adjustments to deferred tax balances arising from changes in tax rates | **191** | (183) | 107 |
| Other items | **26** | 69 | 28 |
| **Income tax expense / (benefit)** | **(908)** | **(1,180)** | **(110)** |

**Note 8 Income taxes (continued)**

The components of operating profit before tax, and the differences between income tax expense reflected in the financial statements and the amounts calculated at the Swiss tax rate, are provided in the table on the previous page and explained below.

### Non-Swiss tax rates differing from Swiss tax rate

To the extent that UBS AG profits or losses arise outside Switzerland, the applicable local tax rate may differ from the Swiss tax rate. This item reflects, for such profits or losses, an adjustment from the tax expense/benefit that would arise at the Swiss tax rate and the tax expense/benefit that would arise at the applicable local tax rate. If an entity generates a profit, a tax expense arises where the local tax rate is in excess of the Swiss tax rate and a tax benefit arises where the local tax rate is below the Swiss tax rate. Conversely, if an entity incurs a loss, a tax benefit arises where the local tax rate is in excess of the Swiss tax rate and a tax expense arises where the local tax rate is less than the Swiss tax rate.

### Tax effects of losses not recognized

This item relates to tax losses of entities arising in the year, which are not recognized as deferred tax assets. Consequently, no tax benefit arises in relation to those losses. Therefore, the tax benefit calculated by applying the local tax rate to those losses as described above is reversed.

### Previously unrecognized tax losses now utilized

This item relates to taxable profits of the year, which are offset by tax losses of previous years, for which no deferred tax assets were previously recorded. Consequently, no current tax or deferred tax expense arises in relation to those taxable profits. Therefore, the tax expense calculated by applying the local rate on those profits is reversed.

### Non-taxable and lower taxed income

This item relates to profits for the year, which are either permanently not taxable or are taxable, but at a lower rate of tax than the local tax rate. It also includes any permanent deductions made for tax purposes, which are not reflected in the accounts, thereby effectively ensuring that profits covered by the deduction are not taxable.

### Non-deductible expenses and additional taxable income

This item mainly relates to income for the year, which is imputed for tax purposes for an entity, but is not included in its operating profit. In addition, it includes expenses for the year which are permanently non-deductible.

### Adjustments related to prior years – current tax

This item relates to adjustments to current tax expenses for prior years, for example, if the tax payable for a year agreed with the tax authorities is expected to differ from the amount previously reflected in the accounts.

### Adjustments related to prior years – deferred tax

This item relates to adjustments to deferred tax positions recognized in prior years, for example, if a tax loss for a year is fully recognized and the amount of the tax loss agreed with the tax authorities is expected to differ from the amount previously recognized as deferred tax assets in the accounts.

## Note 8 Income taxes (continued)

### Change in deferred tax valuation allowances

This item includes revaluations of deferred tax assets previously recognized resulting from reassessments of expected future taxable profits. It also includes changes in temporary differences in the year, for which deferred tax is not recognized. The amount in the year mainly relates to the upward revaluation of deferred tax assets.

### Adjustments to deferred tax balances arising from changes in tax rates

This item relates to re-measurements of deferred tax assets and liabilities recognized due to changes in tax rates. These have the effect of changing the future tax saving that is expected from tax losses or deductible tax differences and therefore the amount of deferred tax assets recognized or, alternatively, changing the tax cost of additional taxable income from taxable temporary differences and therefore the deferred tax liability.

### Other items

Other items include other differences between profit or losses at the local tax rate and the actual local tax expense or benefit, including increases in provisions for uncertain positions in relation to the current year, interest accruals for such provisions in relation to prior years and other items.

## Tax recognized in equity

Certain tax expenses and benefits were recognized directly in equity. These included a tax benefit of CHF 131 million related to cash flow hedges (2014: expense of CHF 196 million), a tax benefit of CHF 8 million related to financial investments classified as available-for-sale (2014: expense of CHF 52 million), a tax expense of CHF 1 million related to foreign currency translation gains and losses (2014: expense of CHF 7 million) and a tax expense of CHF 19 million related to defined benefit plans (2014: benefit of CHF 246 million) recognized in other comprehensive income. In addition, they included a tax benefit of CHF 9 million recognized in share premium (2014: benefit of CHF 3 million). Furthermore, there were net foreign currency translation movements related to the effects of exchange rate changes on tax assets and liabilities denominated in currencies other than Swiss francs.

## Deferred tax assets and liabilities

UBS AG has deferred tax assets related to tax loss carry-forwards and other items as shown in the table below. As of 31 December 2015, deferred tax assets of CHF 2,094 million (CHF 1,378 million as of 31 December 2014) were recognized by entities which incurred losses in either the current or preceding year.

The valuation allowance reflects deferred tax assets which were not recognized because it was not considered probable that future taxable profits will be available to utilize the related tax loss carry-forwards and deductible temporary differences.

| *CHF million* | 31.12.15 | | | 31.12.14 | | |
|---|---|---|---|---|---|---|
| **Deferred tax assets[1]** | **Gross** | **Valuation allowance** | **Recognized** | Gross | Valuation allowance | Recognized |
| Tax loss carry-forwards | **25,471** | **(18,378)** | **7,093** | 29,727 | (22,271) | 7,456 |
| Temporary differences | **7,023** | **(1,284)** | **5,739** | 4,869 | (1,264) | 3,605 |
| *of which: related to compensation and benefits* | ***1,576*** | ***(267)*** | ***1,310*** | *1,424* | *(317)* | *1,107* |
| *of which: related to trading assets* | ***1,116*** | ***(77)*** | ***1,038*** | *1,459* | *(61)* | *1,398* |
| *of which: related to investments in subsidiaries and goodwill* | ***2,310*** | ***0*** | ***2,310*** | *0* | *0* | *0* |
| *of which: other* | ***2,021*** | ***(940)*** | ***1,081*** | *1,986* | *(886)* | *1,100* |
| **Total deferred tax assets** | **32,494** | **(19,661)** | **12,833** | 34,596 | (23,535) | 11,060 |
| **Deferred tax liabilities** | | | | | | |
| Goodwill and intangible assets | | | **28** | | | 32 |
| Financial investments | | | **1** | | | 13 |
| Investments in associates and other | | | **27** | | | 35 |
| **Total deferred tax liabilities** | | | **56** | | | 80 |

1 Less deferred tax liabilities as applicable.

Consolidated financial statements

## Note 8 Income taxes (continued)

As of 31 December 2015, tax loss carry-forwards totaling CHF 56,973 million (31 December 2014: CHF 68,869 million), which are not recognized as deferred tax assets, were available to be offset against future taxable profits. These tax losses expire as outlined in the table below.

**Unrecognized tax loss carry-forwards**

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Within 1 year | **3,727** | 9,341 |
| From 2 to 5 years | **33** | 43 |
| From 6 to 10 years | **753** | 613 |
| From 11 to 20 years | **34,833** | 39,899 |
| No expiry | **17,627** | 18,973 |
| **Total** | **56,973** | 68,869 |

In general, Swiss tax losses can be carried forward for seven years, US federal tax losses for 20 years and UK and Jersey tax losses for an unlimited period.

UBS AG recognizes deferred tax liabilities on undistributed earnings of subsidiaries except to the extent that those earnings are indefinitely invested. As of 31 December 2015, no such earnings were considered indefinitely invested.

## Note 9 Earnings per share (EPS) and shares outstanding

During 2015, UBS AG shares were delisted from the SIX and the NYSE. As of 31 December 2015, 100% of UBS AG's issued shares were held by UBS Group AG and therefore were not publicly traded. Accordingly, earnings per share information is not provided for UBS AG.

# Balance sheet notes: assets

## Note 10 Due from banks and loans (held at amortized cost)

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| **By type of exposure** | | |
| Due from banks, gross | **11,869** | 13,347 |
| *of which: due from central banks* | ***1,035*** | *648* |
| Allowance for credit losses | **(3)** | (13) |
| Due from banks, net | **11,866** | 13,334 |
| Loans, gross | | |
| Residential mortgages | **141,608** | 142,380 |
| Commercial mortgages | **21,509** | 22,368 |
| Lombard loans | **107,084** | 108,230 |
| Other loans[1] | **39,321** | 39,152 |
| Finance lease receivables[2] | **1,083** | 1,101 |
| Securities[3] | **2,807** | 3,448 |
| Subtotal | **313,413** | 316,679 |
| Allowance for credit losses | **(689)** | (695) |
| Loans, net | **312,723** | 315,984 |
| **Total due from banks and loans, net[4]** | **324,590** | 329,317 |

1 Includes corporate loans. 2 Refer to Note 33 for more information. 3 Includes securities reclassified from held for trading. Refer to Note 1a item 10 and Note 27 for more information. 4 Refer to "Maximum exposure to credit risk" in the "Risk management and control" section of this report for information on collateral and credit enhancements.

Consolidated financial statements

## Note 11 Cash collateral on securities borrowed and lent, reverse repurchase and repurchase agreements, and derivative instruments

UBS AG enters into collateralized reverse repurchase and repurchase agreements, securities borrowing and securities lending transactions and derivative transactions that may result in credit exposure in the event that the counterparty to the transaction is unable to fulfill its contractual obligations. UBS AG manages credit risk associated with these activities by monitoring counterparty credit exposure and collateral values on a daily basis and requiring additional collateral to be deposited with or returned to UBS AG when deemed necessary.

➔ **Refer to Note 26 for more information on offsetting between financial assets and financial liabilities**

**Balance sheet assets**

| | 31.12.15 | | | 31.12.14 | | |
|---|---|---|---|---|---|---|
| *CHF million* | Cash collateral on securities borrowed | Reverse repurchase agreements | Cash collateral receivables on derivative instruments | Cash collateral on securities borrowed | Reverse repurchase agreements | Cash collateral receivables on derivative instruments |
| **By counterparty** | | | | | | |
| Banks | 8,658 | 12,903 | 6,037 | 10,517 | 13,746 | 10,265 |
| Customers | 16,925 | 54,991 | 17,727 | 13,546 | 54,668 | 20,713 |
| **Total** | 25,584 | 67,893 | 23,763 | 24,063 | 68,414 | 30,979 |

**Balance sheet liabilities**

| | 31.12.15 | | | 31.12.14 | | |
|---|---|---|---|---|---|---|
| *CHF million* | Cash collateral on securities lent | Repurchase agreements | Cash collateral payables on derivative instruments | Cash collateral on securities lent | Repurchase agreements | Cash collateral payables on derivative instruments |
| **By counterparty** | | | | | | |
| Banks | 7,078 | 5,637 | 17,041 | 7,041 | 5,174 | 20,895 |
| Customers | 951 | 4,016 | 21,241 | 2,138 | 6,644 | 21,477 |
| **Total** | 8,029 | 9,653 | 38,282 | 9,180 | 11,818 | 42,372 |

## Note 12 Allowances and provisions for credit losses

*CHF million*

| By movement | Specific allowances | Collective allowances | Total allowances | Provisions[1] | Total 31.12.15 | Total 31.12.14 |
|---|---|---|---|---|---|---|
| Balance at the beginning of the year | 704 | 8 | 711 | 23 | 735 | 750 |
| Write-offs / usage of provisions | (162) | (2) | (164) | 0 | (164) | (154) |
| Recoveries | 48 | 0 | 48 | 0 | 48 | 29 |
| Increase / (decrease) recognized in the income statement | 114 | 0 | 114 | 2 | 117 | 78 |
| Reclassifications | (9) | 0 | (9) | 9 | 0 | 0 |
| Foreign currency translation | (11) | 0 | (11) | 0 | (11) | 21 |
| Other | 2 | 0 | 2 | 0 | 2 | 11 |
| **Balance at the end of the year** | 686 | 6 | 692 | 35 | 727 | 735 |

1 Represents provisions for loan commitments and guarantees. Refer to Note 22 for more information. Refer to the "Financial and operating performance" section of this report for the maximum irrevocable amount of loan commitments and guarantees.

| By balance sheet line | Specific allowances | Collective allowances | Total allowances | Provisions | Total 31.12.15 | Total 31.12.14 |
|---|---|---|---|---|---|---|
| Due from banks | 3 | 0 | 3 | | 3 | 13 |
| Loans | 683 | 6 | 689 | | 689 | 695 |
| Cash collateral on securities borrowed | 0 | 0 | 0 | | 0 | 4 |
| Provisions[1] | | | | 35 | 35 | 23 |
| **Balance at the end of the year** | 686 | 6 | 692 | 35 | 727 | 735 |

1 Represents provisions for loan commitments and guarantees.

Consolidated financial statements

## Note 13 Trading portfolio

| CHF million | 31.12.15 | 31.12.14 |
|---|---|---|
| **Trading portfolio assets by issuer type**[1] | | |
| **Debt instruments** | | |
| Government and government agencies | 18,768 | 16,625 |
| *of which: Switzerland* | *119* | *293* |
| *of which: USA* | *6,050* | *3,816* |
| *of which: United Kingdom* | *3,915* | *2,103* |
| *of which: Australia* | *1,649* | *2,307* |
| *of which: Sweden* | *1,274* | *191* |
| *of which: Singapore* | *1,259* | *822* |
| *of which: Germany* | *796* | *1,280* |
| Banks | 2,691 | 4,342 |
| Corporates and other | 19,443 | 24,252 |
| **Total debt instruments** | **40,902** | **45,219** |
| **Equity instruments** | **63,984** | **69,763** |
| Financial assets for unit-linked investment contracts | 15,519 | 17,410 |
| **Financial assets held for trading** | **120,405** | **132,392** |
| Precious metals and other physical commodities | 3,642 | 5,764 |
| **Total trading portfolio assets** | **124,047** | **138,156** |
| **Trading portfolio liabilities by issuer type**[1] | | |
| **Debt instruments** | | |
| Government and government agencies | 7,257 | 8,716 |
| *of which: Switzerland* | *50* | *232* |
| *of which: USA* | *2,754* | *2,987* |
| *of which: France* | *915* | *1,259* |
| *of which: Italy* | *838* | *569* |
| *of which: Australia* | *798* | *1,087* |
| *of which: Japan* | *725* | *810* |
| *of which: Germany* | *510* | *335* |
| Banks | 782 | 743 |
| Corporates and other | 2,014 | 2,591 |
| **Total debt instruments** | **10,053** | **12,050** |
| **Equity instruments** | **19,084** | **15,908** |
| **Total trading portfolio liabilities** | **29,137** | **27,958** |

1 Refer to Note 24e for more information on product type and fair value hierarchy categorization.

## Note 14 Derivative instruments and hedge accounting

### Derivatives: overview

A derivative is a financial instrument, the value of which is derived from the value of one or more variables (underlyings). Underlyings may be indices, foreign currency exchange or interest rates, or the value of shares, commodities, bonds or other financial instruments. A derivative commonly requires little or no initial net investment by either counterparty to the trade.

The majority of derivative contracts are negotiated with respect to notional amounts, tenor, price and settlement mechanisms, as is customary with other financial instruments.

Over-the-counter (OTC) derivative contracts are usually traded under a standardized International Swaps and Derivatives Association (ISDA) master agreement between UBS AG and its counterparties. Terms are negotiated directly with counterparties and the contracts will have industry-standard settlement mechanisms prescribed by ISDA. The industry continues to promote the use of central counterparties (CCP) to clear OTC trades. The trend toward CCP clearing and settlement will generally facilitate the reduction of systemic credit exposures.

Other derivative contracts are standardized in terms of their amounts and settlement dates, and are bought and sold on regulated exchanges. These are commonly referred to as exchange-traded derivatives (ETD) contracts. Exchanges offer the benefits of pricing transparency, standardized daily settlement of changes in value, and consequently reduced credit risk.

For presentation purposes, UBS AG is subject to the IFRS netting provisions for derivative contracts. Derivative instruments are measured at fair value and generally classified as *Positive replacement values* and *Negative replacement values* on the face of the balance sheet. However, ETD which are economically settled on a daily basis and certain OTC derivatives which are in substance net settled on a daily basis are classified as *Cash collateral receivables on derivative instruments* or *Cash collateral payables on derivative instruments*. Changes in the replacement values of derivatives are recorded in *Net trading income,* unless the derivatives are designated and effective as hedging instruments in certain types of hedge accounting relationships.

**➔ Refer to Note 1a item 15 for more information**

Valuation principles and techniques applied in the measurement of derivative instruments are discussed in Note 24. *Positive replacement values* represent the estimated amount UBS AG would receive if the derivative contract were sold on the balance sheet date. *Negative replacement values* indicate the estimated amount UBS AG would pay to transfer its obligations in respect of the underlying contract, were it required or entitled to do so on the balance sheet date.

Derivatives embedded in other financial instruments are not included in the table "Derivative instruments" within this Note. Bifurcated embedded derivatives are presented on the same balance sheet line as the host contract. In cases where UBS AG applies the fair value option to hybrid instruments, bifurcation of an embedded derivative component is not required and as such, this component is also not included in the table "Derivative instruments."

**➔ Refer to Notes 20 and 24 for more information**

### Types of derivative instruments

UBS AG uses the following derivative financial instruments for both trading and hedging purposes. Through the use of the products listed below, UBS AG is engaged in extensive high-volume market-making and client facilitation trading referred to as the flow business.

The main types of derivative instruments used by UBS AG are:

- Swaps: Swaps are transactions in which two parties exchange cash flows on a specified notional amount for a predetermined period. Cross-currency swaps involve the exchange of interest payments based on two different currency notional amounts and reference interest rates and generally also entail exchange of notional amounts at the start or end of the contract. Most cross-currency swaps are traded in the OTC market.
- Forwards and futures: Forwards and futures are contractual obligations to buy or sell financial instruments or commodities on a future date at a specified price. Forward contracts are tailor-made agreements that are transacted between counterparties in the OTC market, whereas futures are standardized contracts transacted on regulated exchanges.
- Options and warrants: Options and warrants are contractual agreements under which, typically, the seller (writer) grants the purchaser the right, but not the obligation, either to buy (call option), or to sell (put option) at, or before, a set date, a specified quantity of a financial instrument or commodity at a predetermined price. The purchaser pays a premium to the seller for this right. Options involving more complex payment structures are also transacted. Options may be traded in the OTC market, or on a regulated exchange, and may be traded in the form of a security (warrant).

## Note 14 Derivative instruments and hedge accounting (continued)

The main derivative product types used by UBS AG are:

- Interest rate contracts: Interest rate products include interest rate swaps, forward rate agreements, swaptions and caps and floors.
- Credit derivative contracts: Credit default swaps (CDS) are the most common form of a credit derivative, under which the party buying protection makes one or more payments to the party selling protection in exchange for an undertaking by the seller to make a payment to the buyer following the occurrence of a contractually defined credit event with respect to a specified third-party credit entity. Settlement following a credit event may be a net cash amount, or cash in return for physical delivery of one or more obligations of the credit entity, and is made regardless of whether the protection buyer has actually suffered a loss. After a credit event and settlement, the contract is generally terminated. More information on credit derivatives is included in a separate section on the following pages. Total return swaps (TRS) are structured with one party making payments based on a set rate, either fixed or variable, plus any negative changes in fair value of an underlying asset, and the other party making payments based on the return of the asset, which includes both income it generates and any positive changes in its fair value.
- Foreign exchange contracts: Foreign exchange contracts include spot, forward and cross-currency swaps and options and warrants. Forward purchase and sale currency contracts are typically executed to meet client needs and for trading and hedging purposes.
- Equity/index contracts: UBS AG uses equity derivatives linked to single names, indices and baskets of single names and indices. The indices used may be based on a standard market index, or may be defined by UBS AG. The product types traded include vanilla listed derivatives, both options and futures, total return swaps, forwards and exotic OTC contracts.
- Commodities contracts: UBS AG has an established commodity derivatives trading business, which includes the commodity index and structured commodities business. The index and structured business are client facilitation businesses trading exchange-traded funds, OTC swaps and options on commodity indices and individual underlying commodities. The underlying indices cover third-party and UBS AG owned indices such as the UBS Bloomberg Constant Maturity Commodity Index and the Bloomberg Commodity Indices. All of the trading is cash-settled with no physical delivery of the underlying. UBS AG also has an established precious metals business in both flow and non-vanilla OTC products incorporating both physical and non-physical trading. The flow business is investor led and products include ETD, vanilla and certain non-vanilla OTC. The vanilla OTC are in forwards, swaps and options.

Measurement techniques applied to determine the fair value of each derivative product type are described in Note 24.

### Risks of derivative instruments

Derivative instruments are transacted in many trading portfolios, which generally include several types of instruments, not just derivatives. The market risk of derivatives is predominantly managed and controlled as an integral part of the market risk of these portfolios. UBS AG's approach to market risk is described in the audited sections of the "Risk management and control" section of this report.

Derivative instruments are transacted with many different counterparties, most of whom are also counterparties for other types of business. The credit risk of derivatives is managed and controlled in the context of UBS AG's overall credit exposure to its counterparties. UBS AG's approach to credit risk is described in the audited portions of Credit risk in the "Risk management and control" section of this report. It should be noted that, although the positive replacement values shown on the balance sheet can be an important component of UBS AG's credit exposure, the positive replacement values for a counterparty are rarely an adequate reflection of UBS AG's credit exposure in its derivatives business with that counterparty. This is generally the case because, on the one hand, replacement values can increase over time (potential future exposure), while on the other hand, exposure may be mitigated by entering into master netting agreements and bilateral collateral arrangements. Both the exposure measures used internally by UBS AG to control credit risk and the capital requirements imposed by regulators reflect these additional factors.

The replacement values presented on UBS AG's balance sheet include netting in accordance with IFRS requirements (refer to Note 1a item 35), which is generally more restrictive than netting in accordance with Swiss federal banking law. Swiss federal banking law netting is generally based on close-out netting arrangements that are enforceable in case of insolvency.

**➔ Refer to Note 26 for more information on the values of positive and negative replacement values after consideration of netting potential allowed under enforceable netting arrangements**

## Note 14 Derivative instruments and hedge accounting (continued)

### Derivative instruments[1]

| | 31.12.15 | | | | | 31.12.14 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *CHF billion* | Total PRV[2] | Notional values related to PRVs[3] | Total NRV[4] | Notional values related to NRVs[3] | Other notional values[3,5] | Total PRV[2] | Notional values related to PRVs[3] | Total NRV[4] | Notional values related to NRVs[3] | Other notional values[3,5] |
| **Interest rate contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Forward contracts[6] | 0.1 | 48.6 | 0.2 | 51.9 | 2,351.4 | 0.1 | 49.0 | 0.2 | 55.9 | 2,622.8 |
| Swaps | 57.0 | 840.1 | 48.2 | 782.0 | 5,904.7 | 91.8 | 1,323.4 | 83.7 | 1,233.4 | 10,244.3 |
| Options | 17.3 | 581.7 | 19.1 | 549.8 | | 31.7 | 799.8 | 33.9 | 790.3 | |
| Exchange-traded contracts | | | | | | | | | | |
| Futures | | | | | 346.0 | | | | | 446.0 |
| Options | 0.0 | 22.7 | 0.0 | 15.5 | 169.4 | 0.0 | 15.7 | 0.0 | 4.9 | 134.7 |
| Agency transactions[7] | 0.1 | | 0.1 | | | 0.1 | | 0.1 | | |
| **Total** | 74.5 | 1,493.1 | 67.6 | 1,399.3 | 8,771.4 | 123.7 | 2,187.9 | 117.9 | 2,084.5 | 13,447.7 |
| **Credit derivative contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Credit default swaps | 6.1 | 152.7 | 6.0 | 165.7 | | 11.1 | 238.1 | 11.3 | 245.8 | |
| Total return swaps | 0.6 | 5.0 | 0.6 | 4.1 | | 0.4 | 3.8 | 0.4 | 5.1 | |
| Options and warrants | 0.0 | 4.2 | 0.0 | 0.1 | | 0.0 | 6.5 | 0.0 | 1.6 | |
| **Total** | 6.7 | 161.9 | 6.7 | 169.8 | | 11.5 | 248.4 | 11.7 | 252.4 | |
| **Foreign exchange contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Forward contracts | 17.8 | 727.6 | 16.6 | 673.9 | | 20.6 | 817.6 | 19.2 | 741.4 | |
| Interest and currency swaps | 38.3 | 1,429.9 | 37.6 | 1,330.1 | | 62.2 | 1,626.3 | 62.3 | 1,554.0 | |
| Options | 9.5 | 496.8 | 9.3 | 478.0 | | 15.6 | 667.3 | 16.0 | 601.4 | |
| Exchange-traded contracts | | | | | | | | | | |
| Futures | | | | | 8.1 | | | | | 14.8 |
| Options | 0.0 | 3.4 | 0.0 | 4.6 | | 0.0 | 4.9 | 0.1 | 3.7 | |
| Agency transactions[7] | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | |
| **Total** | 65.7 | 2,657.7 | 63.5 | 2,486.6 | 8.1 | 98.4 | 3,116.2 | 97.6 | 2,900.5 | 14.8 |
| **Equity / index contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Forward contracts | 0.0 | 0.0 | 0.0 | 0.0 | | 0.1 | 0.1 | 0.0 | 0.1 | |
| Swaps | 2.9 | 64.1 | 4.3 | 87.0 | | 3.4 | 58.5 | 4.7 | 70.0 | |
| Options | 4.8 | 59.1 | 6.7 | 92.6 | | 6.4 | 71.7 | 8.9 | 115.4 | |
| Exchange-traded contracts | | | | | | | | | | |
| Futures | | | | | 30.0 | | | | | 27.9 |
| Options | 4.3 | 107.2 | 5.2 | 126.0 | 13.4 | 4.8 | 109.4 | 4.8 | 124.2 | 10.1 |
| Agency transactions[7] | 5.0 | | 4.9 | | | 4.9 | | 4.8 | | |
| **Total** | 16.9 | 230.3 | 21.2 | 305.6 | 43.3 | 19.5 | 239.6 | 23.3 | 309.6 | 38.0 |

Table continues on the next page.

## Note 14 Derivative instruments and hedge accounting (continued)

### Derivative instruments[1] (continued)

Table continued from the previous page.

| | 31.12.15 | | | | | 31.12.14 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *CHF billion* | Total PRV[2] | Notional values related to PRVs[3] | Total NRV[4] | Notional values related to NRVs[3] | Other notional values[3,5] | Total PRV[2] | Notional values related to PRVs[3] | Total NRV[4] | Notional values related to NRVs[3] | Other notional values[3,5] |
| **Commodity contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Forward contracts | 0.3 | 2.8 | 0.3 | 2.3 | | 0.3 | 4.6 | 0.3 | 4.4 | |
| Swaps | 0.7 | 9.9 | 0.5 | 9.4 | | 0.9 | 13.8 | 0.5 | 7.9 | |
| Options | 0.9 | 11.8 | 0.6 | 7.5 | | 0.9 | 12.5 | 0.7 | 9.8 | |
| Exchange-traded contracts | | | | | | | | | | |
| Futures | | | | | 8.2 | | | | | 7.3 |
| Forward contracts | 0.0 | 4.4 | 0.2 | 3.7 | | 0.0 | 6.5 | 0.1 | 5.3 | |
| Options | 0.0 | 1.0 | 0.1 | 1.9 | 0.1 | 0.0 | 0.8 | 0.1 | 3.7 | 0.1 |
| Agency transactions[7] | 1.5 | | 1.5 | | | 1.4 | | 1.4 | | |
| **Total** | 3.4 | 30.0 | 3.2 | 24.6 | 8.3 | 3.6 | 38.1 | 3.2 | 31.1 | 7.3 |
| **Unsettled purchases of non-derivative financial investments[8]** | 0.1 | 9.6 | 0.2 | 16.7 | | 0.1 | 11.4 | 0.2 | 12.9 | |
| **Unsettled sales of non-derivative financial investments[8]** | 0.2 | 20.1 | 0.1 | 6.4 | | 0.2 | 16.1 | 0.1 | 9.1 | |
| **Total derivative instruments, based on IFRS netting[9]** | 167.4 | 4,602.7 | 162.4 | 4,409.0 | 8,831.1 | 257.0 | 5,857.8 | 254.1 | 5,600.2 | 13,507.9 |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 31 December 2015, these derivatives amounted to a PRV of CHF 0.1 billion (related notional values of CHF 0.6 billion) and an NRV of CHF 0.2 billion (related notional values of CHF 3.4 billion). As of 31 December 2014, these derivatives amounted to a PRV of CHF 0.3 billion (related notional values of CHF 6.5 billion) and an NRV of CHF 0.3 billion (related notional values of CHF 7.8 billion). 2 PRV: Positive replacement value. 3 In cases where replacement values are presented on a net basis on the balance sheet, the respective notional values of the netted replacement values are still presented on a gross basis. 4 NRV: Negative replacement value. 5 Other notional values relate to derivatives which are cleared through either a central clearing counterparty or an exchange. The fair value of these derivatives is presented on the balance sheet net of the corresponding cash margin under Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments and was not material for the periods presented. 6 Negative replacement values as of 31 December 2015 include CHF 0.1 billion related to derivative loan commitments (31 December 2014: CHF 0.0 billion). No notional amounts related to these replacement values are included the table. The maximum irrevocable amount related to these commitments was CHF 15.8 billion as of 31 December 2015 (31 December 2014: CHF 4.5 billion). 7 Notional values of exchange-traded agency transactions and OTC cleared transactions entered into on behalf of clients are not disclosed due to their significantly different risk profile. 8 Changes in the fair value of purchased and sold non-derivative financial investments between trade date and settlement date are recognized as replacement values. 9 Refer to Note 26 for more information on netting arrangements.

The notional amount of a derivative is generally the quantity of the underlying instrument on which the derivative contract is based and is the reference against which changes in the value of the derivative are measured. Notional values, in themselves, are generally not a direct indication of the values which are exchanged between parties, and are therefore not a direct measure of risk or financial exposure, but are viewed as an indication of the scale of the different types of derivatives entered into by UBS AG.

The maturity profile of OTC interest rate contracts held as of 31 December 2015, based on notional values, was: approximately 53% (31 December 2014: 45%) mature within one year, 29% (31 December 2014: 34%) within one to five years and 18% (31 December 2014: 22%) after five years. Notional values of interest rate contracts cleared with a clearing house that qualify for IFRS balance sheet netting are presented under other notional values and are categorized into maturity buckets on the basis of contractual maturities of the cleared underlying derivative contracts.

### Derivatives transacted for trading purposes

Most of UBS AG's derivative transactions relate to sales and trading activities. Sales activities include the structuring and marketing of derivative products to customers to enable them to take, transfer, modify, or reduce current or expected risks. Trading activities include market-making to directly support the facilitation and execution of client activity. Market-making involves quoting bid and offer prices to other market participants with the intention of generating revenues based on spread and volume.

#### Credit derivatives

UBS AG is an active dealer in the fixed income market, including CDS and related products, with respect to a large number of issuers' securities. The primary purpose of these activities is for the benefit of UBS AG's clients through market-making activities and for the ongoing hedging of trading book exposures.

## Note 14 Derivative instruments and hedge accounting (continued)

Market-making activity, which is undertaken within the Investment Bank, consists of buying and selling single-name CDS, index CDS, loan CDS and related referenced cash instruments to facilitate client trading activity. UBS AG also actively utilizes CDS to economically hedge specific counterparty credit risks in its accrual and traded loan portfolios (including off-balance sheet loan commitments) with the aim of reducing concentrations in individual names, sectors or specific portfolios.

In addition, UBS AG actively utilizes CDS to economically hedge specific counterparty credit risks in its OTC derivative portfolios including financial instruments which are designated at fair value through profit or loss.

The tables below provide further details on credit protection bought and sold, including replacement and notional value information by instrument type and counterparty type. The value of protection bought and sold is not, in isolation, a measure of UBS AG's credit risk. Counterparty relationships are viewed in terms of the total outstanding credit risk, which relates to other instruments in addition to CDS, and in connection with collateral arrangements in place. On a notional value basis, credit protection bought and sold as of 31 December 2015 matures in a range of approximately 22% (31 December 2014: 27%) within one year, approximately 68% (31 December 2014: 64%) within one to five years and approximately 10% (31 December 2014: 8%) after five years.

### Credit derivatives by type of instrument

| | Protection bought | | | Protection sold | | |
|---|---|---|---|---|---|---|
| *CHF billion* | **Fair value: PRV** | **Fair value: NRV** | **Notional values** | **Fair value: PRV** | **Fair value: NRV** | **Notional values** |
| Single-name credit default swaps | **3.1** | **1.9** | **115.5** | **1.9** | **2.9** | **105.1** |
| Multi-name index linked credit default swaps | **0.3** | **0.6** | **48.0** | **0.6** | **0.5** | **45.6** |
| Multi-name other credit default swaps | **0.1** | **0.1** | **2.4** | **0.0** | **0.1** | **1.8** |
| Total rate of return swaps | **0.5** | **0.2** | **6.3** | **0.1** | **0.4** | **2.8** |
| Options and warrants | **0.0** | **0.0** | **4.2** | **0.0** | **0.0** | **0.1** |
| **Total 31 December 2015** | **4.0** | **2.8** | **176.4** | **2.6** | **3.9** | **155.3** |
| *of which: credit derivatives related to economic hedges* | *2.7* | *2.4* | *152.8* | *2.2* | *2.5* | *132.8* |
| *of which: credit derivatives related to market-making* | *1.4* | *0.4* | *23.6* | *0.4* | *1.3* | *22.5* |

| | Protection bought | | | Protection sold | | |
|---|---|---|---|---|---|---|
| *CHF billion* | Fair value: PRV | Fair value: NRV | Notional values | Fair value: PRV | Fair value: NRV | Notional values |
| Single-name credit default swaps | 5.9 | 4.0 | 173.3 | 3.0 | 5.6 | 148.8 |
| Multi-name index linked credit default swaps | 0.4 | 0.9 | 72.8 | 1.7 | 0.5 | 80.7 |
| Multi-name other credit default swaps | 0.1 | 0.3 | 4.8 | 0.0 | 0.1 | 3.4 |
| Total rate of return swaps | 0.1 | 0.3 | 5.4 | 0.3 | 0.2 | 3.5 |
| Options and warrants | 0.0 | 0.0 | 6.5 | 0.0 | 0.0 | 1.6 |
| **Total 31 December 2014** | 6.5 | 5.4 | 262.8 | 5.0 | 6.3 | 238.0 |
| *of which: credit derivatives related to economic hedges* | *3.2* | *5.0* | *245.5* | *4.6* | *3.0* | *220.5* |
| *of which: credit derivatives related to market-making* | *3.3* | *0.4* | *17.3* | *0.5* | *3.3* | *17.4* |

## Note 14 Derivative instruments and hedge accounting (continued)

### Credit derivatives by counterparty

| | Protection bought | | | Protection sold | | |
|---|---|---|---|---|---|---|
| *CHF billion* | Fair value: PRV | Fair value: NRV | Notional values | Fair value: PRV | Fair value: NRV | Notional values |
| Broker-dealers | 0.8 | 0.3 | 27.3 | 0.2 | 0.6 | 19.5 |
| Banks | 1.9 | 1.3 | 78.0 | 1.2 | 1.6 | 68.3 |
| Central clearing counterparties | 0.4 | 0.8 | 55.3 | 0.9 | 0.9 | 58.9 |
| Other | 0.8 | 0.4 | 15.8 | 0.3 | 0.8 | 8.7 |
| **Total 31 December 2015** | 4.0 | 2.8 | 176.4 | 2.6 | 3.9 | 155.3 |

| | Protection bought | | | Protection sold | | |
|---|---|---|---|---|---|---|
| *CHF billion* | Fair value: PRV | Fair value: NRV | Notional values | Fair value: PRV | Fair value: NRV | Notional values |
| Broker-dealers | 1.4 | 0.5 | 32.8 | 0.3 | 1.1 | 23.5 |
| Banks | 4.0 | 2.9 | 156.4 | 2.6 | 4.4 | 144.3 |
| Central clearing counterparties | 0.2 | 1.1 | 53.2 | 1.3 | 0.3 | 56.7 |
| Other | 0.9 | 0.9 | 20.4 | 0.8 | 0.5 | 13.5 |
| **Total 31 December 2014** | 6.5 | 5.4 | 262.8 | 5.0 | 6.3 | 238.0 |

UBS AG's CDS trades are documented using industry standard forms of documentation or equivalent terms documented in a bespoke agreement. The agreements that govern CDS generally do not contain recourse provisions that would enable UBS AG to recover from third parties any amounts paid out by UBS AG.

The types of credit events that would require UBS AG to perform under a CDS contract are subject to agreement between the parties at the time of the transaction. However, nearly all transactions are traded using credit events that are applicable under certain market conventions based on the type of reference entity to which the transaction relates. Applicable credit events by market conventions include bankruptcy, failure to pay, restructuring, obligation acceleration and repudiation / moratorium.

### Contingent collateral features of derivative liabilities

Certain derivative payables contain contingent collateral or termination features triggered upon a downgrade of the published credit rating of UBS AG in the normal course of business. Based on UBS AG's credit ratings as of 31 December 2015, contractual outflows related to OTC derivative transactions of approximately CHF 0.2 billion, CHF 1.6 billion and CHF 1.9 billion would have been required in the event of a one-notch, two-notch and three-notch reduction in long-term credit ratings, respectively. In evaluating UBS AG's liquidity requirements, UBS AG considers additional collateral or termination payments that would be required in the event of a reduction in UBS AG's long-term credit ratings, and a corresponding reduction in short-term ratings.

## Derivatives transacted for hedging purposes

### Derivatives used for structural hedging

UBS AG enters into derivative transactions for the purposes of hedging risks inherent in assets, liabilities and forecast transactions. The accounting treatment of hedge transactions varies according to the nature of the instrument hedged and whether the hedge qualifies as such for accounting purposes.

Derivative transactions that qualify and are designated as hedges for accounting purposes are described under the corresponding headings in this Note (fair value hedges, cash flow hedges and hedges of net investments in foreign operations). UBS AG's accounting policies for derivatives designated and accounted for as hedging instruments are explained in Note 1a item 15, where terms used in the following sections are explained.

UBS AG has also entered into various hedging strategies utilizing derivatives for which hedge accounting has not been applied. These include interest rate swaps and other interest rate derivatives (e.g., futures) for day-to-day economic interest rate risk management purposes. In addition, UBS AG has used equity futures, options and, to a lesser extent, swaps for economic hedging in a variety of equity trading strategies to offset underlying equity and equity volatility exposure. UBS AG has also entered into CDS that provide economic hedges for credit risk exposures (refer to the credit derivatives section of this Note). Fair value changes of derivatives that are part of economic relationships, but do not qualify for hedge accounting treatment, are reported *in Net trading income,* except for the forward points on certain short duration foreign exchange contracts, which are reported in *Net interest income.*

## Note 14 Derivative instruments and hedge accounting (continued)

### Fair value hedges: interest rate risk related to debt instruments

UBS AG's fair value hedges principally consist of interest rate swaps that are used to protect against changes in the fair value of fixed-rate debt instruments, such as non-structured fixed-rate bonds, covered bonds and subordinated debt, due to movements in market interest rates. The fair values of outstanding interest rate derivatives designated as fair value hedges were assets of CHF 1,656 million and liabilities of CHF 11 million as of 31 December 2015 and assets of CHF 2,236 million and liabilities of CHF 37 million as of 31 December 2014.

**Fair value hedges of interest rate risk**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| Gains / (losses) on hedging instruments | **554** | 1,113 | (1,123) |
| Gains / (losses) on hedged items attributable to the hedged risk | **(552)** | (1,111) | 1,116 |
| **Net gains / (losses) representing ineffective portions of fair value hedges** | **2** | 2 | (7) |

### Fair value hedges: portfolio interest rate risk related to loans

UBS AG also applies fair value hedge accounting to mortgage loan portfolio interest rate risk. The change in fair value of the hedged items is recorded separately from the hedged item and is included within *Other assets* on the balance sheet. The fair values of outstanding interest rate derivatives designated for these hedges as of 31 December 2015 were assets of CHF 7 million and liabilities of CHF 327 million (31 December 2014: liabilities of CHF 256 million).

**Fair value hedge of portfolio of interest rate risk**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| Gains / (losses) on hedging instruments | **(176)** | (694) | 636 |
| Gains / (losses) on hedged items attributable to the hedged risk | **147** | 676 | (625) |
| **Net gains / (losses) representing ineffective portions of fair value hedges** | **(29)** | (18) | 11 |

### Cash flow hedges of forecasted transactions

UBS AG is exposed to variability in future interest cash flows on non-trading financial assets and liabilities that bear interest at variable rates or are expected to be refinanced or reinvested in the future. The amounts and timing of future cash flows, representing both principal and interest flows, are projected based on contractual terms and other relevant factors including estimates of prepayments and defaults. The aggregate principal balances and interest cash flows across all portfolios over time form the basis for identifying the non-trading interest rate risk of UBS AG, which is hedged with interest rate swaps, the maximum maturity of which is 13 years. The table on the following page shows forecasted principal balances on which expected interest cash flows arise as of 31 December 2015. Amounts shown represent, by time bucket, average assets and liabilities subject to forecasted cash flows designated as hedged items in cash flow hedge accounting relationships.

As of 31 December 2015, the fair values of outstanding derivatives designated as cash flow hedges of forecasted transactions were CHF 2,176 million assets and CHF 195 million liabilities (31 December 2014: CHF 4,521 million assets and CHF 1,262 million liabilities).

In 2015, a gain of CHF 150 million was recognized in *Net trading income* due to hedge ineffectiveness, compared with a gain of CHF 87 million in 2014 and a loss of CHF 80 million in 2013.

## Note 14 Derivative instruments and hedge accounting (continued)

**Principal balances subject to cash flow forecasts**

| CHF billion | Within 1 year | 1–3 years | 3–5 years | 5–10 years | Over 10 years |
|---|---|---|---|---|---|
| Assets | 61 | 81 | 48 | 54 | 1 |
| Liabilities | 4 | 7 | 3 | 3 | 0 |
| **Net balance** | **57** | **74** | **45** | **51** | **1** |

### Hedges of net investments in foreign operations

UBS AG applies hedge accounting for certain net investments in foreign operations. As of 31 December 2015, the positive replacement values and negative replacement values of FX derivatives (mainly FX swaps) designated as hedging instruments in net investment hedge accounting relationships were CHF 170 million and CHF 79 million, respectively (31 December 2014: positive replacement values of CHF 158 million and negative replacement values of CHF 305 million). As of 31 December 2015, the underlying hedged structural exposures in several currencies amounted to CHF 5.5 billion (31 December 2014: CHF 8.0 billion).

Hedges of structural FX exposures in currencies other than the US dollar may be comprised of two jointly designated derivatives as the foreign currency risk may be hedged against the US dollar first and then converted into Swiss francs, the presentation currency of UBS AG, as part of a separate FX derivative transaction. The aggregated notional amount of designated hedging derivatives as of 31 December 2015 was CHF 11.2 billion in total (31 December 2014: CHF 14.7 billion) including CHF 5.6 billion notional values related to US dollar versus Swiss franc swaps and CHF 5.6 billion notional values related to derivatives hedging foreign currencies (other than the US dollar) versus the US dollar. The effective portion of gains and losses of these FX swaps is transferred directly to OCI to offset foreign currency translation (FCT) gains and losses on the net investments in foreign branches and subsidiaries. As such, these FX swaps hedge the structural FX exposure resulting in the accumulation of FCT on the level of individual foreign branches and subsidiaries and hence on the total FCT OCI of UBS AG.

UBS AG designates certain non-derivative foreign currency financial assets and liabilities of foreign branches or subsidiaries as hedging instruments in net investment hedge accounting arrangements. The FX translation difference recorded in FCT OCI of the non-derivative hedging instrument of one foreign entity offsets the structural FX exposure of another foreign entity. Therefore, the aggregated FCT OCI of UBS AG is unchanged from this hedge designation. As of 31 December 2015, the nominal amount of non-derivative financial assets and liabilities designated as hedging instruments in such net investment hedges was CHF 3.1 billion and CHF 3.1 billion, respectively (31 December 2014: CHF 14.3 billion non-derivative financial assets and CHF 14.3 billion non-derivative financial liabilities).

Ineffectiveness of hedges of net investments in foreign operations was not material in 2015, 2014 and 2013.

### Undiscounted cash flows

The table below provides undiscounted cash flows of all derivative instruments designated in hedge accounting relationships. Interest rate swap cash flows include cash inflows and cash outflows of all interest rate swaps designated in hedge accounting relationships, which are either assets or liabilities of UBS AG as of 31 December 2015. The table includes derivatives traded on an exchange or through a clearing house where the change in fair value is settled each day, either in fact or in substance, through cash payment of variation margin.

**Derivatives designated in hedge accounting relationships (undiscounted cash flows)**

| CHF billion | On demand | Due within 1 month | Due between 1 and 3 months | Due between 3 and 12 months | Due between 1 and 5 years | Due after 5 years | Total |
|---|---|---|---|---|---|---|---|
| **Interest rate swaps**[1] | | | | | | | |
| Cash inflows | 0 | 0 | 0 | 2 | 4 | 2 | 8 |
| Cash outflows | 0 | 0 | 0 | 1 | 3 | 1 | 5 |
| **FX swaps / forwards** | | | | | | | |
| Cash inflows | 0 | 7 | 3 | 0 | 0 | 0 | 10 |
| Cash outflows | 0 | 7 | 3 | 0 | 0 | 0 | 10 |
| **Net cash flows** | **0** | **0** | **0** | **1** | **2** | **0** | **3** |

1 The table includes gross cash inflows and cash outflows of all interest rate swaps designated in hedge accounting relationships, which are either assets or liabilities of UBS as of 31 December 2015.

## Note 15 Financial investments available-for-sale

| *CHF million* | 31.12.15 | 31.12.14 |
|---|---|---|
| **Financial investments available-for-sale by issuer type[1]** | | |
| **Debt instruments** | | |
| Government and government agencies | 47,245 | 45,334 |
| *of which: Switzerland* | *702* | *43* |
| *of which: USA* | *21,424* | *17,219* |
| *of which: Germany* | *8,583* | *10,145* |
| *of which: France* | *3,566* | *5,351* |
| *of which: Netherlands* | *2,934* | *2,528* |
| *of which: United Kingdom* | *2,782* | *2,348* |
| Banks | 12,268 | 8,490 |
| Corporates and other | 2,385 | 2,670 |
| **Total debt instruments** | 61,898 | 56,494 |
| **Equity instruments** | 645 | 664 |
| **Total financial investments available-for-sale** | 62,543 | 57,159 |
| Unrealized gains – before tax | 462 | 430 |
| Unrealized (losses) – before tax | (171) | (64) |
| **Net unrealized gains / (losses) – before tax** | 291 | 365 |
| **Net unrealized gains / (losses) – after tax** | 167 | 238 |

1 Refer to Note 24e for more information on product type and fair value hierarchy categorization.

## Note 16 Property, equipment and software

### At historical cost less accumulated depreciation

| CHF million | Own-used properties | Leasehold improvements | IT hardware and communication | Internally generated software | Purchased software | Other machines and equipment | Projects in progress | 31.12.15 | 31.12.14 |
|---|---|---|---|---|---|---|---|---|---|
| **Historical cost** | | | | | | | | | |
| Balance at the beginning of the year | 7,756 | 3,060 | 2,377 | 1,525 | 536 | 847 | 1,341 | 17,442 | 16,136 |
| Additions | 68 | 47 | 262 | 26 | 85 | 26 | 1,331 | 1,846 | 1,690 |
| Disposals / write-offs[1] | (181) | (97) | (750) | (54) | (210) | (30) | 0 | (1,322) | (518) |
| Reclassifications | 220 | 194 | 21 | 888 | 9 | 27 | (1,394) | (35)[6] | (359) |
| Foreign currency translation | 0 | (36) | (39) | (9) | (9) | (8) | (7) | (108) | 493 |
| Balance at the end of the year | 7,863 | 3,169 | 1,872 | 2,375 | 411 | 862 | 1,270 | 17,823 | 17,442 |
| **Accumulated depreciation** | | | | | | | | | |
| Balance at the beginning of the year | 4,365 | 2,120 | 1,976 | 1,089 | 452 | 592 | 0 | 10,593 | 10,140 |
| Depreciation | 161 | 180 | 227 | 230 | 41 | 62 | 0 | 901 | 799 |
| Impairment[2] | 2 | 10 | 1 | 3 | 0 | 1 | 0 | 18 | 19 |
| Disposals / write-offs[1] | (157) | (81) | (748) | (46) | (209) | (29) | 0 | (1,270) | (474) |
| Reclassifications | (11) | 1 | (2) | 0 | 2 | (14) | 0 | (25)[6] | (217) |
| Foreign currency translation | (3) | (25) | (35) | (1) | (8) | (6) | 0 | (77) | 326 |
| Balance at the end of the year | 4,356 | 2,206 | 1,420 | 1,275 | 276 | 606 | 0 | 10,140 | 10,593 |
| **Net book value at the end of the year[3,4]** | **3,506** | **963** | **452** | **1,100** | **135** | **256** | **1,270[5]** | **7,683** | **6,849[7]** |

1 Includes write-offs of fully depreciated assets. 2 Impairment charges recorded in 2015 relate to assets for which the recoverable amount was determined based on value-in-use (recoverable amount of the impaired assets: CHF 0 million Leasehold improvements, CHF 2 million Internally generated software). 3 As of 31 December 2015, contractual commitments to purchase property in the future amounted to approximately CHF 0.6 billion. 4 Includes CHF 47 million related to leased assets, mainly IT hardware and communication. 5 Includes CHF 928 million related to Internally generated software, CHF 86 million related to Own-used properties and CHF 257 million related to Leasehold improvements. 6 Reflects reclassifications to Properties held-for-sale (CHF 11 million on a net basis) reported within Other assets. 7 Excludes investment properties of CHF 5 million.

## Note 17 Goodwill and intangible assets

### Introduction

UBS AG performs an impairment test on its goodwill assets on an annual basis, or when indicators of impairment exist. UBS AG considers the segments, as reported in Note 2, as separate cash-generating units (CGU). The impairment test is performed for each segment to which goodwill is allocated by comparing the recoverable amount, based on its value-in-use, to the carrying amount of the respective segment. An impairment charge is recognized if the carrying amount exceeds the recoverable amount. As of 31 December 2015, total goodwill recognized on the balance sheet was CHF 6.2 billion, of which CHF 1.3 billion, CHF 3.5 billion and CHF 1.4 billion was carried by Wealth Management, Wealth Management Americas and Asset Management, respectively. Based on the impairment testing methodology described below, UBS AG concluded that the goodwill balances as of 31 December 2015 allocated to these segments remain recoverable and thus were not impaired.

### Methodology for goodwill impairment testing

The recoverable amounts are determined using a discounted cash flow model, which has been adapted to use inputs that consider features of the banking business and its regulatory environment. The recoverable amount of a segment is the sum of the discounted earnings attributable to shareholders from the first three forecasted years and the terminal value. The terminal value, which covers all periods beyond the third year, is calculated on the basis of the forecast of third-year profit, the discount rate and the long-term growth rate and is adjusted for the effect of the capital assumed to be needed to support the perpetual growth implied by the long-term growth rate.

The carrying amount for each segment is determined by reference to the Group's equity attribution framework. Within this framework, which is described in the "Capital management" section of this report, the Board of Directors (BoD) attributes equity to the businesses after considering their risk exposure, risk-weighted assets and leverage ratio denominator usage, goodwill and intangible assets. The total amount of equity attributed to the business divisions can differ from UBS AG's actual equity during a given period. The framework is primarily used for purposes of measuring the performance of the businesses and includes certain management assumptions. Attributed equity equals the capital that a segment requires to conduct its business and is considered an appropriate starting point from which to determine the carrying value of the segments. The attributed equity methodology is aligned with the business planning process, the inputs from which are used in calculating the recoverable amounts of the respective CGU.

**➔ Refer to the "Capital management" section of this report for more information on the equity attribution framework**

### Assumptions

Valuation parameters used within UBS AG's impairment test model are linked to external market information, where applicable. The model used to determine the recoverable amount is most sensitive to changes in the forecast earnings available to shareholders in years one to three, to changes in the discount rates, and to changes in the long-term growth rate. The applied long-term growth rate is based on long-term economic growth rates for different regions worldwide. Earnings available to shareholders are estimated based on forecast results, which are part of the business plan approved by the BoD.

The discount rates are determined by applying a capital-asset-pricing-model-based approach, as well as considering quantitative and qualitative inputs from both internal and external analysts and the view of management. The discount rates were unchanged between 2014 and 2015.

Key assumptions used to determine the recoverable amounts of each segment are tested for sensitivity by applying a reasonably possible change to those assumptions. Forecast earnings available to shareholders were changed by 10%, the discount rates were changed by 1.0 percentage point and the long-term growth rates were changed by 0.5 percentage point. Under all scenarios, the recoverable amounts for each segment exceeded the respective carrying amount, such that the reasonably possible changes in key assumptions would not result in impairment.

If the estimated earnings and other assumptions in future periods deviate from the current outlook, the value of goodwill may become impaired in the future, giving rise to losses in the income statement. Recognition of any impairment of goodwill would reduce IFRS equity and net profit. It would not impact cash flows and, as goodwill is required to be deducted from capital under the Basel capital framework, no impact would be expected on UBS AG's total capital ratios.

## Note 17 Goodwill and intangible assets (continued)

### Discount and growth rates

| | Discount rates | | Growth rates | |
|---|---|---|---|---|
| *In %* | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| Wealth Management | **9.0** | 9.0 | **1.7** | 1.7 |
| Wealth Management Americas | **9.0** | 9.0 | **2.4** | 2.4 |
| Investment Bank | **11.0** | 11.0 | **2.4** | 2.4 |
| Asset Management | **9.0** | 9.0 | **2.4** | 2.4 |

| | Goodwill | Intangible assets | | | | |
|---|---|---|---|---|---|---|
| *CHF million* | Total | Infrastructure | Customer relationships, contractual rights and other | Total | **31.12.15** | 31.12.14 |
| **Historical cost** | | | | | | |
| Balance at the beginning of the year | 6,368 | 756 | 833 | 1,589 | **7,957** | 7,283 |
| Additions | | | 30 | 30 | **30** | 17 |
| Disposals | (30) | | (1) | (1) | **(32)** | (1) |
| Write-offs | | | (20) | (20) | **(20)** | 0 |
| Foreign currency translation | (97) | 5 | (22) | (16) | **(114)** | 657 |
| Balance at the end of the year | 6,240 | 761 | 820 | 1,581 | **7,821** | 7,957 |
| **Accumulated amortization and impairment** | | | | | | |
| Balance at the beginning of the year | 0 | 536 | 635 | 1,171 | **1,171** | 990 |
| Amortization | | 37 | 57 | 94 | **94** | 80 |
| Impairment[1] | | | 13 | 13 | **13** | 2 |
| Disposals | | | (1) | (1) | **(1)** | 0 |
| Write-offs | | | (20) | (20) | **(20)** | 0 |
| Foreign currency translation | | 5 | (10) | (5) | **(5)** | 99 |
| Balance at the end of the year | 0 | 578 | 675 | 1,253 | **1,253** | 1,171 |
| **Net book value at the end of the year** | 6,240 | 183 | 145 | 328 | **6,568** | 6,785 |

1 Impairment charges recorded in 2015 and 2014 relate to assets for which the recoverable amount was determined based on value-in-use (recoverable amount of the impaired assets: CHF 4 million for 2015 and CHF 3 million for 2014).

The table below presents the disclosure of goodwill and intangible assets by segment for the year ended 31 December 2015.

| *CHF million* | Wealth Management | Wealth Management Americas | Investment Bank | Asset Management | Corporate Center – Services | Total |
|---|---|---|---|---|---|---|
| **Goodwill** | | | | | | |
| Balance at the beginning of the year | 1,359 | 3,490 | 44 | 1,476 | | 6,368 |
| Additions | | | | | | 0 |
| Disposals | (7) | | | (23) | | (30) |
| Impairment | | | | | | 0 |
| Foreign currency translation | (40) | 25 | (14) | (68) | | (97) |
| **Balance at the end of the year** | **1,312** | **3,514** | **29** | **1,385** | | **6,240** |
| **Intangible assets** | | | | | | |
| Balance at the beginning of the year | 45 | 246 | 84 | 17 | 25 | 417 |
| Additions / transfers | | 4 | 0 | | 25 | 30 |
| Disposals | | | 0 | | | 0 |
| Amortization | (3) | (51) | (13) | (5) | (21) | (94) |
| Impairment | | | (11) | (2) | | (13) |
| Foreign currency translation | (4) | 0 | (6) | (1) | | (12) |
| **Balance at the end of the year** | **38** | **199** | **53** | **8** | **30** | **328** |

## Note 17 Goodwill and intangible assets (continued)

The estimated, aggregated amortization expenses for intangible assets are as follows:

| *CHF million* | Intangible assets |
|---|---|
| **Estimated, aggregated amortization expenses for:** | |
| 2016 | 93 |
| 2017 | 66 |
| 2018 | 56 |
| 2019 | 45 |
| 2020 | 37 |
| Thereafter | 23 |
| Not amortized due to indefinite useful life | 9 |
| **Total** | 328 |

## Note 18 Other assets

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Prime brokerage receivables[1] | **11,341** | 12,534 |
| Recruitment loans to financial advisors | **3,184** | 2,909 |
| Other loans to financial advisors | **418** | 372 |
| Bail deposit[2] | **1,221** | 1,323 |
| Accrued interest income | **462** | 453 |
| Accrued income – other | **844** | 1,009 |
| Prepaid expenses | **1,032** | 1,027 |
| Net defined benefit pension and post-employment assets[3] | **50** | 0 |
| Settlement and clearing accounts | **402** | 616 |
| VAT and other tax receivables | **397** | 272 |
| Properties and other non-current assets held for sale | **134** | 236 |
| Assets of disposal group held for sale[4] | **279** | 0 |
| Other | **2,485** | 2,317 |
| **Total other assets** | **22,249** | 23,069 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage receivables are mainly comprised of margin lending receivables. 2 Refer to item 1 in Note 22b for more information. 3 Refer to Note 28 for more information. 4 Refer to Note 32 for more information.

# Balance sheet notes: liabilities

## Note 19 Due to banks and customers

| *CHF million* | 31.12.15 | 31.12.14 |
|---|---|---|
| Due to banks | 11,836 | 10,492 |
| Due to customers: demand deposits | 174,262 | 187,516 |
| Due to customers: time deposits | 60,274 | 52,269 |
| Due to customers: fiduciary deposits | 6,139 | 14,766 |
| Due to customers: retail savings / deposits | 161,848 | 156,427 |
| Total due to customers | 402,522 | 410,979 |
| Total due to banks and customers | 414,358 | 421,471 |

## Note 20 Financial liabilities designated at fair value

| *CHF million* | 31.12.15 | 31.12.14 |
|---|---|---|
| **Non-structured fixed-rate bonds** | 4,098 | 4,488 |
| *of which: issued by UBS AG with original maturity greater than one year*[1,2] | *3,542* | *3,616* |
| **Structured debt instruments issued** | | |
| Equity-linked[3] | 30,965 | 37,725 |
| Credit-linked | 3,652 | 4,645 |
| Rates-linked[4] | 16,587 | 19,380 |
| Other | 1,231 | 2,138 |
| **Total structured debt instruments issued** | 52,436 | 63,888 |
| *of which: issued by UBS AG with original maturity greater than one year*[1,5] | *36,539* | *45,851* |
| **Structured over-the-counter debt instruments** | | |
| Equity-linked[3] | 2,885 | 2,508 |
| Other | 2,608 | 3,154 |
| **Total structured over-the-counter debt instruments** | 5,493 | 5,662 |
| *of which: issued by UBS AG with original maturity greater than one year*[1,6] | *4,497* | *3,691* |
| **Repurchase agreements** | 849 | 1,167 |
| **Loan commitments and guarantees**[7] | 119 | 93 |
| **Total** | 62,995 | 75,297 |
| *of which: life-to-date own credit (gain) / loss* | *(287)* | *302* |

1 Issued by UBS AG (standalone). Based on original contractual maturity without considering any early redemption features. 2 100% of the balance as of 31 December 2015 was unsecured. 3 Includes investment fund unit-linked instruments issued. 4 Includes non-structured rates-linked debt instruments issued. 5 More than 98% of the balance as of 31 December 2015 was unsecured. 6 More than 35% of the balance as of 31 December 2015 was unsecured. 7 Loan commitments recognized as "Financial liabilities designated at fair value" until drawn and recognized as loans. See Note 1a item 8 for additional information.

As of 31 December 2015, the contractual redemption amount at maturity of *Financial liabilities designated at fair value* through profit or loss was CHF 0.1 billion higher than the carrying value. As of 31 December 2014, the contractual redemption amount at maturity of such liabilities was CHF 0.7 billion lower than the carrying value.

The table on the following page shows the residual contractual maturity of the carrying value of financial liabilities designated at fair value, split between fixed-rate and floating-rate instruments based on the contractual terms and does not consider any early redemption features. Interest rate ranges for future interest payments related to these financial liabilities designated at fair value have not been included in the table on the following page as a majority of these liabilities are structured products, and therefore the future interest payments are highly dependent upon the embedded derivative and prevailing market conditions at the time each interest payment is made.

➔ **Refer to Note 27b for maturity information on an undiscounted cash flow basis**

## Note 20 Financial liabilities designated at fair value (continued)

### Contractual maturity of carrying value

| CHF million | 2016 | 2017 | 2018 | 2019 | 2020 | 2021–2025 | Thereafter | Total 31.12.15 | Total 31.12.14 |
|---|---|---|---|---|---|---|---|---|---|
| **UBS AG**[1] | | | | | | | | | |
| Non-subordinated debt | | | | | | | | | |
| Fixed-rate | 2,873 | 1,912 | 776 | 279 | 302 | 1,623 | 2,938 | 10,702 | 12,891 |
| Floating-rate | 23,148 | 5,314 | 3,559 | 2,839 | 3,286 | 2,838 | 8,839 | 49,824 | 58,643 |
| Subtotal | 26,021 | 7,226 | 4,335 | 3,118 | 3,588 | 4,461 | 11,777 | 60,526 | 71,535 |
| **Other subsidiaries**[2] | | | | | | | | | |
| Non-subordinated debt | | | | | | | | | |
| Fixed-rate | 29 | 58 | 179 | 17 | 34 | 164 | 513 | 993 | 1,473 |
| Floating-rate | 260 | 484 | 188 | 122 | 127 | 178 | 116 | 1,475 | 2,289 |
| Subtotal | 288 | 542 | 367 | 139 | 161 | 342 | 629 | 2,469 | 3,762 |
| **Total** | 26,310 | 7,768 | 4,702 | 3,257 | 3,749 | 4,803 | 12,406 | 62,995 | 75,297 |

1 Comprises instruments issued by UBS AG (standalone). 2 Comprises instruments issued by subsidiaries of UBS AG.

## Note 21 Debt issued held at amortized cost

| CHF million | 31.12.15 | 31.12.14 |
|---|---|---|
| Certificates of deposit | 11,967 | 16,591 |
| Commercial paper | 3,824 | 4,841 |
| Other short-term debt | 5,424 | 5,931 |
| **Short-term debt**[1] | 21,215 | 27,363 |
| Non-structured fixed-rate bonds | 31,240 | 24,582 |
| *of which: issued by UBS AG with original maturity greater than one year*[2] | *31,078* | *24,433* |
| Covered bonds | 8,490 | 13,614 |
| Subordinated debt | 12,600 | 16,123 |
| *of which: phase-out additional tier 1 capital* | *0* | *1,197* |
| *of which: low-trigger loss-absorbing tier 2 capital* | *10,346* | *10,464* |
| *of which: phase-out tier 2 capital* | *2,254* | *4,462* |
| Debt issued through the central bond institutions of the Swiss regional or cantonal banks | 8,237 | 8,029 |
| Other long-term debt | 577 | 1,495 |
| *of which: issued by UBS AG with original maturity greater than one year*[2] | *278* | *861* |
| **Long-term debt**[3] | 61,144 | 63,844 |
| **Total debt issued held at amortized cost**[4] | 82,359 | 91,207 |

1 Debt with an original maturity of less than one year. 2 Issued by UBS AG (standalone). Based on original contractual maturity without considering any early redemption features. 100% of the balance as of 31 December 2015 was unsecured. 3 Debt with original maturity greater than or equal to one year. 4 Net of bifurcated embedded derivatives with a net negative fair value of CHF 130 million as of 31 December 2015 (31 December 2014: net negative fair value of CHF 25 million).

UBS AG uses interest rate and foreign exchange derivatives to manage the risks inherent in certain debt instruments held at amortized cost. In certain cases, UBS AG applies hedge accounting for interest rate risk as discussed in Note 1a item 15 and Note 14. As a result of applying hedge accounting, the carrying value of debt issued increased by CHF 1,024 million and by CHF 1,703 million as of 31 December 2015 and 2014, respectively, reflecting changes in fair value due to interest rate movements.

## Note 21 Debt issued held at amortized cost (continued)

Subordinated debt consists of unsecured debt obligations that are contractually subordinated in right of payment to all other present and future non-subordinated obligations of the respective issuing entity. All of the subordinated debt instruments outstanding as of 31 December 2015 pay a fixed rate of interest.

The table below shows the residual contractual maturity of the carrying value of debt issued, split between fixed-rate and floating-rate based on the contractual terms and does not consider any early redemption features. The effects from interest rate swaps, which are used to hedge various fixed-rate debt issuances by changing the repricing characteristics into those similar to floating-rate debt, are also not considered in the table below.

➔ **Refer to Note 27b for maturity information on an undiscounted cash flow basis**

**Contractual maturity dates of carrying value**

| *CHF million, except where indicated* | 2016 | 2017 | 2018 | 2019 | 2020 | 2021–2025 | Thereafter | **Total 31.12.15** | Total 31.12.14 |
|---|---|---|---|---|---|---|---|---|---|
| **UBS AG**[1] | | | | | | | | | |
| Non-subordinated debt | | | | | | | | | |
| Fixed-rate | 13,064 | 6,334 | 8,004 | 4,036 | 4,340 | 4,375 | 0 | **40,153** | 59,327 |
| Interest rates (range in %) | 0–6.4 | 0–5.9 | 0–6.6 | 2.4–4.0 | 0–4.9 | 1.3–4.0 | | | |
| Floating-rate | 10,014 | 3,721 | 963 | 939 | 239 | 0 | 2,031 | **17,907** | 11,296 |
| Subordinated debt | | | | | | | | | |
| Fixed-rate | 918 | 414 | 0 | 0 | 0 | 8,772 | 2,497 | **12,600** | 16,123 |
| Interest rates (range in %) | 3.1–5.9 | 4.1–7.4 | | | | 4.8–8.8 | 4.8–7.8 | | |
| Subtotal | 23,996 | 10,468 | 8,967 | 4,974 | 4,579 | 13,147 | 4,528 | **70,659** | 86,746 |
| **Subsidiaries**[2] | | | | | | | | | |
| Non-subordinated debt | | | | | | | | | |
| Fixed-rate | 3,936 | 728 | 791 | 742 | 732 | 3,592 | 1,171 | **11,692** | 4,460 |
| Interest rates (range in %) | 0–8.3 | 0.3–8.1 | 0.4–3.7 | 0.5–2.9 | 0.1–2.8 | 0–3.4 | 0.4–2.8 | | |
| Floating-rate | 0 | 0 | 7 | 0 | 0 | 0 | 0 | **8** | 1 |
| Subtotal | 3,936 | 728 | 798 | 742 | 732 | 3,593 | 1,171 | **11,700** | 4,462 |
| **Total** | 27,932 | 11,196 | 9,765 | 5,717 | 5,311 | 16,740 | 5,699 | **82,359** | 91,207 |

1 Comprises debt issued by UBS AG (standalone). 2 Comprises debt issued by subsidiaries of UBS AG.

## Note 22 Provisions and contingent liabilities

### a) Provisions

| *CHF million* | Operational risks[1] | Litigation, regulatory and similar matters[2] | Restruc-turing | Loan com-mitments and guarantees | Real estate | Employee benefits[5] | Other | **Total 31.12.15** | Total 31.12.14 |
|---|---|---|---|---|---|---|---|---|---|
| Balance at the beginning of the year | 50 | 3,053 | 647 | 23 | 153 | 215 | 224 | **4,366** | 2,971 |
| Increase in provisions recognized in the income statement | 43 | 1,263 | 361 | 6 | 27 | 7 | 71 | **1,778** | 3,308 |
| Release of provisions recognized in the income statement | (7) | (166) | (102) | (3) | (1) | (18) | (40) | **(337)** | (528) |
| Provisions used in conformity with designated purpose | (37) | (1,174) | (287) | 0 | (28) | (1) | (133) | **(1,660)** | (1,659) |
| Capitalized reinstatement costs | 0 | 0 | 0 | 0 | 5 | 0 | 0 | **5** | 0 |
| Reclassifications | 0 | 0 | 0 | 9 | 0 | 0 | 0 | **9** | 8 |
| Foreign currency translation / unwind of discount | (1) | 7 | 5 | 0 | 2 | (5) | (3) | **3** | 266 |
| **Balance at the end of the year** | 47 | 2,983 | 624[3] | 35 | 157[4] | 198 | 120 | **4,163** | 4,366 |

1 Comprises provisions for losses resulting from security risks and transaction processing risks. 2 Comprises provisions for losses resulting from legal, liability and compliance risks. 3 Includes personnel related restructuring provisions of CHF 110 million as of 31 December 2015 (31 December 2014: CHF 116 million) and provisions for onerous lease contracts of CHF 514 million as of 31 December 2015 (31 December 2014: CHF 530 million). 4 Includes reinstatement costs for leasehold improvements of CHF 94 million as of 31 December 2015 (31 December 2014: CHF 98 million) and provisions for onerous lease contracts of CHF 62 million as of 31 December 2015 (31 December 2014: CHF 55 million). 5 Includes provisions for sabbatical and anniversary awards as well as provisions for severance which are not part of restructuring provisions.

Restructuring provisions primarily relate to onerous lease contracts and severance payments. The utilization of onerous lease provisions is driven by the maturities of the underlying lease contracts. Severance-related provisions are utilized within a short time period, usually within six months, but potential changes in amount may be triggered when natural staff attrition reduces the number of people affected by a restructuring and therefore the estimated costs.

Information on provisions and contingent liabilities in respect of Litigation, regulatory and similar matters, as a class, is included in Note 22b. There are no material contingent liabilities associated with the other classes of provisions.

## Note 22 Provisions and contingent liabilities (continued)

### b) Litigation, regulatory and similar matters

UBS operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS AG and/or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties and the outcome is often difficult to predict, particularly in the earlier stages of a case. There are also situations where UBS may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which UBS believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. UBS makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that UBS has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against UBS, but are nevertheless expected to be, based on UBS's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to select matters could be significant.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter, because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases, we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

## Note 22 Provisions and contingent liabilities (continued)

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in Note 22a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require us to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, which have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although we therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, we believe that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. For example, the non-prosecution agreement (NPA) described in paragraph 5 of this Note, which we entered into with the US Department of Justice (DOJ), Criminal Division, Fraud Section in connection with our submissions of benchmark interest rates, including, among others, the British Bankers' Association London Interbank Offered Rate (LIBOR), was terminated by the DOJ based on its determination that we had committed a US crime in relation to foreign exchange matters. As a consequence, UBS AG has pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, and has agreed to pay a USD 203 million fine and accept a three-year term of probation. A guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for UBS. Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations and may permit financial market utilities to limit, suspend or terminate our participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining our capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital management" section of this report.

**Provisions for litigation, regulatory and similar matters by business division and Corporate Center unit[1]**

| *CHF million* | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | CC – Services | CC – Group ALM | CC – Non-core and Legacy Portfolio | **Total 31.12.15** | Total 31.12.14 |
|---|---|---|---|---|---|---|---|---|---|---|
| Balance at the beginning of the year | 188 | 209 | 92 | 53 | 1,258 | 312 | 0 | 941 | **3,053** | 1,622 |
| Increase in provisions recognized in the income statement | 114 | 372 | 0 | 0 | 17 | 15 | 0 | 744 | **1,263** | 2,941 |
| Release of provisions recognized in the income statement | (10) | (19) | (3) | (3) | (15) | (1) | 0 | (115) | **(166)** | (395) |
| Provisions used in conformity with designated purpose | (36) | (110) | (5) | (33) | (675) | (13) | 0 | (302) | **(1,174)** | (1,286) |
| Reclassifications | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | (2) |
| Foreign currency translation / unwind of discount | (12) | 7 | (2) | (1) | 0 | (3) | 0 | 18 | **7** | 172 |
| **Balance at the end of the year** | 245 | 459 | 83 | 16 | 585 | 310 | 0 | 1,284 | **2,983** | 3,053 |

1 Provisions, if any, for the matters described in this Note are recorded in Wealth Management (item 3), Wealth Management Americas (item 4), Corporate Center – Services (item 7) and Corporate Center – Non-core and Legacy Portfolio (items 2 and 8). Provisions, if any, for the matters described in this Note in items 1 and 6 are allocated between Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in this Note in item 5 are allocated between the Investment Bank, Corporate Center – Services and Corporate Center – Non-core and Legacy Portfolio.

**Note 22 Provisions and contingent liabilities (continued)**

1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions. It is possible that implementation of automatic tax information exchange and other measures relating to cross-border provision of financial services could give rise to further inquiries in the future.

As a result of investigations in France, in 2013, UBS (France) S.A. and UBS AG were put under formal examination ("*mise en examen*") for complicity in having illicitly solicited clients on French territory, and were declared witness with legal assistance ("*témoin assisté*") regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons. In 2014, UBS AG was placed under formal examination with respect to the potential charges of laundering of proceeds of tax fraud, and the investigating judges ordered UBS to provide bail ("*caution*") of EUR 1.1 billion. UBS AG appealed the determination of the bail amount, but both the appeal court ("*Cour d'Appel*") and the French Supreme Court ("*Cour de Cassation")* upheld the bail amount and rejected the appeal in full in late 2014. UBS AG has filed and has had accepted a petition to the European Court of Human Rights to challenge various aspects of the French court's decision. In September 2015, the former CEO of UBS Wealth Management was placed under formal examination in connection with these proceedings. In addition, the investigating judges have sought to issue arrest warrants against three Swiss-based former employees of UBS AG who did not appear when summoned by the investigating judge. In February 2016, the investigating judge notified UBS that he does not intend to conduct further investigation. This notification commences a period in which the prosecutor may file a request for a judge to issue formal charges.

In March 2015, UBS (France) S.A. was placed under formal examination for complicity regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons for the years 2004 until 2008 and declared witness with legal assistance for the years 2009 to 2012. A bail of EUR 40 million was imposed, and was reduced by the Court of Appeals in May 2015 to EUR 10 million. Separately, in 2013, the French banking supervisory authority's disciplinary commission reprimanded UBS (France) S.A. for having had insufficiencies in its control and compliance framework around its cross-border activities and know your customer obligations. It imposed a penalty of EUR 10 million, which was paid.

UBS AG has been notified by the Brussels public prosecutor's office that it is investigating various aspects of UBS's cross-border business.

In January 2015, UBS received inquiries from the US Attorney's Office for the Eastern District of New York and from the US Securities and Exchange Commission (SEC), which are investigating potential sales to US persons of bearer bonds and other unregistered securities in possible violation of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and the registration requirements of the US securities laws. UBS is cooperating with the authorities in these investigations.

UBS has, and reportedly numerous other financial institutions have, received inquiries from authorities concerning accounts relating to the Fédération Internationale de Football Association (FIFA) and other constituent soccer associations and related persons and entities. UBS is cooperating with authorities in these inquiries.

Our balance sheet at 31 December 2015 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information, and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages. A subsidiary of UBS, UBS Real Estate Securities Inc. (UBS RESI), acquired pools of residential mortgage loans from originators and (through an affiliate) deposited them into securitization trusts. In this manner, from 2004 through 2007, UBS RESI sponsored approximately USD 80 billion in RMBS, based on the original principal balances of the securities issued.

UBS RESI also sold pools of loans acquired from originators to third-party purchasers. These whole loan sales during the period 2004 through 2007 totaled approximately USD 19 billion in original principal balance.

We were not a significant originator of US residential loans. A subsidiary of UBS originated approximately USD 1.5 billion in US residential mortgage loans during the period in which it was active from 2006 to 2008, and securitized less than half of these loans.

**Note 22 Provisions and contingent liabilities (continued)**

*RMBS-related lawsuits concerning disclosures:* UBS is named as a defendant relating to its role as underwriter and issuer of RMBS in lawsuits related to approximately USD 6.2 billion in original face amount of RMBS underwritten or issued by UBS. Of the USD 6.2 billion in original face amount of RMBS that remains at issue in these cases, approximately USD 3.2 billion was issued in offerings in which a UBS subsidiary transferred underlying loans (the majority of which were purchased from third-party originators) into a securitization trust and made representations and warranties about those loans (UBS-sponsored RMBS). The remaining USD 3 billion of RMBS to which these cases relate was issued by third parties in securitizations in which UBS acted as underwriter (third-party RMBS).

In connection with certain of these lawsuits, UBS has indemnification rights against surviving third-party issuers or originators for losses or liabilities incurred by UBS, but UBS cannot predict the extent to which it will succeed in enforcing those rights.

UBS is a defendant in two lawsuits brought by the National Credit Union Administration (NCUA), as conservator for certain failed credit unions, asserting misstatements and omissions in the offering documents for RMBS purchased by the credit unions. Both lawsuits were filed in US District Courts, one in the District of Kansas and the other in the Southern District of New York (SDNY). The original principal balance at issue in the Kansas case is approximately USD 1.15 billion and the original principal balance at issue in the SDNY case is approximately USD 400 million. In February 2016, UBS made an offer of judgment to NCUA in the SDNY case, which NCUA has accepted, pursuant to which UBS will pay USD 33 million plus an amount of prejudgment interest that will be determined by the court and reasonable attorneys' fees. Once these amounts are determined and judgment is entered, the SDNY case will end. Prejudgment interest and attorneys' fees are expected to significantly increase the total amount to be paid in the SDNY case.

*Lawsuits related to contractual representations and warranties concerning mortgages and RMBS:* When UBS acted as an RMBS sponsor or mortgage seller, we generally made certain representations relating to the characteristics of the underlying loans. In the event of a material breach of these representations, we were in certain circumstances contractually obligated to repurchase the loans to which the representations related or to indemnify certain parties against losses. UBS has received demands to repurchase US residential mortgage loans as to which UBS made certain representations at the time the loans were transferred to the securitization trust aggregating approximately USD 4.1 billion in original principal balance. Of this amount, UBS considers claims relating to approximately USD 2 billion in original principal balance to be resolved, including claims barred by the statute of limitations. Substantially all of the remaining claims are in litigation, including the matters described in the next paragraph. UBS believes that new demands to repurchase US residential mortgage loans are time-barred under a decision rendered by the New York Court of Appeals.

In 2012, certain RMBS trusts filed an action (Trustee Suit) in the SDNY seeking to enforce UBS RESI's obligation to repurchase loans in the collateral pools for three RMBS securitizations (Transactions) with an original principal balance of approximately USD 2 billion, for which Assured Guaranty Municipal Corp. (Assured Guaranty), a financial guaranty insurance company, had previously demanded repurchase. In January 2015, the court rejected plaintiffs' efforts to seek damages for all loans purportedly in breach of representations and warranties in any of the three Transactions and limited plaintiffs to pursuing claims based solely on alleged breaches for loans identified in the complaint or other breaches that plaintiffs can establish were independently discovered by UBS. In February 2015, the court denied plaintiffs' motion seeking reconsideration of its ruling. With respect to the loans subject to the Trustee Suit that were originated by institutions still in existence, UBS intends to enforce its indemnity rights against those institutions. Trial is currently scheduled for April 2016.

We also have tolling agreements with certain institutional purchasers of RMBS concerning their potential claims related to substantial purchases of UBS-sponsored or third-party RMBS.

## Note 22 Provisions and contingent liabilities (continued)

**Provision for claims related to sales of residential mortgage-backed securities and mortgages**

| *USD million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Balance at the beginning of the year | **849** | 817 |
| Increase in provision recognized in the income statement | **662** | 239 |
| Release of provision recognized in the income statement | **(94)** | (120) |
| Provision used in conformity with designated purpose | **(199)** | (87) |
| **Balance at the end of the year** | **1,218** | 849 |

*Mortgage-related regulatory matters:* In 2014, UBS received a subpoena from the US Attorney's Office for the Eastern District of New York issued pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), which seeks documents and information related to UBS's RMBS business from 2005 through 2007. In September 2015, the Eastern District of New York identified a number of transactions that are currently the focus of their inquiry, as to which we are providing additional information. UBS continues to respond to the FIRREA subpoena and to subpoenas from the New York State Attorney General (NYAG) relating to its RMBS business. In addition, UBS has also been responding to inquiries from both the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) (who is working in conjunction with the US Attorney's Office for Connecticut and the DOJ) and the SEC relating to trading practices in connection with purchases and sales of mortgage-backed securities in the secondary market from 2009 through the present. We are cooperating with the authorities in these matters. Numerous other banks reportedly are responding to similar inquiries from these authorities.

As reflected in the table "Provision for claims related to sales of residential mortgage-backed securities and mortgages," our balance sheet at 31 December 2015 reflected a provision of USD 1,218 million with respect to matters described in this item 2. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information, and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

**Note 22 Provisions and contingent liabilities (continued)**

3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) SA and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier (CSSF). Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds now face severe losses, and the Luxembourg funds are in liquidation. The last reported net asset value of the two Luxembourg funds before revelation of the Madoff scheme was approximately USD 1.7 billion in the aggregate, although that figure likely includes fictitious profit reported by BMIS. The documentation establishing both funds identifies UBS entities in various roles including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members. UBS (Luxembourg) SA and certain other UBS subsidiaries are responding to inquiries by Luxembourg investigating authorities, without, however, being named as parties in those investigations. In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims on behalf of the funds against UBS entities, non-UBS entities and certain individuals including current and former UBS employees. The amounts claimed are approximately EUR 890 million and EUR 305 million, respectively. The liquidators have filed supplementary claims for amounts that the funds may possibly be held liable to pay the BMIS Trustee. These amounts claimed by the liquidator are approximately EUR 564 million and EUR 370 million, respectively. In addition, a large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff scheme. The majority of these cases are pending in Luxembourg, where appeals were filed by the claimants against the 2010 decisions of the court in which the claims in a number of test cases were held to be inadmissible. In July 2014, the Luxembourg Court of Appeal dismissed one test appeal in its entirety, which decision was appealed by the investor. In July 2015, the Luxembourg Supreme Court found in favor of UBS and dismissed the investor's appeal. In the US, the BMIS Trustee filed claims in 2010 against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2 billion. Following a motion by UBS, in 2011, the SDNY dismissed all of the BMIS Trustee's claims other than claims for recovery of fraudulent conveyances and preference payments that were allegedly transferred to UBS on the ground that the BMIS Trustee lacks standing to bring such claims. In 2013, the Second Circuit affirmed the District Court's decision and, in June 2014, the US Supreme Court denied the BMIS Trustee's petition seeking review of the Second Circuit ruling. In December 2014, several claims, including a purported class action, were filed in the US by BMIS customers against UBS entities, asserting claims similar to the ones made by the BMIS Trustee, seeking unspecified damages. One claim was voluntarily withdrawn by the plaintiff. In July 2015, following a motion by UBS, the SDNY dismissed the two remaining claims on the basis that the New York courts did not have jurisdiction to hear the claims against the UBS entities. In Germany, certain clients of UBS are exposed to Madoff-managed positions through third-party funds and funds administered by UBS entities in Germany. A small number of claims have been filed with respect to such funds. In January 2015, a court of appeal reversed a lower court decision in favor of UBS in one such case and ordered UBS to pay EUR 49 million, plus interest (approximately EUR 15.3 million). UBS filed an application for leave to appeal the decision. That application was rejected by the German Federal Supreme Court in December 2015, meaning that the Court of Appeal's decision is final.

**Note 22 Provisions and contingent liabilities (continued)**

4. Puerto Rico

Declines since August 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (the funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) have led to multiple regulatory inquiries, as well as customer complaints and arbitrations with aggregate claimed damages of USD 1.6 billion, of which claims with aggregate claimed damages of approximately USD 374 million have been resolved through settlements or arbitration. The claims are filed by clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and/or who used their UBS account assets as collateral for UBS non-purpose loans; customer complaint and arbitration allegations include fraud, misrepresentation and unsuitability of the funds and of the loans. A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions in losses in the funds. In 2015, defendants' motion to dismiss was denied. Defendants are seeking leave to appeal that ruling to the Puerto Rico Supreme Court. In 2014, a federal class action complaint also was filed against various UBS entities, certain members of UBS PR senior management, and the co-manager of certain of the funds seeking damages for investor losses in the funds during the period from May 2008 through May 2014. Defendants have moved to dismiss that complaint. In March 2015, a class action was filed in Puerto Rico state court against UBS PR seeking equitable relief in the form of a stay of any effort by UBS PR to collect on non-purpose loans it acquired from UBS Bank USA in December 2013 based on plaintiffs' allegation that the loans are not valid.

In 2014, UBS reached a settlement with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico (OCFI) in connection with OCFI's examination of UBS's operations from January 2006 through September 2013. Pursuant to the settlement, UBS contributed USD 3.5 million to an investor education fund, offered USD 1.68 million in restitution to certain investors and, among other things, committed to undertake an additional review of certain client accounts to determine if additional restitution would be appropriate. That review resulted in an additional USD 2.1 million in restitution being offered to certain investors.

In September 2015, the SEC and the Financial Industry Regulatory Authority (FINRA) announced settlements with UBS PR of their separate investigations stemming from the 2013 market events. Without admitting or denying the findings in either matter, UBS PR agreed in the SEC settlement to pay USD 15 million (which includes USD 1.18 million in disgorgement, a civil penalty of USD 13.63 million and pre-judgment interest), and USD 18.5 million in the FINRA matter (which includes up to USD 11 million in restitution to 165 UBS PR customers and a civil penalty of USD 7.5 million). The SEC settlement involves a charge against UBS PR of failing to supervise the activities of a former financial advisor who had recommended the impermissible investment of non-purpose loan proceeds into the UBS PR closed-end funds, in violation of firm policy and the customer loan agreements. In the FINRA settlement, UBS PR is alleged to have failed to supervise certain customer accounts which were both more than 75% invested in UBS PR closed-end funds and leveraged against those positions. We also understand that the DOJ is conducting a criminal inquiry into the impermissible reinvestment of non-purpose loan proceeds. We are cooperating with the authorities in this inquiry.

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR and other consultants and underwriters, trustees of the System, and the President and Board of the Government Development Bank of Puerto Rico. The plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of approximately USD 3 billion of bonds by the System in 2008 and sought damages of over USD 800 million. UBS is named in connection with its underwriting and consulting services. In 2013, the case was dismissed by the Puerto Rico Court of First Instance on the grounds that plaintiffs did not have standing to bring the claim, but that dismissal was subsequently overturned on appeal. Defendants have renewed their motion to dismiss the complaint on grounds not addressed when the court issued its prior ruling.

Also, in 2013, an SEC Administrative Law Judge dismissed a case brought by the SEC against two UBS executives, finding no violations. The charges had stemmed from the SEC's investigation of UBS's sale of closed-end funds in 2008 and 2009, which UBS settled in 2012. Beginning in 2012, two federal class action complaints, which were subsequently consolidated, were filed against various UBS entities, certain of the funds, and certain members of UBS PR senior management, seeking damages for investor losses in the funds during the period from January 2008 through May 2012 based on allegations similar to those in the SEC action. A motion for class certification was denied without prejudice to the right to refile the motion after limited discovery, and that motion has since been refiled.

**Note 22 Provisions and contingent liabilities (continued)**

In June 2015 Puerto Rico's Governor stated that the Commonwealth is unable to meet its obligations. In addition, certain agencies and public corporations of the Commonwealth have held discussions with their creditors to restructure their outstanding debt, and certain agencies and public corporations of the Commonwealth have defaulted on certain interest payments that were due in August 2015 and January 2016. The United States Supreme Court has agreed to hear Puerto Rico's appeal of a US District Court's invalidation of the Puerto Rico Public Corporations Debt Enforcement and Recovery Act (the Act), under which Puerto Rico's public corporations would be permitted to effect a mandatory restructuring of their respective debts with a specified creditor vote that would be binding on all applicable creditors, once approved by a court or, alternatively, under a court-supervised bankruptcy type restructuring. The foregoing events, any further defaults by the Commonwealth or its agencies and public corporations on (or any debt restructurings proposed by them with respect to) their outstanding debt, a Supreme Court decision upholding the Act (or sending it back to the District Court for further proceedings) and any further actions taken by Puerto Rico's public corporations under the Act, as well as any market reactions to any of the foregoing, may increase the number of claims against UBS concerning Puerto Rico securities as well as potential damages sought.

Our balance sheet at 31 December 2015 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information, and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

### 5. Foreign exchange, LIBOR, and benchmark rates, and other trading practices

*Foreign exchange-related regulatory matters*: Following an initial media report in 2013 of widespread irregularities in the foreign exchange markets, UBS immediately commenced an internal review of its foreign exchange business, which includes our precious metals and related structured products businesses. Since then, various authorities have commenced investigations concerning possible manipulation of foreign exchange markets, including FINMA, the Swiss Competition Commission (WEKO), the DOJ, the SEC, the US Commodity Futures Trading Commission (CFTC), the Board of Governors of the Federal Reserve System (Federal Reserve Board), the UK Financial Conduct Authority (FCA) (to which certain responsibilities of the UK Financial Services Authority (FSA) have passed), the UK Serious Fraud Office (SFO), the Australian Securities and Investments Commission (ASIC), the Hong Kong Monetary Authority (HKMA), the Korea Fair Trade Commission (KFTC) and the Brazil Competition Authority (CADE). In addition, WEKO is, and a number of other authorities reportedly are, investigating potential manipulation of precious metals prices. UBS has taken and will take appropriate action with respect to certain personnel as a result of its ongoing review.

In 2014, UBS reached settlements with the FCA and the CFTC in connection with their foreign exchange investigations, and FINMA issued an order concluding its formal proceedings with respect to UBS relating to its foreign exchange and precious metals businesses. UBS has paid a total of approximately CHF 774 million to these authorities, including GBP 234 million in fines to the FCA, USD 290 million in fines to the CFTC, and CHF 134 million to FINMA representing confiscation of costs avoided and profits. In May 2015, the Federal Reserve Board and the Connecticut Department of Banking issued an Order to Cease and Desist and Order of Assessment of a Civil Monetary Penalty Issued upon Consent (Federal Reserve Order) to UBS AG. As part of the Federal Reserve Order, UBS AG paid a USD 342 million civil monetary penalty.

**Note 22 Provisions and contingent liabilities (continued)**

In May 2015, the DOJ's Criminal Division (Criminal Division) terminated the December 2012 Non-Prosecution Agreement (NPA) with UBS AG related to UBS's submissions of benchmark interest rates. As a result, UBS AG entered into a plea agreement with the Criminal Division pursuant to which UBS AG agreed to and did plead guilty to a one-count criminal information filed in the US District Court for the District of Connecticut charging UBS AG with one count of wire fraud in violation of 18 USC Sections 1343 and 2. Under the plea agreement, UBS AG agreed to a sentence that includes a USD 203 million fine and a three-year term of probation. The criminal information charges that between approximately 2001 and 2010, UBS AG engaged in a scheme to defraud counterparties to interest rate derivatives transactions by manipulating benchmark interest rates, including Yen LIBOR. Sentencing is currently scheduled for 9 May 2016. The Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA, including fraudulent and deceptive currency trading and sales practices in conducting certain foreign exchange market transactions with clients and collusion with other participants in certain foreign exchange markets.

We have ongoing obligations to cooperate with these authorities and to undertake certain remediation, including actions to improve processes and controls.

UBS has been granted conditional immunity by the Antitrust Division of the DOJ (Antitrust Division) from prosecution for EUR/USD collusion and entered into a non-prosecution agreement covering other currency pairs. As a result, UBS AG will not be subject to prosecutions, fines or other sanctions for antitrust law violations by the Antitrust Division, subject to UBS AG's continuing cooperation. However, the conditional immunity grant does not bar government agencies from asserting other claims and imposing sanctions against UBS AG, as evidenced by the settlements and ongoing investigations referred to above. UBS has also been granted conditional leniency by authorities in certain jurisdictions, including WEKO, in connection with potential competition law violations relating to precious metals, and as a result, will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in those jurisdictions, subject to UBS AG's continuing cooperation.

In October 2015, UBS AG settled charges with the SEC relating to structured notes issued by UBS AG that were linked to the UBS V10 Currency Index with Volatility Cap.

Investigations relating to foreign exchange and precious metals matters by numerous authorities, including the CFTC, remain ongoing notwithstanding these resolutions.

*Foreign exchange-related civil litigation:* Putative class actions have been filed since November 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. They allege collusion by the defendants and assert claims under the antitrust laws and for unjust enrichment. In 2015, additional putative class actions were filed in federal court in New York against UBS and other banks on behalf of a putative class of persons who entered into or held any foreign exchange futures contracts and options on foreign exchange futures contracts since 1 January 2003. The complaints assert claims under the Commodity Exchange Act (CEA) and the US antitrust laws. In July 2015, a consolidated complaint was filed on behalf of both putative classes of persons covered by the US federal court class actions described above. UBS has entered into a settlement agreement that would resolve all of these US federal court class actions. The agreement, which has been preliminarily approved by the court and is subject to final court approval, requires, among other things, that UBS pay an aggregate of USD 141 million and provide cooperation to the settlement classes.

**Note 22 Provisions and contingent liabilities (continued)**

In June 2015, a putative class action was filed in federal court in New York against UBS and other banks on behalf of participants, beneficiaries, and named fiduciaries of plans qualified under the Employee Retirement Income Security Act of 1974 (ERISA) for whom a defendant bank provided foreign currency exchange transactional services, exercised discretionary authority or discretionary control over management of such ERISA plan, or authorized or permitted the execution of any foreign currency exchange transactional services involving such plan's assets. The complaint asserts claims under ERISA.

In 2015, UBS was added to putative class actions pending against other banks in federal court in New York and other jurisdictions on behalf of putative classes of persons who bought or sold physical precious metals and various precious metal products and derivatives. The complaints in these lawsuits assert claims under the antitrust laws and the CEA, and other claims.

*LIBOR and other benchmark-related regulatory matters*: Numerous government agencies, including the SEC, the CFTC, the DOJ, the FCA, the SFO, the Monetary Authority of Singapore (MAS), the HKMA, FINMA, the various state attorneys general in the US, and competition authorities in various jurisdictions have conducted or are continuing to conduct investigations regarding submissions with respect to LIBOR and other benchmark rates. These investigations focus on whether there were improper attempts by UBS, among others, either acting on our own or together with others, to manipulate LIBOR and other benchmark rates at certain times.

In 2012, UBS reached settlements with the FSA, the CFTC and the Criminal Division of the DOJ in connection with their investigations of benchmark interest rates. At the same time, FINMA issued an order concluding its formal proceedings with respect to UBS relating to benchmark interest rates. UBS has paid a total of approximately CHF 1.4 billion in fines and disgorgement – including GBP 160 million in fines to the FSA, USD 700 million in fines to the CFTC, USD 500 million in fines to the DOJ, and CHF 59 million in disgorgement to FINMA. UBS Securities Japan Co. Ltd. (UBSSJ) entered into a plea agreement with the DOJ under which it entered a plea to one count of wire fraud relating to the manipulation of certain benchmark interest rates, including Yen LIBOR. UBS entered into an NPA with the DOJ, which (along with the plea agreement) covered conduct beyond the scope of the conditional leniency/immunity grants described below, required UBS to pay the USD 500 million fine to the DOJ after the sentencing of UBSSJ, and provided that any criminal penalties imposed on UBSSJ at sentencing be deducted from the USD 500 million fine. Under the NPA, we agreed, among other things, that for two years from 18 December 2012 UBS would not commit any US crime, and we would advise DOJ of any potentially criminal conduct by UBS or any of its employees relating to violations of US laws concerning fraud or securities and commodities markets. The term of the NPA was extended by one year to 18 December 2015. In May 2015, the Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA. As a result, UBS entered into a plea agreement with the DOJ under which it entered a guilty plea to one count of wire fraud relating to the manipulation of certain benchmark interest rates, including Yen LIBOR, and agreed to pay a fine of USD 203 million and accept a three-year term of probation. Sentencing is currently scheduled for 9 May 2016.

In 2014, UBS reached a settlement with the European Commission (EC) regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and paid a EUR 12.7 million fine, which was reduced to this level based in part on UBS's cooperation with the EC. The MAS, HKMA and the Japan Financial Services Agency have also resolved investigations of UBS (and in some cases, other banks). We have ongoing obligations to cooperate with the authorities with whom we have reached resolutions and to undertake certain remediation with respect to benchmark interest rate submissions.

Investigations by the CFTC, ASIC and other governmental authorities remain ongoing notwithstanding these resolutions.

**Note 22 Provisions and contingent liabilities (continued)**

UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ, WEKO and the EC, in connection with potential antitrust or competition law violations related to submissions for Yen LIBOR and Euroyen TIBOR. WEKO has also granted UBS conditional immunity in connection with potential competition law violations related to submissions for CHF LIBOR and certain transactions related to CHF LIBOR. As a result of these conditional grants, we will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in the jurisdictions where we have conditional immunity or leniency in connection with the matters covered by the conditional grants, subject to our continuing cooperation. However, the conditional leniency and conditional immunity grants we have received do not bar government agencies from asserting other claims and imposing sanctions against us, as evidenced by the settlements and ongoing investigations referred to above. In addition, as a result of the conditional leniency agreement with the DOJ, we are eligible for a limit on liability to actual rather than treble damages, were damages to be awarded in any civil antitrust action under US law based on conduct covered by the agreement and for relief from potential joint and several liability in connection with such civil antitrust action, subject to our satisfying the DOJ and the court presiding over the civil litigation of our cooperation. The conditional leniency and conditional immunity grants do not otherwise affect the ability of private parties to assert civil claims against us.

*LIBOR and other benchmark-related civil litigation*: A number of putative class actions and other actions are pending in, or expected to be transferred to, the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending are actions asserting losses related to various products whose interest rate was linked to USD LIBOR, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. All of the complaints allege manipulation, through various means, of various benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR or USD ISDAFIX rates and seek unspecified compensatory and other damages under varying legal theories. In 2013, the court in the USD action dismissed the federal antitrust and racketeering claims of certain USD LIBOR plaintiffs and a portion of their claims brought under the CEA and state common law. Plaintiffs have appealed the dismissal, and the appeal remains pending. In 2014, the court in one of the Euroyen TIBOR lawsuits dismissed certain of the plaintiff's claims, including federal antitrust claims. In 2015, the same court dismissed plaintiff's federal racketeering claims and affirmed its previous dismissal of plaintiff's antitrust claims. UBS and other defendants in other lawsuits including those related to EURIBOR, CHF LIBOR and GBP LIBOR have filed motions to dismiss.

Since September 2014, putative class actions have been filed in federal court in New York and New Jersey against UBS and other financial institutions, among others, on behalf of parties who entered into interest rate derivative transactions linked to ISDAFIX. The complaints, which have since been consolidated into an amended complaint, allege that the defendants conspired to manipulate ISDAFIX rates from 1 January 2006 through January 2014, in violation of US antitrust laws and the CEA, among other theories, and seeks unspecified compensatory damages, including treble damages. UBS and other defendants have filed a motion to dismiss, which remains pending.

*Government bonds:* Putative class actions have been filed in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. The complaints generally allege that the banks colluded with respect to and manipulated prices of US Treasury securities sold at auction. They assert claims under the antitrust laws and the CEA and for unjust enrichment. The cases have been consolidated in the SDNY. Following filing of these complaints, UBS and reportedly other banks have received requests for information from various authorities regarding US Treasury securities and other government bond trading practices.

With respect to additional matters and jurisdictions not encompassed by the settlements and order referred to above, our balance sheet at 31 December 2015 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information, and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

**Note 22 Provisions and contingent liabilities (continued)**

### 6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver.

FINMA has issued a supervisory note to all Swiss banks in response to the Supreme Court decision. The note sets forth the measures Swiss banks are to adopt, which include informing all affected clients about the Supreme Court decision and directing them to an internal bank contact for further details. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and may continue to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among others, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

Our balance sheet at 31 December 2015 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information, and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 7. Banco UBS Pactual tax indemnity

Pursuant to the 2009 sale of Banco UBS Pactual S.A. (Pactual) by UBS to BTG Investments, LP (BTG), BTG has submitted contractual indemnification claims that UBS estimates amount to approximately BRL 2.4 billion, including interest and penalties, which is net of liabilities retained by BTG. The claims pertain principally to several tax assessments issued by the Brazilian tax authorities against Pactual relating to the period from December 2006 through March 2009, when UBS owned Pactual. The majority of these assessments relate to the deductibility of goodwill amortization in connection with UBS's 2006 acquisition of Pactual and payments made to Pactual employees through various profit-sharing plans. These assessments are being challenged in administrative and judicial proceedings. In May 2015, the administrative court issued a decision that was largely in favor of the tax authority with respect to the goodwill amortization assessment. This decision has been appealed.

### 8. Matters relating to the CDS market

In 2013, the EC issued a Statement of Objections against 13 credit default swap (CDS) dealers including UBS, as well as data service provider Markit and the International Swaps and Derivatives Association (ISDA). The Statement of Objections broadly alleges that the dealers infringed European Union antitrust rules by colluding to prevent exchanges from entering the credit derivatives market between 2006 and 2009. In December 2015, the EC issued a statement that it had decided to close its investigation against all 13 dealers, including UBS. The EC's investigation regarding Markit and ISDA is ongoing. Since mid-2009, the Antitrust Division of the DOJ has also been investigating whether multiple dealers, including UBS, conspired with each other and with Markit to restrain competition in the markets for CDS trading, clearing and other services. In 2014, putative class action plaintiffs filed consolidated amended complaints in the SDNY against 12 dealers, including UBS, as well as Markit and ISDA, alleging violations of the US Sherman Antitrust Act and common law. Plaintiffs allege that the defendants unlawfully conspired to restrain competition in and/or monopolize the market for CDS trading in the US in order to protect the dealers' profits from trading CDS in the over-the-counter market. In September 2015, UBS and the other defendants entered into settlement agreements to resolve the litigation, pursuant to which UBS has paid USD 75 million out of a total settlement amount paid by all defendants of approximately USD 1.865 billion. The agreements have received preliminary court approval but are subject to final court approval.

## Note 23 Other liabilities

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Prime brokerage payables[1] | **45,306** | 38,633 |
| Amounts due under unit-linked investment contracts | **15,718** | 17,643 |
| Compensation-related liabilities | **5,122** | 5,414 |
| *of which: accrued expenses* | ***2,827*** | *2,583* |
| *of which: other deferred compensation plans* | ***1,559*** | *1,457* |
| *of which: net defined benefit pension and post-employment liabilities*[2] | ***736*** | *1,374* |
| Third-party interest in consolidated investment funds | **594** | 707 |
| Settlement and clearing accounts | **893** | 1,054 |
| Current and deferred tax liabilities[3] | **810** | 642 |
| VAT and other tax payables | **446** | 420 |
| Deferred income | **210** | 259 |
| Accrued interest expenses | **1,438** | 1,327 |
| Other accrued expenses | **2,492** | 2,472 |
| Liabilities of disposal group held for sale[4] | **235** | 0 |
| Other | **1,343** | 1,820 |
| **Total other liabilities** | **74,606** | 70,392 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage payables are mainly comprised of client securities financing and deposits. 2 Refer to Note 28 for more information. 3 Refer to Note 8 for more information. 4 Refer to Note 32 for more information.

# Additional information

## Note 24 Fair value measurement

This Note provides fair value measurement information for both financial and non-financial instruments and is structured as follows:
a) Valuation principles
b) Valuation governance
c) Valuation techniques
d) Valuation adjustments
e) Fair value measurements and classification within the fair value hierarchy
f) Transfers between Level 1 and Level 2 in the fair value hierarchy
g) Movements of Level 3 instruments
h) Valuation of assets and liabilities classified as Level 3
i) Sensitivity of fair value measurements to changes in unobservable input assumptions
j) Financial instruments not measured at fair value

### a) Valuation principles

Fair value is defined as the price that would be received for the sale of an asset or paid to transfer a liability in an orderly transaction between market participants in the principal market (or most advantageous market, in the absence of a principal market) as of the measurement date. In measuring fair value, UBS AG utilizes various valuation approaches and applies a hierarchy for prices and inputs that maximizes the use of observable market data, if available.

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which the instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:
– Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
– Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data or
– Level 3 – valuation techniques for which significant inputs are not based on observable market data.

If available, fair values are determined using quoted prices in active markets for identical assets or liabilities. An active market is one in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing data on an ongoing basis. Assets and liabilities that are quoted and traded in an active market are valued at the currently quoted price multiplied by the number of units of the instrument held.

Where the market for a financial instrument or non-financial asset or liability is not active, fair value is established using a valuation technique, including pricing models. Valuation techniques involve the use of estimates, the extent of which depends on the complexity of the instrument and the availability of market-based data. Valuation adjustments may be made to allow for additional factors including model, liquidity, credit and funding risks, which are not explicitly captured within the valuation technique, but which would nevertheless be considered by market participants when establishing a price. The limitations inherent in a particular valuation technique are considered in the determination of an asset or liability's classification within the fair value hierarchy.

Many cash instruments and over-the-counter (OTC) derivative contracts have bid and offer prices that can be observed in the marketplace. Bid prices reflect the highest price that a party is willing to pay for an asset. Offer prices represent the lowest price that a party is willing to accept for an asset. In general, long positions are measured at a bid price and short positions at an offer price, reflecting the prices at which the instruments could be transferred under normal market conditions. Offsetting positions in the same financial instrument are marked at the mid-price within the bid-offer spread.

Generally, the unit of account for a financial instrument is the individual instrument, and UBS applies valuation adjustments at an individual instrument level, consistent with that unit of account. However, if certain conditions are met, UBS may estimate the fair value of a portfolio of financial assets and liabilities with substantially similar and offsetting risk exposures on the basis of the net open risks.

For transactions where the valuation technique used to measure fair value requires significant inputs that are not based on observable market data, the financial instrument is initially recognized at the transaction price. This initial recognition amount may differ from the fair value obtained using the valuation technique. Any such difference is deferred and not recognized in the income statement and referred to as deferred day-1 profit or loss.

➔ **Refer to Note 24d for more information**

**Note 24 Fair value measurement (continued)**

## b) Valuation governance

UBS AG's fair value measurement and model governance framework includes numerous controls and other procedural safeguards that are intended to maximize the quality of fair value measurements reported in the financial statements. New products and valuation techniques must be reviewed and approved by key stakeholders from risk and finance control functions. Responsibility for the ongoing measurement of financial and non-financial instruments at fair value resides with the business divisions. In carrying out their valuation responsibilities, the businesses are required to consider the availability and quality of external market data and to provide justification and rationale for their fair value estimates.

The fair value estimates provided by the businesses are validated by risk and finance control functions, which are independent of the business divisions. Independent price verification is performed by finance through benchmarking the business divisions' fair value estimates with observable market prices and other independent sources. Controls and governance are in place to ensure the quality of third-party pricing sources where used. For instruments where valuation models are used to determine fair value, independent valuation and model control groups within finance and risk evaluate UBS AG's models on a regular basis, including valuation and model input parameters as well as pricing. As a result of the valuation controls employed, valuation adjustments may be made to the business divisions' estimates of fair value to align with independent market data and the relevant accounting standard.

➔ **Refer to Note 24d for more information**

## c) Valuation techniques

Valuation techniques are used to value positions for which a market price is not available from market sources. This includes certain less liquid debt and equity instruments, certain exchange-traded derivatives and all derivatives transacted in the OTC market. UBS AG uses widely recognized valuation techniques for determining the fair value of financial and non-financial instruments that are not actively traded and quoted. The most frequently applied valuation techniques include discounted value of expected cash flows, relative value and option pricing methodologies.

Discounted value of expected cash flows is a valuation technique that measures fair value using estimated expected future cash flows from assets or liabilities and then discounts these cash flows using a discount rate or discount margin that reflects the credit and/or funding spreads required by the market for instruments with similar risk and liquidity profiles to produce a present value. When using such valuation techniques, expected future cash flows are estimated using an observed or implied market price for the future cash flows or by using industry standard cash flow projection models. The discount factors within the calculation are generated using industry standard yield curve modeling techniques and models.

Relative value models measure fair value based on the market prices of equivalent or comparable assets or liabilities, making adjustments for differences between the characteristics of the observed instrument and the instrument being valued.

Option pricing models incorporate assumptions regarding the behavior of future price movements of an underlying referenced asset or assets to generate a probability-weighted future expected payoff for the option. The resulting probability-weighted expected payoff is then discounted using discount factors generated from industry standard yield curve modeling techniques and models. The option pricing model may be implemented using a closed-form analytical formula or other mathematical techniques (e.g., binomial tree or Monte Carlo simulation).

Where available, valuation techniques use market-observable assumptions and inputs. If such data is not available, inputs may be derived by reference to similar assets in active markets, from recent prices for comparable transactions or from other observable market data. In such cases, the inputs selected are based on historical experience and practice for similar or analogous instruments, derivation of input levels based on similar products with observable price levels and knowledge of current market conditions and valuation approaches.

For more complex instruments and instruments not traded in an active market, fair values may be estimated using a combination of observed transaction prices, consensus pricing services and relevant quotes. Consideration is given to the nature of the quotes (e.g., indicative or firm) and the relationship of recently evidenced market activity to the prices provided by consensus pricing services. UBS AG also uses internally developed models, which are typically based on valuation methods and techniques recognized as standard within the industry.

**Note 24 Fair value measurement (continued)**

Assumptions and inputs used in valuation techniques include benchmark interest rate curves, credit and funding spreads used in estimating discount rates, bond and equity prices, equity index prices, foreign exchange rates, levels of market volatility and correlation. Refer to Notes 24e and 24h for more information. The discount curves used by UBS AG incorporate the funding and credit characteristics of the instruments to which they are applied.

## d) Valuation adjustments

The output of a valuation technique is always an estimate of a fair value that cannot be measured with complete certainty. As a result, valuations are adjusted, where appropriate and when such factors would be considered by market participants in estimating fair value, to reflect close-out costs, credit exposure, model-driven valuation uncertainty, funding costs and benefits, trading restrictions and other factors. Valuation adjustments are an important component of fair value for assets and liabilities that are measured using valuation techniques. Such adjustments are applied to reflect uncertainties within the fair value measurement process, to adjust for an identified model simplification or to incorporate an aspect of fair value that requires an overall portfolio assessment rather than an evaluation based on an individual instrument level characteristic.

The major classes of valuation adjustments are discussed in further detail below.

### Day-1 reserves

For new transactions where the valuation technique used to measure fair value requires significant inputs that are not based on observable market data, the financial instrument is initially recognized at the transaction price. The transaction price may differ from the fair value obtained using a valuation technique where any such difference is deferred and not initially recognized in the income statement. These day-1 profit or loss reserves are reflected, where appropriate, as valuation adjustments.

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period. Amounts deferred are released and gains or losses are recorded in *Net trading income* when pricing of equivalent products or the underlying parameters become observable or when the transaction is closed out.

**Deferred day-1 profit or loss**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| **Balance at the beginning of the year** | **480** | 486 | 474 |
| Profit / (loss) deferred on new transactions | **268** | 344 | 694 |
| (Profit) / loss recognized in the income statement | **(321)** | (384) | (653) |
| Foreign currency translation | **(6)** | 35 | (29) |
| **Balance at the end of the year** | **421** | 480 | 486 |

## Note 24 Fair value measurement (continued)

### Own credit adjustments on financial liabilities designated at fair value

In addition to considering the valuation of the derivative risk component, the valuation of fair value option liabilities also requires consideration of the funded component and specifically the own credit component of fair value. Own credit risk is reflected in the valuation of our fair value option liabilities where this component is considered relevant for valuation purposes by our counterparties and other market participants. On the other hand, own credit risk is not reflected in the valuation of our liabilities that are fully collateralized or for other obligations for which it is established market practice not to include an own credit component.

In 2015, UBS AG made enhancements to the valuation methodology for the own credit component of fair value of financial liabilities designated at fair value. Prior to the fourth quarter of 2015, own credit was estimated using a funds transfer pricing curve (FTP), which was derived by discounting UBS Group AG (consolidated) new issuance senior debt curve spreads, with the discount primarily reflecting the differences between the spreads in the senior unsecured debt market for UBS Group AG (consolidated) debt and the levels at which UBS Group AG (consolidated) medium-term notes (MTN) were issued. A decline in long-dated UBS Group AG (consolidated) MTN issuance volumes, following UBS Group AG's (consolidated) business transformation, resulted in a reduction in the observable market data available to benchmark the FTP. From the fourth quarter of 2015 onwards, own credit is estimated using an own credit adjustment curve (OCA), which incorporates more observable market data, including market-observed secondary prices for UBS Group AG (consolidated) senior debt, UBS Group AG (consolidated) credit default swap (CDS) spreads and senior debt curves of peers. This change in accounting estimate was finalized in the fourth quarter of 2015, following a multi-period implementation project to develop an enhanced fair value approach supported by related infrastructure enhancements. The change was implemented on a prospective basis in the fourth quarter of 2015 and resulted in a gain of CHF 260 million on a total carrying amount of CHF 63 billion in financial liabilities designated at fair value.

OCA is generally a Level 2 pricing input. However, certain long-dated exposures that are beyond the tenors that are actively traded are classified as Level 3.

The effects of own credit adjustments related to financial liabilities designated at fair value (predominantly issued structured products) are summarized in the table below.

Life-to-date amounts reflect the cumulative change since initial recognition. The change in own credit for the period consists of changes in fair value that are attributable to the change in UBS AG's credit spreads, as well as the effect of changes in fair values attributable to factors other than credit spreads, such as redemptions, effects from time decay and changes in interest and other market rates.

**Own credit adjustments on financial liabilities designated at fair value**

| | As of or for the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| Gain / (loss) for the year ended | **553** | 292 | (283) |
| Life-to-date gain / (loss) | **287** | (302) | (577) |

## Note 24 Fair value measurement (continued)

### Credit valuation adjustments

In order to measure the fair value of OTC derivative instruments, including funded derivative instruments which are classified as *Financial assets designated at fair value*, credit valuation adjustments (CVA) are necessary to reflect the credit risk of the counterparty inherent in these instruments. This amount represents the estimated fair value of protection required to hedge the counterparty credit risk of such instruments. A CVA is determined for each counterparty, considering all exposures to that counterparty, and is dependent on the expected future value of exposures, default probabilities and recovery rates, applicable collateral or netting arrangements, break clauses and other contractual factors.

### Funding valuation adjustments

Funding valuation adjustments (FVA) reflect the costs and benefits of funding associated with uncollateralized and partially collateralized derivative receivables and payables and are calculated as the valuation impact from moving the discounting of the uncollateralized derivative cash flows from LIBOR to OCA using the CVA framework.

In the fourth quarter of 2015, as mentioned above, UBS AG replaced the FTP curve with the OCA curve for purposes of valuing its liabilities carried at fair value. As applied to the FVA associated with uncollateralized and partially collateralized derivative payables, the change resulted in a charge to the income statement of CHF 40 million.

An FVA is also applied to collateralized derivative assets in cases where the collateral cannot be sold or repledged.

### Debit valuation adjustments

A debit valuation adjustment (DVA) is estimated to incorporate own credit in the valuation of derivatives, effectively consistent with the CVA framework. DVA is determined for each counterparty, considering all exposures with that counterparty and taking into account collateral netting agreements, expected future mark-to-market movements and UBS AG's credit default spreads. Upon the implementation of FVA in the second half of 2014, UBS AG reversed DVA to the extent it overlapped with FVA.

### Other valuation adjustments

Instruments that are measured as part of a portfolio of combined long and short positions are valued at mid-market levels to ensure consistent valuation of the long and short component risks. A liquidity valuation adjustment is then made to the overall net long or short exposure to move the fair value to bid or offer as appropriate, reflecting current levels of market liquidity. The bid-offer spreads used in the calculation of this valuation adjustment are obtained from market transactions and other relevant sources and are updated periodically.

Uncertainties associated with the use of model-based valuations are incorporated into the measurement of fair value through the use of model reserves. These reserves reflect the amounts that UBS AG estimates should be deducted from valuations produced directly by models to incorporate uncertainties in the relevant modeling assumptions, in the model and market inputs used, or in the calibration of the model output to adjust for known model deficiencies. In arriving at these estimates, UBS AG considers a range of market practices, including how it believes market participants would assess these uncertainties. Model reserves are reassessed periodically in light of data from market transactions, consensus pricing services and other relevant sources.

**Valuation adjustments on financial instruments**

| | As of | |
|---|---|---|
| *Life-to-date gain / (loss), CHF billion* | **31.12.15** | 31.12.14 |
| **Credit valuation adjustments[1]** | **(0.3)** | (0.5) |
| **Funding valuation adjustments** | **(0.2)** | (0.1) |
| **Debit valuation adjustments** | **0.0** | 0.0 |
| **Other valuation adjustments** | **(0.8)** | (0.9) |
| *of which: liquidity* | ***(0.5)*** | *(0.5)* |
| *of which: model uncertainty* | ***(0.3)*** | *(0.4)* |

1 Amounts do not include reserves against defaulted counterparties.

## Note 24 Fair value measurement (continued)

### e) Fair value measurements and classification within the fair value hierarchy

The fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value is summarized in the table below. The narrative that follows describes the significant valuation inputs and assumptions for each class of assets and liabilities measured at fair value, the valuation techniques, where applicable, used in measuring their fair value, and the factors determining their classification within the fair value hierarchy.

**Determination of fair values from quoted market prices or valuation techniques[1]**

| | 31.12.15 | | | | 31.12.14 | | | |
|---|---|---|---|---|---|---|---|---|
| *CHF billion* | **Level 1** | **Level 2** | **Level 3** | **Total** | Level 1 | Level 2 | Level 3 | Total |
| **Assets measured at fair value on a recurring basis** | | | | | | | | |
| Financial assets held for trading[2] | **96.4** | **21.9** | **2.1** | **120.4** | 101.7 | 27.2 | 3.5 | 132.4 |
| *of which:* | | | | | | | | |
| *Government bills/bonds* | ***12.9*** | ***3.3*** | ***0.0*** | ***16.2*** | *8.8* | *4.7* | *0.0* | *13.6* |
| *Corporate bonds and municipal bonds, including bonds issued by financial institutions* | ***0.2*** | ***8.1*** | ***0.7*** | ***9.0*** | *0.6* | *11.0* | *1.4* | *12.9* |
| *Loans* | ***0.0*** | ***1.8*** | ***0.8*** | ***2.6*** | *0.0* | *2.2* | *1.1* | *3.2* |
| *Investment fund units* | ***6.1*** | ***5.7*** | ***0.2*** | ***11.9*** | *6.7* | *6.4* | *0.3* | *13.4* |
| *Asset-backed securities* | ***0.0*** | ***1.0*** | ***0.2*** | ***1.2*** | *0.0* | *1.5* | *0.6* | *2.1* |
| *Equity instruments* | ***62.4*** | ***1.5*** | ***0.1*** | ***64.0*** | *68.8* | *0.8* | *0.1* | *69.8* |
| *Financial assets for unit-linked investment contracts* | ***14.8*** | ***0.7*** | ***0.1*** | ***15.5*** | *16.8* | *0.6* | *0.1* | *17.4* |
| Positive replacement values | **0.5** | **164.0** | **2.9** | **167.4** | 1.0 | 251.6 | 4.4 | 257.0 |
| *of which:* | | | | | | | | |
| *Interest rate contracts* | ***0.0*** | ***74.4*** | ***0.1*** | ***74.5*** | *0.0* | *123.4* | *0.2* | *123.7* |
| *Credit derivative contracts* | ***0.0*** | ***5.4*** | ***1.3*** | ***6.7*** | *0.0* | *9.8* | *1.7* | *11.5* |
| *Foreign exchange contracts* | ***0.3*** | ***64.9*** | ***0.5*** | ***65.7*** | *0.7* | *97.0* | *0.6* | *98.4* |
| *Equity/index contracts* | ***0.0*** | ***15.9*** | ***1.0*** | ***16.9*** | *0.0* | *17.7* | *1.9* | *19.5* |
| *Commodity contracts* | ***0.0*** | ***3.4*** | ***0.0*** | ***3.4*** | *0.0* | *3.6* | *0.0* | *3.6* |
| Financial assets designated at fair value | **0.2** | **2.3** | **3.3** | **5.8** | 0.1 | 0.9 | 3.5 | 4.5 |
| *of which:* | | | | | | | | |
| *Loans (including structured loans)* | ***0.0*** | ***2.3*** | ***1.7*** | ***4.0*** | *0.0* | *0.8* | *1.0* | *1.7* |
| *Structured reverse repurchase and securities borrowing agreements* | ***0.0*** | ***0.0*** | ***1.5*** | ***1.6*** | *0.0* | *0.1* | *2.4* | *2.5* |
| *Other* | ***0.2*** | ***0.0*** | ***0.1*** | ***0.3*** | *0.1* | *0.0* | *0.1* | *0.3* |
| Financial investments available-for-sale | **34.2** | **27.7** | **0.7** | **62.5** | 32.7 | 23.9 | 0.6 | 57.2 |
| *of which:* | | | | | | | | |
| *Government bills/bonds* | ***31.1*** | ***2.0*** | ***0.0*** | ***33.1*** | *30.3* | *2.8* | *0.0* | *33.1* |
| *Corporate bonds and municipal bonds, including bonds issued by financial institutions* | ***3.0*** | ***22.2*** | ***0.0*** | ***25.2*** | *2.2* | *16.9* | *0.0* | *19.1* |
| *Investment fund units* | ***0.0*** | ***0.1*** | ***0.1*** | ***0.2*** | *0.0* | *0.1* | *0.2* | *0.3* |
| *Asset-backed securities* | ***0.0*** | ***3.4*** | ***0.0*** | ***3.4*** | *0.0* | *4.0* | *0.0* | *4.0* |
| *Equity instruments* | ***0.1*** | ***0.0*** | ***0.5*** | ***0.6*** | *0.2* | *0.1* | *0.4* | *0.7* |
| Non-financial assets | | | | | | | | |
| Precious metals and other physical commodities | **3.7** | **0.0** | **0.0** | **3.7** | 5.8 | 0.0 | 0.0 | 5.8 |
| **Assets measured at fair value on a non-recurring basis** | | | | | | | | |
| Other assets[3] | **0.3** | **0.1** | **0.1** | **0.4** | 0.0 | 0.1 | 0.2 | 0.2 |
| **Total assets measured at fair value** | **135.2** | **216.0** | **9.0** | **360.3** | 141.4 | 303.5 | 12.2 | 457.1 |

## Note 24 Fair value measurement (continued)

**Determination of fair values from quoted market prices or valuation techniques[1] (continued)**

| | 31.12.15 | | | | 31.12.14 | | | |
|---|---|---|---|---|---|---|---|---|
| *CHF billion* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Liabilities measured at fair value on a recurring basis** | | | | | | | | |
| Trading portfolio liabilities | 25.5 | 3.5 | 0.2 | 29.1 | 23.9 | 3.9 | 0.1 | 28.0 |
| *of which:* | | | | | | | | |
| *Government bills/bonds* | 6.0 | 0.8 | 0.0 | 6.8 | 7.0 | 1.2 | 0.0 | 8.2 |
| *Corporate bonds and municipal bonds, including bonds issued by financial institutions* | 0.0 | 2.4 | 0.1 | 2.5 | 0.1 | 2.4 | 0.1 | 2.6 |
| *Investment fund units* | 0.7 | 0.1 | 0.0 | 0.7 | 1.1 | 0.1 | 0.0 | 1.2 |
| *Asset-backed securities* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| *Equity instruments* | 18.8 | 0.2 | 0.0 | 19.1 | 15.7 | 0.1 | 0.0 | 15.9 |
| Negative replacement values | 0.6 | 158.5 | 3.3 | 162.4 | 1.1 | 248.1 | 5.0 | 254.1 |
| *of which:* | | | | | | | | |
| *Interest rate contracts* | 0.0 | 67.2 | 0.3 | 67.6 | 0.0 | 117.3 | 0.6 | 117.9 |
| *Credit derivative contracts* | 0.0 | 5.4 | 1.3 | 6.7 | 0.0 | 10.0 | 1.7 | 11.7 |
| *Foreign exchange contracts* | 0.3 | 63.0 | 0.2 | 63.5 | 0.7 | 96.6 | 0.3 | 97.6 |
| *Equity/index contracts* | 0.0 | 19.7 | 1.4 | 21.2 | 0.0 | 20.9 | 2.4 | 23.3 |
| *Commodity contracts* | 0.0 | 3.2 | 0.0 | 3.2 | 0.0 | 3.2 | 0.0 | 3.2 |
| Financial liabilities designated at fair value | 0.0 | 52.3 | 10.7 | 63.0 | 0.0 | 63.4 | 11.9 | 75.3 |
| *of which:* | | | | | | | | |
| *Non-structured fixed-rate bonds* | 0.0 | 1.5 | 2.6 | 4.1 | 0.0 | 2.3 | 2.2 | 4.5 |
| *Structured debt instruments issued* | 0.0 | 45.7 | 6.7 | 52.4 | 0.0 | 56.6 | 7.3 | 63.9 |
| *Structured over-the-counter debt instruments* | 0.0 | 4.7 | 0.8 | 5.5 | 0.0 | 4.1 | 1.5 | 5.7 |
| *Structured repurchase agreements* | 0.0 | 0.3 | 0.6 | 0.8 | 0.0 | 0.3 | 0.9 | 1.2 |
| *Loan commitments and guarantees* | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 |
| Other liabilities – amounts due under unit-linked investment contracts | 0.0 | 15.7 | 0.0 | 15.7 | 0.0 | 17.6 | 0.0 | 17.6 |
| **Liabilities measured at fair value on a non-recurring basis** | | | | | | | | |
| Other liabilities[3] | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total liabilities measured at fair value** | **26.1** | **230.3** | **14.1** | **270.5** | **25.0** | **333.0** | **17.0** | **375.0** |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 31 December 2015, net bifurcated embedded derivative liabilities held at fair value, totaling CHF 0.1 billion (of which CHF 0.1 billion were net Level 2 assets and CHF 0.2 billion net Level 2 liabilities) were recognized on the balance sheet within Debt issued. As of 31 December 2014, net bifurcated embedded derivative liabilities held at fair value, totaling CHF 0.0 billion (of which CHF 0.3 billion were net Level 2 assets and CHF 0.3 billion net Level 2 liabilities) were recognized on the balance sheet within Debt issued. 2 Financial assets held for trading do not include precious metals and other physical commodities. 3 Other assets and other liabilities primarily consist of assets held for sale as well as assets and liabilities of a disposal group held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell. Refer to Note 32 for more information on the disposal group held for sale.

**Note 24 Fair value measurement (continued)**

### Financial assets and liabilities held for trading, financial assets designated at fair value and financial investments classified as available-for-sale

*Government bills and bonds*
Government bills and bonds include fixed-rate, floating-rate and inflation-linked bills and bonds issued by sovereign governments, as well as interest and principal strips based on these bonds. Such instruments are generally traded in active markets and prices can be obtained directly from these markets, resulting in classification as Level 1, while the remaining positions are classified as Level 2. Instruments that cannot be priced directly using active market data are valued using discounted cash flow valuation techniques that incorporate market data for similar government instruments converted into yield curves. These yield curves are used to project future index levels, and to discount expected future cash flows. The main inputs to valuation techniques for these instruments are bond prices and inputs to estimate the future index levels for floating or inflation index-linked instruments. Instruments classified as Level 3 are limited and are generally classified as such due to the requirement to extrapolate yield curve inputs outside the range of active market trading.

*Corporate and municipal bonds*
Corporate bonds include senior, junior and subordinated debt issued by corporate entities. Municipal bonds are issued by state and local governments. While most instruments are standard fixed or floating-rate securities, some may have more complex coupon or embedded option features. Corporate and municipal bonds are generally valued using prices obtained directly from the market. In cases where no directly comparable price is available, instruments may be valued using yields derived from other securities by the same issuer or benchmarked against similar securities, adjusted for seniority, maturity and liquidity. Instruments that cannot be priced directly using active market data are valued using discounted cash flow valuation techniques incorporating the credit spread of the issuer, which may be derived from other issuances or CDS data for the issuer, estimated with reference to other equivalent issuer price observations or from credit modeling techniques. Corporate bonds are typically classified as Level 2 because, although market data is readily available, there is often insufficient third-party trading transaction data to justify an active market and corresponding Level 1 classification. Municipal bonds are generally classified as Level 1 or Level 2 depending on the depth of trading activity behind price sources. Level 3 instruments have no suitable price available and also cannot be referenced to other securities issued by the same issuer. Therefore, these instruments are measured based on price levels for similar issuers adjusted for relative tenor and issuer quality.

Convertible bonds are generally valued using prices obtained directly from market sources. In cases where no directly comparable price is available, issuances may be priced using a convertible bond model, which values the embedded equity option and debt components and discounts these amounts using a curve that incorporates the credit spread of the issuer. Although market data is readily available, convertible bonds are typically classified as Level 2 because there is insufficient third-party trading transaction data to justify a Level 1 classification.

*Traded loans and loans designated at fair value*
Traded loans and loans designated at fair value are valued directly using market prices that reflect recent transactions or quoted dealer prices where available. For illiquid loans where no market price data are available, alternative valuation techniques are used, which include relative value benchmarking using pricing derived from debt instruments in comparable entities or different products in the same entity. The corporate lending portfolio is valued using either directly observed market prices typically from consensus providers, or by using a credit default swap valuation technique, which requires inputs for credit spreads, credit recovery rates and interest rates. Even though price data are generally available for these instruments, corporate loans typically do not satisfy Level 1 classification criteria insofar as the price data may not be directly observable, and moreover the market for these instruments is not actively traded. Instruments with suitably deep and liquid price data available will be classified as Level 2, while any positions requiring the use of valuation techniques or for which the price sources have insufficient trading depth are classified as Level 3. Recently originated commercial real estate loans that are classified as Level 3 are measured using a securitization approach based on rating agency guidelines.

Included within loans are various contingent lending transactions for which valuations are dependent on actuarial mortality levels and actuarial life insurance policy lapse rates. Mortality and lapse rate assumptions are based on external actuarial estimations for large homogeneous pools, and contingencies are derived from a range relative to the actuarially expected amount. In addition, the pricing technique uses volatility of mortality as an input.

## Note 24 Fair value measurement (continued)

*Investment fund units*

Investment fund units are predominantly exchange-traded, with readily available quoted prices in liquid markets. Where market prices are not available, fair value may be measured using net asset values (NAV), taking into account any restrictions imposed upon redemption. Listed units are classified as Level 1, provided there is sufficient trading to justify active market classification, while other positions are classified as Level 2. Positions where NAV is not available or which are not redeemable at the measurement date or in the near future are classified as Level 3.

*Asset-backed securities: residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS), other asset-backed securities (ABS) and collateralized debt obligations (CDO)*

RMBS, CMBS, ABS and CDO are instruments generally issued through the process of securitization of underlying interest-bearing assets. The underlying collateral for RMBS is residential mortgages, for CMBS, commercial mortgages, for ABS, other assets such as credit card, car or student loans and leases, and for CDO, other securitized positions of RMBS, CMBS or ABS. The market for these securities is not active, and therefore a variety of valuation techniques are used to measure fair value. For more liquid securities, trade data or quoted prices may be obtained periodically for the instrument held, and the valuation process will use this trade and price data, updated for movements in market levels between the time of trading and the time of valuation. Less liquid instruments are measured using discounted expected cash flows incorporating price data for instruments or indices with similar risk profiles. Expected cash flow estimation involves the modeling of the expected collateral cash flows using input assumptions derived from proprietary models, fundamental analysis and/or market research based on management's quantitative and qualitative assessment of current and future economic conditions. The expected collateral cash flows estimated are then converted into the securities' projected performance under such conditions based on the credit enhancement and subordination terms of the securitization. Expected cash flow schedules are discounted using a rate or discount margin that reflects the discount levels required by the market for instruments with similar risk and liquidity profiles. Inputs to discounted expected cash flow techniques include asset prepayment rates, discount margin or discount yields, asset default rates and asset loss on default severity, which may in turn be estimated using more fundamental loan and economic drivers such as, but not limited to, loan-to-value data, house price appreciation, foreclosure costs, rental income levels, void periods and employment rates. RMBS, CMBS and ABS are generally classified as Level 2. However, if significant inputs are unobservable, or if market or fundamental data are not available for instruments or collateral with a sufficiently similar risk profile to the positions held, they are classified as Level 3.

*Equity instruments*

The majority of equity securities are actively traded on public stock exchanges where quoted prices are readily and regularly available, resulting in their classification as Level 1. Units held in hedge funds are also classified as equity instruments. Fair value for these units is measured based on their published NAV, taking into account any restrictions imposed upon the redemption. These units are classified as Level 2, except for positions where published NAV is not available or which are not redeemable at the measurement date or in the near future, in which case they are classified as Level 3.

Unlisted equity holdings, including private equity positions, are initially marked at their transaction price and are revalued to the extent reliable evidence of price movements becomes available or the position is deemed to be impaired.

*Financial assets underlying unit-linked investment contracts*

Unit-linked investment contracts allow investors to invest in a pool of assets through issued investment units. The unit holders are exposed to all risks and rewards associated with the reference asset pool. Assets held under unit-linked investment contracts are presented as Trading portfolio assets. The majority of assets are listed on exchanges and are classified as Level 1 if actively traded, or Level 2 if trading is not active. However, instruments for which prices are not readily available are classified as Level 3.

*Structured (reverse) repurchase agreements*

Structured (reverse) repurchase agreements designated at fair value are measured using discounted expected cash flow techniques. The discount rate applied is based on funding curves that are specific to the collateral eligibility terms for the contract in question. Collateral terms for these positions are not standard and therefore funding spread levels used for valuation purposes cannot be observed in the market. As a result, these positions are mostly classified as Level 3.

**Note 24 Fair value measurement (continued)**

Replacement values

The curves used for discounting expected cash flows in the valuation of collateralized derivatives reflect the funding terms associated with the relevant collateral arrangement for the instrument being valued. These collateral arrangements differ across counterparties with respect to the eligible currency and interest terms of the collateral. The majority of collateralized derivatives are measured using a discount curve that is based on funding rates derived from overnight interest in the cheapest eligible currency for the respective counterparty collateral agreement.

Uncollateralized and partially collateralized derivatives are discounted using the LIBOR (or equivalent) curve for the currency of the instrument. As described in Note 24d, the fair value of uncollateralized and partially collateralized derivatives is then adjusted by CVA, DVA and FVA as applicable, to reflect an estimation of the impact of counterparty credit risk, UBS AG's own credit risk and funding costs and benefits.

*Interest rate contracts*

Interest rate swap contracts include interest rate swaps, basis swaps, cross-currency swaps, inflation swaps and interest rate forwards, often referred to as forward-rate agreements (FRA). These products are valued by estimating future interest cash flows and discounting those cash flows using a rate that reflects the appropriate funding rate for the position being measured. The yield curves used to estimate future index levels and discount rates are generated using market standard yield curve models using interest rates associated with current market activity. The key inputs to the models are interest rate swap rates, FRA rates, short-term interest rate futures prices, basis swap spreads and inflation swap rates. In most cases, the standard market contracts that form the inputs for yield curve models are traded in active and observable markets, resulting in the majority of these financial instruments being classified as Level 2.

Interest rate option contracts include caps and floors, swaptions, swaps with complex payoff profiles and other more complex interest rate options. These contracts are valued using various market standard option models, using inputs that include interest rate yield curves, inflation curves, volatilities and correlations. The volatility and correlation inputs within the models are implied from market data based on market observed prices for standard option instruments trading within the market. Option models used to value more exotic products have a number of model parameter inputs that require calibration to enable the exotic model to price standard option instruments to the price levels observed in the market. Although these inputs cannot be directly observed, they are generally treated as Level 2, as the calibration process enables the model output to be validated to active market levels. Models calibrated in this way are then used to revalue the portfolio of both standard options as well as more exotic products. In most cases, there are active and observable markets for the standard market instruments that form the inputs for yield curve models as well as the financial instruments from which volatility and correlation inputs are derived, resulting in the majority of these products being classified as Level 2. Within interest rate option contracts, exotic options for which appropriate volatility or correlation input levels cannot be implied from observable market data are classified as Level 3. These options are valued using volatility and correlation levels derived from non-market sources.

Interest rate swap and option contracts are classified as Level 3 when the maturity of the contract exceeds the term for which standard market quotes are observable for a significant input parameter. Such positions are valued by extrapolation from the last observable point using standard assumptions or by reference to another observable comparable input parameter to represent a suitable proxy for that portion of the term.

Balance guaranteed swaps (BGS) are interest rate or currency swaps that have a notional schedule based on a securitization vehicle, requiring the valuation to incorporate an adjustment for the unknown future variability of the notional schedule. Inputs to value BGS are those used to value the standard market risk on the swap and those used to estimate the notional schedule of the underlying securitization pool (i.e., prepayment, default and interest rates). BGS are classified as Level 3, as the correlation between unscheduled notional changes and the underlying market risk of the BGS does not have an active market and cannot be observed.

## Note 24 Fair value measurement (continued)

*Credit derivative contracts*

Credit derivative contracts based on a single credit name include credit default swaps (CDS) based on corporate and sovereign single names, CDS on loans and certain total return swaps (TRS). These contracts are valued by estimating future default probabilities using industry standard models based on market credit spreads, upfront pricing points and implied recovery rates. These default and recovery assumptions are used to generate future expected cash flows that are then discounted using market standard discounted cash flow models and a discount rate that reflects the appropriate funding rate for that portion of the portfolio. TRS and certain single-name CDS contracts for which a derivative-based credit spread is not directly available are valued using a credit spread derived from the price of the cash bond that is referenced in the credit derivative, adjusted for any funding differences between the cash and synthetic product. Loan CDS for which a credit spread cannot be observed directly may be valued, where possible, using the corporate debt curve for the entity, adjusted for differences between loan and debt default definitions and recovery rate assumptions. Inputs to the valuation models used to value single-name and loan CDS include single-name credit spreads and upfront pricing points, recovery rates and funding curves. In addition, corporate bond prices are used as inputs to the valuation model for TRS and certain single-name or loan CDS as described. Many single-name credit default swaps are classified as Level 2 because the credit spreads and recovery rates used to value these contracts are actively traded and observable market data are available. Where the underlying reference name is not actively traded, these contracts are classified as Level 3.

Credit derivative contracts based on a portfolio of credit names include credit default swaps on a credit index, credit default swaps based on a bespoke portfolio or first to default swaps (FTD). The valuation of these contracts is similar to that described above for single-name CDS and includes an estimation of future default probabilities using industry standard models based on market credit spreads, upfront pricing points and implied recovery rates. These default and recovery assumptions are used to generate future expected cash flows that are then discounted using market standard discounted cash flow models based on an estimation of the funding rate for that portion of the portfolio. Tranche products and FTD are valued using industry standard models that, in addition to default and recovery assumptions as above, incorporate implied correlations to be applied to the credits within the portfolio in order to apportion the expected credit loss at a portfolio level across the different tranches or names within the overall structure. These correlation assumptions are derived from prices of actively traded index tranches or other FTD baskets. Inputs to the valuation models used for all portfolio credit default swaps include single-name or index credit spreads and upfront pricing points, recovery rates and funding curves. In addition, models used for tranche and FTD products have implied credit correlations as inputs. Credit derivative contracts based on a portfolio of credit names are classified as Level 2 when credit spreads and recovery rates are determined from actively traded observable market data, and when the correlation data used to value bespoke and index tranches are based on actively traded index tranche instruments. These correlation data undergo a mapping process that takes into account both the relative tranche attachment/detachment points in the overall capital structure of the portfolio and portfolio composition. Where the mapping process requires extrapolation beyond the range of available and active market data, the position is classified as Level 3. This relates to a small number of index and all bespoke tranche contracts. FTD are classified as Level 3 as the correlations between specific names in the FTD portfolio are not actively traded. Also classified as Level 3 are several older credit index positions, referred to as off-the-run indices, due to the lack of any active market for the index credit spread.

Credit derivative contracts on securitized products have an underlying reference asset that is a securitized product (RMBS, CMBS, ABS or CDO) and include credit default swaps and certain TRS. These credit default swaps (typically referred to as pay-as-you-go (PAYG) CDS) and TRS are valued using a similar valuation technique to the underlying security (by reference to equivalent securities trading in the market, or through cash flow estimation and discounted cash flow techniques as described in the Asset-backed securities section above), with an adjustment made to reflect the funding differences between cash and synthetic form. Inputs to the PAYG CDS and TRS are those used to value the underlying security (prepayment rates, default rates, loss severity, discount margin/rate and other inputs) and those used to capture the funding basis differential between cash and synthetic form. The classification of PAYG CDS and these TRS follow the characteristics of the underlying security and are therefore distributed across Level 2 and Level 3.

**Note 24 Fair value measurement (continued)**

*Foreign exchange (FX) contracts*

Open spot FX contracts are valued using the FX spot rate observed in the market. Forward FX contracts are valued using the FX spot rate adjusted for forward pricing points observed from standard market-based sources. As the markets for both FX spot and FX forward pricing points are both actively traded and observable, FX contracts are generally classified as Level 2.

OTC FX option contracts include standard call and put options, options with multiple exercise dates, path-dependent options, options with averaging features, options with discontinuous payoff characteristics and options on a number of underlying FX rates. OTC FX option contracts are valued using market standard option valuation models. The models used for shorter-dated options (i.e., maturities of five years or less) tend to be different than those used for longer-dated options because the models needed for longer-dated OTC FX contracts require additional consideration of interest rate and FX rate interdependency. Inputs to the option valuation models include spot FX rates, FX forward points, FX volatilities, interest rate yield curves, interest rate volatilities and correlations. The inputs for volatility and correlation are implied through the calibration of observed prices for standard option contracts trading within the market.

As inputs are derived mostly from standard market contracts traded in active and observable markets, a significant proportion of OTC FX option contracts are classified as Level 2. OTC FX option contracts classified as Level 3 include long-dated FX exotic option contracts for which there is no active market from which to derive volatility or correlation inputs. The inputs used to value these OTC FX option contracts are calculated using consensus pricing services without an underlying principal market, historical asset prices or by extrapolation.

Cross-currency balance guaranteed swaps are classified as foreign exchange contracts. Details of the fair value classification can be found under the interest rate contracts section above.

*Equity/index contracts*

Equity/index contracts include equity forward contracts and equity option contracts. Equity forward contracts have a single stock or index underlying and are valued using market standard models. The key inputs to the models are stock prices, estimated dividend rates and equity funding rates (which are implied from prices of forward contracts observed in the market). Estimated cash flows are then discounted using market standard discounted cash flow models using a rate that reflects the appropriate funding rate for that portion of the portfolio. As inputs are derived mostly from standard market contracts traded in active and observable markets, a significant proportion of equity forward contracts are classified as Level 2. Positions classified as Level 3 have no market data available for the instrument maturity and are valued by some form of extrapolation of available data, use of historical dividend data, or use of data for a related equity.

Equity option contracts include market standard single or basket stock or index call and put options as well as equity option contracts with more complex features including option contracts with multiple or continuous exercise dates, option contracts for which the payoff is based on the relative or average performance of components of a basket, option contracts with discontinuous payoff profiles, path-dependent options and option contracts with a payoff calculated directly upon equity features other than price (i.e., dividend rates, volatility or correlation). Equity option contracts are valued using market standard models that estimate the equity forward level as described above for equity forward contracts and incorporate inputs for stock volatility and for correlation between stocks within a basket. The probability-weighted expected option payoff generated is then discounted using market standard discounted cash flow models using a rate that reflects the appropriate funding rate for that portion of the portfolio. Positions for which inputs are derived from standard market contracts traded in active and observable markets are classified as Level 2. Level 3 positions are those for which volatility, forward or correlation inputs are not observable and are therefore valued using extrapolation of available data, historical dividend, correlation or volatility data, or the equivalent data for a related equity.

*Commodity derivative contracts*

Commodity derivative contracts include forward, swap and option contracts on individual commodities and on commodity indices. Commodity forward and swap contracts are measured using market standard models that use market forward levels on standard instruments. Commodity option contracts are measured using market standard option models that estimate the commodity forward level as described above for commodity forward and swap contracts, incorporating inputs for the volatility of the underlying index or commodity. The option model produces a probability-weighted expected option payoff that is then discounted using market standard discounted cash flow models using a rate that reflects the appropriate funding rate for that portion of the portfolio. For commodity options on baskets of commodities or bespoke commodity indices, the valuation technique also incorporates inputs for the correlation between different commodities or commodity indices. Individual commodity contracts are typically classified as Level 2 because active forward and volatility market data are available.

**Note 24 Fair value measurement (continued)**

### Financial liabilities designated at fair value

*Structured and OTC debt instruments issued*

Structured debt instruments issued are comprised of medium-term notes (MTNs), which are held at fair value under the fair value option. These MTNs are tailored specifically to the holder's risk or investment appetite with structured coupons or payoffs. The risk management and the valuation approaches for these MTNs are closely aligned to the equivalent derivatives business and the underlying risk, and the valuation techniques used for this component are the same as the relevant valuation techniques described above. For example, equity-linked notes should be referenced to equity/index contracts and credit-linked notes should be referenced to credit derivative contacts.

*Other liabilities – amounts due under unit-linked investment contracts*

Unit-linked investment contracts allow investors to invest in a pool of assets through issued investment units. The unit holders are exposed to all risks and rewards associated with the reference asset pool. The financial liability represents the amounts due to unit holders and is equal to the fair value of the reference asset pool. The fair values of investment contract liabilities are determined by reference to the fair value of the corresponding assets. The liabilities themselves are not actively traded, but are mainly referenced to instruments that are and are therefore classified as Level 2.

## f) Transfers between Level 1 and Level 2 in the fair value hierarchy

The amounts provided below reflect transfers between Level 1 and Level 2 for instruments that were held for the entire reporting period.

Assets totaling approximately CHF 0.6 billion, which were mainly comprised of financial investments classified as available-for-sale, primarily corporate and municipal bonds, and financial assets held for trading, were transferred from Level 2 to Level 1 during 2015, generally due to increased levels of trading activity observed within the market. Transfers of financial liabilities from Level 2 to Level 1 during 2015 were not significant.

Assets totaling approximately CHF 0.8 billion, which were mainly comprised of financial assets held for trading, primarily equity instruments and government bills/bonds, and financial investments classified as available-for-sale, mainly corporate and municipal bonds, were transferred from Level 1 to Level 2 during 2015, generally due to diminished levels of trading activity observed within the market. Transfers of financial liabilities from Level 1 to Level 2 during 2015 were not significant.

**Note 24 Fair value measurement (continued)**

## g) Movements of Level 3 instruments

### Significant changes in Level 3 instruments

The table on the following pages presents additional information about Level 3 assets and liabilities measured at fair value on a recurring basis. Level 3 assets and liabilities may be hedged with instruments classified as Level 1 or Level 2 in the fair value hierarchy, and, as a result, realized and unrealized gains and losses included in the table may not include the effect of related hedging activity. Further, the realized and unrealized gains and losses presented within the table are not limited solely to those arising from Level 3 inputs, as valuations are generally derived from both observable and unobservable parameters.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

As of 31 December 2015, financial instruments measured with valuation techniques using significant non-market-observable inputs (Level 3) were mainly comprised of:
- loans (including structured loans);
- structured reverse repurchase and securities borrowing agreements;
- credit derivative contracts;
- equity/index contracts;
- non-structured fixed-rate bonds and
- structured debt instruments issued (equity and credit-linked).

Significant movements in Level 3 instruments during the year ended 31 December 2015 were as follows.

### Financial assets held for trading

Financial assets held for trading decreased to CHF 2.1 billion from CHF 3.5 billion during the year. Issuances of CHF 5.4 billion and purchases of CHF 0.7 billion, mainly comprised of loans and corporate bonds, respectively, were more than offset by sales of CHF 7.6 billion, also primarily comprised of loans and corporate bonds. Transfers into Level 3 during the year amounted to CHF 0.9 billion and were mainly comprised of equity instruments and investment fund units due to decreased observability of the respective equity volatility inputs. Transfers out of Level 3 amounted to CHF 0.5 billion and were primarily comprised of loans, reflecting increased observability of the respective credit spread inputs.

### Financial assets designated at fair value

Financial assets designated at fair value decreased to CHF 3.3 billion from CHF 3.5 billion during the year, mainly reflecting settlements of CHF 1.3 billion, partly offset by issuances of CHF 0.8 billion. Transfers into and out of Level 3 amounted to CHF 0.8 billion and CHF 0.4 billion, respectively.

### Financial investments classified as available-for-sale

Financial investments classified as available-for-sale increased to CHF 0.7 billion from CHF 0.6 billion during the year, primarily due to purchases totaling CHF 0.1 billion.

**Note 24 Fair value measurement (continued)**

Positive replacement values

Positive replacement values decreased to CHF 2.9 billion from CHF 4.4 billion during the year, primarily due to settlements of CHF 2.9 billion, primarily related to credit derivative contracts and equity/index contracts, partly offset by issuances totaling CHF 1.7 billion, also primarily related to credit derivative contracts and equity/index contracts. Transfers into Level 3, totaling CHF 0.7 billion, were mainly comprised of interest rate contracts and equity/index contracts and primarily resulted from changes in the correlation between the portfolios held and the representative market portfolio used to independently verify market data. Transfers out of Level 3, totaling CHF 0.5 billion, were mainly comprised of equity/index contracts and also primarily related to changes in the correlation between the portfolio held and the representative market portfolio used to independently verify market data.

Negative replacement values

Negative replacement values decreased to CHF 3.3 billion from CHF 5.0 billion during the year. Settlements and issuances amounted to CHF 2.2 billion and CHF 1.0 billion, respectively, and were primarily comprised of equity/index contracts. Transfers into and out of Level 3 both amounted to CHF 0.5 billion, and primarily related to changes in the availability of the respective observable equity volatility and credit spread inputs.

Financial liabilities designated at fair value

Financial liabilities designated at fair value decreased to CHF 10.7 billion from CHF 11.9 billion during the year. Issuances of CHF 6.1 billion, primarily comprised of structured debt instruments issued and structured over-the-counter debt instruments, were more than offset by settlements of CHF 6.7 billion, also primarily comprised of structured debt instruments issued and structured over-the-counter debt instruments. Transfers into Level 3, totaling CHF 1.3 billion, were primarily comprised of equity and credit-linked structured debt instruments issued, and mainly related to a reduction in the observable equity volatility inputs and from changes in the respective credit spreads used to determine the fair value of the embedded options in these structures. Transfers out of Level 3, totaling CHF 2.2 billion, were also mainly comprised of equity- and credit-linked structured debt instruments issued, and mainly related to changes in the observable equity volatility inputs and from changes in the respective credit spreads used to determine the fair value of the embedded options in these structures.

## Note 24 Fair value measurement (continued)

### Movements of Level 3 instruments

| CHF billion | Balance as of 31 December 2013 | Total gains / losses included in comprehensive income: Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Other comprehensive income | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Financial assets held for trading** | **4.3** | **(1.6)** | ***(0.9)*** | | **1.4** | **(6.5)** | **5.2** | **0.0** | **1.0** | **(0.5)** | **0.1** |
| *of which:* | | | | | | | | | | | |
| *Corporate bonds and municipal bonds, including bonds issued by financial institutions* | *1.7* | *(0.1)* | *(0.1)* | | *0.9* | *(1.2)* | *0.0* | *0.0* | *0.2* | *(0.2)* | *0.1* |
| *Loans* | *1.0* | *(1.4)* | *(0.8)* | | *0.2* | *(4.1)* | *5.2* | *0.0* | *0.2* | *(0.1)* | *0.1* |
| *Asset-backed securities* | *1.0* | *0.0* | *0.0* | | *0.1* | *(0.7)* | *0.0* | *0.0* | *0.5* | *(0.3)* | *0.0* |
| *Other* | *0.6* | *(0.1)* | *0.0* | | *0.2* | *(0.5)* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* |
| **Financial assets designated at fair value** | **4.4** | **(0.8)** | ***(0.3)*** | | **0.0** | **0.0** | **1.3** | **(1.2)** | **0.0** | **(0.3)** | **0.2** |
| *of which:* | | | | | | | | | | | |
| *Loans (including structured loans)* | *1.1* | *(0.3)* | *(0.2)* | | *0.0* | *0.0* | *0.6* | *(0.2)* | *0.0* | *(0.3)* | *0.0* |
| *Structured reverse repurchase and securities borrowing agreements* | *3.1* | *(0.5)* | *0.0* | | *0.0* | *0.0* | *0.7* | *(1.0)* | *0.0* | *0.0* | *0.1* |
| *Other* | *0.2* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* |
| **Financial investments available-for-sale** | **0.8** | **0.0** | ***0.0*** | **0.0** | **0.1** | **(0.2)** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| **Positive replacement values** | **5.5** | **1.1** | ***0.0*** | | **0.0** | **0.0** | **2.6** | **(5.1)** | **1.1** | **(0.5)** | **(0.2)** |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *3.0* | *0.3* | *(0.8)* | | *0.0* | *0.0* | *1.1* | *(3.2)* | *0.5* | *(0.2)* | *0.1* |
| *Foreign exchange contracts* | *0.9* | *0.1* | *0.1* | | *0.0* | *0.0* | *0.1* | *(0.2)* | *0.0* | *(0.1)* | *(0.3)* |
| *Equity / index contracts* | *1.2* | *0.6* | *0.5* | | *0.0* | *0.0* | *1.3* | *(1.3)* | *0.3* | *(0.2)* | *0.0* |
| *Other* | *0.3* | *0.0* | *0.1* | | *0.0* | *0.0* | *0.2* | *(0.4)* | *0.3* | *(0.1)* | *0.0* |
| **Negative replacement values** | **4.4** | **0.7** | ***(0.6)*** | | **0.0** | **0.0** | **2.5** | **(3.7)** | **1.4** | **(0.5)** | **0.2** |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *2.0* | *0.1* | *(1.2)* | | *0.0* | *0.0* | *1.0* | *(2.4)* | *1.0* | *(0.2)* | *0.3* |
| *Foreign exchange contracts* | *0.5* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* |
| *Equity / index contracts* | *1.5* | *0.4* | *0.4* | | *0.0* | *0.0* | *1.5* | *(1.2)* | *0.3* | *(0.1)* | *0.0* |
| *Other* | *0.5* | *0.2* | *0.3* | | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.1* | *0.0* | *(0.1)* |
| **Financial liabilities designated at fair value** | **12.1** | **0.5** | ***1.3*** | | **0.0** | **0.0** | **7.4** | **(7.4)** | **2.0** | **(3.2)** | **0.5** |
| *of which:* | | | | | | | | | | | |
| *Non-structured fixed-rate bonds* | *1.2* | *0.4* | *0.3* | | *0.0* | *0.0* | *1.9* | *(1.4)* | *0.4* | *(0.4)* | *0.1* |
| *Structured debt instruments issued* | *7.9* | *0.9* | *0.4* | | *0.0* | *0.0* | *3.7* | *(4.2)* | *1.2* | *(2.6)* | *0.4* |
| *Structured over-the-counter debt instruments* | *1.8* | *(0.4)* | *(0.1)* | | *0.0* | *0.0* | *1.4* | *(1.5)* | *0.4* | *(0.2)* | *0.0* |
| *Structured repurchase agreements* | *1.2* | *(0.3)* | *0.7* | | *0.0* | *0.0* | *0.5* | *(0.4)* | *0.0* | *0.0* | *0.0* |

1 Total Level 3 assets as of 31 December 2015 were CHF 9.0 billion (31 December 2014: CHF 12.2 billion). Total Level 3 liabilities as of 31 December 2015 were CHF 14.1 billion (31 December 2014: CHF 17.0 billion).

| Balance as of 31 December 2014 | Total gains / losses included in comprehensive income: Net interest income, net trading income and other income | *of which related to Level 3 instruments held at the end of the reporting period* | Other comprehensive income | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | Balance as of 31 December 2015[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **3.5** | **(0.2)** | ***(0.4)*** | | **0.7** | **(7.6)** | **5.4** | **0.0** | **0.9** | **(0.5)** | **(0.1)** | **2.1** |
| *1.4* | *0.0* | *0.0* | | *0.5* | *(1.0)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *(0.1)* | *0.7* |
| *1.1* | *(0.1)* | *(0.3)* | | *0.1* | *(5.5)* | *5.4* | *0.0* | *0.2* | *(0.3)* | *0.0* | *0.8* |
| *0.6* | *0.0* | *0.0* | | *0.1* | *(0.6)* | *0.0* | *0.0* | *0.2* | *(0.1)* | *0.0* | *0.2* |
| *0.5* | *(0.1)* | *(0.1)* | | *0.1* | *(0.5)* | *0.0* | *0.0* | *0.4* | *0.0* | *0.0* | *0.4* |
| **3.5** | **0.0** | ***0.0*** | | **0.0** | **0.0** | **0.8** | **(1.3)** | **0.8** | **(0.4)** | **(0.1)** | **3.3** |
| *1.0* | *(0.1)* | *(0.1)* | | *0.0* | *0.0* | *0.7* | *(0.2)* | *0.8* | *(0.4)* | *0.0* | *1.7* |
| *2.4* | *0.1* | *0.1* | | *0.0* | *0.0* | *0.1* | *(1.0)* | *0.0* | *0.0* | *(0.1)* | *1.5* |
| *0.1* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* |
| **0.6** | **0.0** | ***0.0*** | **0.0** | **0.1** | **(0.1)** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.7** |
| **4.4** | **(0.4)** | ***(0.1)*** | | **0.0** | **(0.1)** | **1.7** | **(2.9)** | **0.7** | **(0.5)** | **(0.1)** | **2.9** |
| *1.7* | *(0.1)* | *0.2* | | *0.0* | *0.0* | *0.9* | *(1.1)* | *0.1* | *(0.1)* | *(0.1)* | *1.3* |
| *0.6* | *(0.1)* | *0.0* | | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.5* |
| *1.9* | *0.0* | *(0.3)* | | *0.0* | *(0.1)* | *0.7* | *(1.4)* | *0.2* | *(0.3)* | *0.0* | *1.0* |
| *0.3* | *(0.1)* | *(0.1)* | | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.4* | *(0.1)* | *0.0* | *0.1* |
| **5.0** | **(0.4)** | ***0.0*** | | **0.0** | **0.0** | **1.0** | **(2.2)** | **0.5** | **(0.5)** | **(0.1)** | **3.3** |
| *1.7* | *0.3* | *0.6* | | *0.0* | *0.0* | *0.0* | *(0.9)* | *0.3* | *(0.1)* | *0.0* | *1.3* |
| *0.3* | *0.0* | *(0.1)* | | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.2* |
| *2.4* | *(0.4)* | *(0.5)* | | *0.0* | *0.0* | *0.9* | *(1.2)* | *0.1* | *(0.4)* | *(0.1)* | *1.4* |
| *0.6* | *(0.2)* | *(0.1)* | | *0.0* | *0.0* | *0.1* | *0.0* | *0.1* | *0.0* | *(0.1)* | *0.3* |
| **11.9** | **0.6** | ***0.0*** | | **0.0** | **0.0** | **6.1** | **(6.7)** | **1.3** | **(2.2)** | **(0.3)** | **10.7** |
| *2.2* | *(0.1)* | *0.0* | | *0.0* | *0.0* | *1.1* | *(0.2)* | *0.1* | *(0.4)* | *0.0* | *2.6* |
| *7.3* | *0.5* | *0.1* | | *0.0* | *0.0* | *3.8* | *(4.2)* | *1.3* | *(1.9)* | *(0.2)* | *6.7* |
| *1.5* | *0.2* | *(0.1)* | | *0.0* | *0.0* | *1.2* | *(2.0)* | *0.0* | *0.0* | *(0.1)* | *0.8* |
| *0.9* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.0* | *0.0* | *0.0* | *0.6* |

Consolidated financial statements

## Note 24 Fair value measurement (continued)

### h) Valuation of assets and liabilities classified as Level 3

The table on the following pages presents the assets and liabilities recognized at fair value and classified as Level 3, together with the valuation techniques used to measure fair value, the significant inputs used in the valuation technique that are considered unobservable and a range of values for those unobservable inputs.

The range of values represents the highest and lowest level input used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input, but rather the different underlying characteristics of the relevant assets and liabilities. The ranges will therefore vary from period to period and parameter to parameter based on characteristics of the instruments held at each balance sheetdate. Further, the ranges of unobservable inputs may differ across other financial institutions due to the diversity of the products in each firm's inventory.

#### Significant unobservable inputs in Level 3 positions

This section discusses the significant unobservable inputs identified in the table on the following pages and assesses the potential effect that a change in each unobservable input in isolation may have on a fair value measurement, including information to facilitate an understanding of factors that give rise to the input ranges shown. Relationships between observable and unobservable inputs have not been included in the summary below.

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities**

| | Fair value | | | | | | Range of inputs | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 31.12.15 | | 31.12.14 | | |
| *CHF billion* | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 | Valuation technique(s) | Significant unobservable input(s)[1] | **low** | **high** | low | high | unit[1] |
| **Financial assets held for trading / Trading portfolio liabilities, Financial assets / liabilities designated at fair value and Financial investments available-for-sale** | | | | | | | | | | | |
| *Corporate bonds and municipal bonds, including bonds issued by financial institutions* | ***0.7*** | *1.4* | ***0.1*** | *0.1* | Relative value to market comparable | Bond price equivalent | **0** | **134** | 8 | 144 | points |
| *Traded loans, loans designated at fair value, loan commitments and guarantees* | ***2.6*** | *2.2* | ***0.0*** | *0.0* | Relative value to market comparable | Loan price equivalent | **65** | **100** | 80 | 101 | points |
| | | | | | Discounted expected cash flows | Credit spread | **30** | **252** | 37 | 138 | basis points |
| | | | | | Market comparable and securitization model | Discount margin / spread | **1** | **14** | 0 | 13 | % |
| | | | | | Mortality dependent cash flow | Volatility of mortality[2] | | | 270 | 280 | % |
| *Investment fund units[3]* | ***0.3*** | *0.5* | ***0.0*** | *0.0* | Relative value to market comparable | Net asset value | | | | | |
| *Asset-backed securities* | ***0.2*** | *0.6* | ***0.0*** | *0.0* | Discounted cash flow projection | Constant prepayment rate | **0** | **18** | 0 | 18 | % |
| | | | | | | Discount margin / spread | **0** | **12** | 0 | 22 | % |
| | | | | | Relative value to market comparable | Bond price equivalent | **1** | **92** | 0 | 102 | points |
| *Equity instruments[3]* | ***0.6*** | *0.5* | ***0.0*** | *0.0* | Relative value to market comparable | Price | | | | | |
| *Structured (reverse) repurchase agreements* | ***1.5*** | *2.4* | ***0.6*** | *0.9* | Discounted expected cash flows | Funding spread | **18** | **183** | 10 | 163 | basis points |
| *Financial assets for unit-linked investment contracts[3]* | ***0.1*** | *0.1* | | | Relative value to market comparable | Price | | | | | |
| *Structured debt instruments and non-structured fixed-rate bonds[4]* | | | ***10.1*** | *11.0* | | | | | | | |

## Note 24 Fair value measurement (continued)

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities (continued)**

| | Fair value | | | | | | Range of inputs | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 31.12.15 | | 31.12.14 | | |
| CHF billion | 31.12.15 | 31.12.14 | 31.12.15 | 31.12.14 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | low | high | unit[1] |
| **Replacement values** | | | | | | | | | | | |
| *Interest rate contracts* | *0.1* | *0.2* | *0.3* | *0.6* | Option model | Volatility of interest rates | 16 | 130 | 13 | 94 | % |
| | | | | | | Rate-to-rate correlation | 84 | 94 | 84 | 94 | % |
| | | | | | | Intra-curve correlation | 36 | 94 | 50 | 94 | % |
| | | | | | Discounted expected cash flows | Constant prepayment rate | 0 | 3 | 0 | 3 | % |
| *Credit derivative contracts* | *1.3* | *1.7* | *1.3* | *1.7* | Discounted expected cash flow based on modeled defaults and recoveries | Credit spreads | 1 | 1,163 | 0 | 963 | basis points |
| | | | | | | Upfront price points | 8 | 25 | 15 | 83 | % |
| | | | | | | Recovery rates | 0 | 95 | 0 | 95 | % |
| | | | | | | Credit index correlation | 10 | 85 | 10 | 85 | % |
| | | | | | | Discount margin / spread | 1 | 72 | 0 | 32 | % |
| | | | | | | Credit pair correlation | 57 | 94 | 57 | 94 | % |
| | | | | | Discounted cash flow projection on underlying bond | Constant prepayment rate | 0 | 15 | 1 | 16 | % |
| | | | | | | Constant default rate | 0 | 9 | 0 | 9 | % |
| | | | | | | Loss severity | 0 | 100 | 0 | 100 | % |
| | | | | | | Discount margin / spread | 1 | 15 | 1 | 33 | % |
| | | | | | | Bond price equivalent | 0 | 104 | 12 | 100 | points |
| *Foreign exchange contracts* | *0.5* | *0.6* | *0.2* | *0.3* | Option model | Rate-to-FX correlation | (57) | 60 | (57) | 60 | % |
| | | | | | | FX-to-FX correlation | (70) | 80 | (70) | 80 | % |
| | | | | | Discounted expected cash flows | Constant prepayment rate[2] | | | 0 | 13 | % |
| *Equity / index contracts* | *1.0* | *1.9* | *1.4* | *2.4* | Option model | Equity dividend yields | 0 | 57 | 0 | 15 | % |
| | | | | | | Volatility of equity stocks, equity and other indices | 0 | 143 | 1 | 130 | % |
| | | | | | | Equity-to-FX correlation | (44) | 82 | (55) | 84 | % |
| | | | | | | Equity-to-equity correlation | 3 | 99 | 18 | 99 | % |
| **Non-financial assets[3,5]** | *0.1* | *0.2* | | | Relative value to market comparable | Price | | | | | |
| | | | | | Discounted cash flow projection | Projection of cost and income related to the particular property | | | | | |
| | | | | | | Discount rate | | | | | |
| | | | | | | Assessment of the particular property's condition | | | | | |

1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par. For example, 100 points would be 100% of par. 2 The range of inputs is not disclosed as of 31 December 2015 because this unobservable input parameter was not significant to the respective valuation technique as of that date. 3 The range of inputs is not disclosed due to the dispersion of possible values given the diverse nature of the investments. 4 Valuation techniques, significant unobservable inputs and the respective input ranges for structured debt instruments and non-structured fixed-rate bonds are the same as the equivalent derivative or structured financing instruments presented elsewhere in this table. 5 Non-financial assets include other assets which primarily consist of assets held for sale.

## Note 24 Fair value measurement (continued)

*Bond price equivalent:* Where market prices are not available for a bond, fair value is measured by comparison with observable pricing data from similar instruments. Factors considered when selecting comparable instruments include credit quality, maturity and industry of the issuer. Fair value may be measured either by a direct price comparison or by conversion of an instrument price into a yield (either as an outright yield or as a spread to LIBOR). Bond prices are expressed as points of the nominal, where 100 represents a fair value equal to the nominal value (i.e., par).

For corporate and municipal bonds, the range of 0–134 points represents the range of prices from reference issuances used in determining fair value. Bonds priced at 0 are distressed to the point that no recovery is expected, while prices significantly in excess of 100 or par relate to inflation-linked or structured issuances that pay a coupon in excess of the market benchmark as of the measurement date. The weighted average price is approximately 94 points, with a majority of positions concentrated around this price.

For asset-backed securities, the bond price range of 1–92 points represents the range of prices for reference securities used in determining fair value. An instrument priced at 0 is not expected to pay any principal or interest, while an instrument priced close to 100 points is expected to be repaid in full as well as pay a yield close to the market yield. The weighted average price for Level 3 assets within this portion of the Level 3 portfolio is 72 points.

For credit derivatives, the bond price range of 0–104 points represents the range of prices used for reference instruments that are typically converted to an equivalent yield or credit spread as part of the valuation process. The range is comparable to that for corporate and asset-backed issuances described above.

*Loan price equivalent:* Where market prices are not available for a traded loan, fair value is measured by comparison with observable pricing data for similar instruments. Factors considered when selecting comparable instruments include industry segment, collateral quality, maturity and issuer-specific covenants. Fair value may be measured either by a direct price comparison or by conversion of an instrument price into a yield. The range of 65–100 points represents the range of prices derived from reference issuances of a similar credit quality used in measuring fair value for loans classified as Level 3. Loans priced at 0 are distressed to the point that no recovery is expected, while a current price of 100 represents a loan that is expected to be repaid in full. The weighted average is approximately 93 points.

*Credit spread:* Valuation models for many credit derivatives require an input for the credit spread, which is a reflection of the credit quality of the associated referenced underlying. The credit spread of a particular security is quoted in relation to the yield on a benchmark security or reference rate, typically either US Treasury or LIBOR, and is generally expressed in terms of basis points. An increase/(decrease) in credit spread will increase/(decrease) the value of credit protection offered by CDS and other credit derivative products. The income statement impact from such changes depends on the nature and direction of the positions held. Credit spreads may be negative where the asset is more creditworthy than the benchmark against which the spread is calculated. A wider credit spread represents decreasing creditworthiness. The ranges of 30–252 basis points in loans and 1–1163 basis points in credit derivatives represents a diverse set of underlyings, with the lower end of the range representing credits of the highest quality (e.g., approximating the risk of LIBOR) and the upper end of the range representing greater levels of credit risk.

*Constant prepayment rate:* A prepayment rate represents the amount of unscheduled principal repayment for a pool of loans. The prepayment estimate is based on a number of factors, such as historical prepayment rates for repaid and existing loans with similar characteristics and the future economic outlook, considering factors including, but not limited to, future interest rates. In general, a significant increase/(decrease) in this unobservable input in isolation would result in a significantly higher/(lower) fair value for bonds trading at a discount. For bonds trading at a premium the reverse would apply, with a decrease in fair value when the constant prepayment rate increases. However, in certain cases the effect of a change in prepayment speed on instrument price is more complicated and depends on both the precise terms of the securitization and the position of the instrument within the securitization capital structure.

For asset-backed securities, the range of 0–18% represents inputs across various classes of asset-backed securities. Securities with an input of 0% typically reflect no current prepayment behavior with respect to the underlying collateral, and with no expectation of this changing in the immediate future, while the high range of 18% relates to securities that are currently experiencing high prepayments. Different classes of asset-backed securities typically show different ranges of prepayment characteristics depending on a combination of factors, including the borrowers' ability to refinance, prevailing refinancing rates, and the quality or characteristics of the underlying loan collateral pools. The weighted average constant prepayment rate for the portfolio is 5.0%.

**Note 24 Fair value measurement (continued)**

For credit derivatives, the range of 0–15% represents the input assumption for credit derivatives on asset-backed securities. The range is driven in a similar manner to that for asset-backed securities.

For interest rate contracts, the range of 0–3% represents the prepayment assumptions on securitizations underlying the BGS portfolio.

*Constant default rate (CDR):* The CDR represents the percentage of outstanding principal balances in the pool that are projected to default and liquidate and is the annualized rate of default for a group of mortgages or loans. The CDR estimate is based on a number of factors, such as collateral delinquency rates in the pool and the future economic outlook. In general, a significant increase/(decrease) in this unobservable input in isolation would result in significantly lower/(higher) cash flows for the deal (and thus lower/(higher) valuations). However, different instruments within the capital structure can react differently to changes in the CDR rate. Generally, subordinated bonds will decrease in value as CDR increases, but for well protected senior bonds an increase in CDR may cause an increase in price. In addition, the presence of a guarantor wrap on the collateral pool of a security may result in notes at the junior end of the capital structure experiencing a price increase with an increase in the default rate.

The range of 0–9% for credit derivatives represents the expected default percentage across the individual instruments' underlying collateral pools.

*Loss severity/recovery rate:* The projected loss severity/recovery rate reflects the estimated loss that will be realized given expected defaults. Loss severity is generally applied to collateral within asset-backed securities while the recovery rate is the analogous pricing input for corporate or sovereign credits. Recovery is the reverse of loss severity, so a 100% recovery rate is the equivalent of a 0% loss severity. Increases in loss severity levels/decreases in recovery rates will result in lower expected cash flows into the structure upon the default of the instruments. In general, a significant decrease/(increase) in the loss severity in isolation would result in significantly higher/(lower) fair value for the respective asset-backed securities. The impact of a change in recovery rate on a credit derivative position will depend on whether credit protection has been bought or sold.

Loss severity is ultimately driven by the value recoverable from collateral held after foreclosure occurs relative to the loan principal and possibly unpaid interest accrued at that point. For credit derivatives, the loss severity range of 0–100% applies to derivatives on asset-backed securities. The recovery rate range of 0–95% represents a wide range of expected recovery levels on credit derivative contracts within the Level 3 portfolio.

*Discount margin (DM) spread:* The DM spread represents the discount rates used to present value cash flows of an asset to reflect the market return required for uncertainty in the estimated cash flows. DM spreads are a rate or rates applied on top of a floating index (e.g., LIBOR) to discount expected cash flows. Generally, a decrease/(increase) in the unobservable input in isolation would result in a significantly higher/(lower) fair value.

The different ranges represent the different discount rates across loans (1–14%), asset-backed securities (0–12%) and credit derivatives (1–72%). The high end of the range relates to securities that are priced very low within the market relative to the expected cash flow schedule. This indicates that the market is pricing an increased risk of credit loss into the security that is greater than what is being captured by the expected cash flow generation process. The low ends of the ranges are typical of funding rates on better quality instruments. For asset-backed securities the weighted average DM is 2.7% and for loans the average effective DM is 2.4%.

*Equity dividend yields:* The derivation of a forward price for an individual stock or index is important for measuring fair value for forward or swap contracts and for measuring fair value using option pricing models. The relationship between the current stock price and the forward price is based on a combination of expected future dividend levels and payment timings, and, to a lesser extent, the relevant funding rates applicable to the stock in question. Dividend yields are generally expressed as an annualized percentage of the share price with the lowest limit of 0% representing a stock that is not expected to pay any dividend. The dividend yield and timing represents the most significant parameter in determining fair value for instruments that are sensitive to an equity forward price. The range of 0–57% reflects the expected range of dividend rates for the portfolio.

*Volatility:* Volatility measures the variability of future prices for a particular instrument and is generally expressed as a percentage, where a higher number reflects a more volatile instrument for which future price movements are more likely to occur. The minimum level of volatility is 0% and there is no theoretical maximum. Volatility is a key input into option models, where it is used to derive a probability-based distribution of future prices for the underlying instrument. The effect of volatility on individual positions within the portfolio is driven primarily by whether the option contract is a long or short position. In most cases, the fair value of an option increases as a result of an increase in volatility and is reduced by a decrease in volatility. Generally, volatility used in the measurement of fair value is derived from active market option prices (referred to as implied volatility). A key feature of implied volatility is the volatility "smile" or "skew," which represents the effect of pricing options of different option strikes at different implied volatility levels.

**Note 24 Fair value measurement (continued)**

- Volatility of interest rates – the range of 16–130% reflects the range of unobservable volatilities across different currencies and related underlying interest rate levels. Volatilities of low interest rates tend to be much higher than volatilities of high interest rates. In addition, different currencies may have significantly different implied volatilities.
- Volatility of equity stocks, equity and other indices – the range of 1–143% reflects the range of underlying stock volatilities.

*Correlation:* Correlation measures the inter-relationship between the movements of two variables. It is expressed as a percentage between -100% and +100%, where +100% represents perfectly correlated variables (meaning a movement of one variable is associated with a movement of the other variable in the same direction), and -100% implies the variables are inversely correlated (meaning a movement of one variable is associated with a movement of the other variable in the opposite direction). The effect of correlation on the measurement of fair value depends on the specific terms of the instruments being valued, due to the range of different payoff features within such instruments.
- Rate-to-rate correlation – the correlation between interest rates of two separate currencies. The range of 84–94% results from the different pairs of currency involved.
- Intra-curve correlation – the correlation between different tenor points of the same yield curve. Correlations are typically fairly high, as reflected by the range of 36–94%.
- Credit index correlation of 10–85% reflects the implied correlation derived from different indices across different parts of the benchmark index capital structure. The input is particularly important for bespoke and Level 3 index tranches.
- Credit pair correlation is particularly important for first to default credit structures. The range of 57–94% reflects the difference between credits with low correlation and similar highly correlated credits.
- Rate-to-FX correlation – captures the correlation between interest rates and FX rates. The range for the portfolio is (57)–60%, which represents the relationship between interest rates and foreign exchange levels. The signage on such correlations depends on the quotation basis of the underlying FX rate (e.g., EUR/USD and USD/EUR correlations to the same interest rate will have opposite signs).
- FX-to-FX correlation is particularly important for complex options that incorporate different FX rates in the projected payoff. The range of (70)–80% reflects the underlying characteristics across the main FX pairs to which UBS AG has exposure.
- Equity-to-FX correlation is important for equity options based on a currency different than the currency of the underlying stock. The range of (44)–82% represents the range of the relationship between underlying stock and foreign exchange volatilities.
- Equity-to-equity correlation is particularly important for complex options that incorporate, in some manner, different equities in the projected payoff. The closer the correlation is to 100%, the more related one equity is to another. For example, equities with a very high correlation could be from different parts of the same corporate structure. The range of 3–99% reflects this.

*Funding spread:* Structured financing transactions are valued using synthetic funding curves that best represent the assets that are pledged as collateral for the transactions. They are not representative of where UBS AG can fund itself on an unsecured basis, but provide an estimate of where UBS AG can source and deploy secured funding with counterparties for a given type of collateral. The funding spreads are expressed in terms of basis points over or under LIBOR, and if funding spreads widen this increases the impact of discounting. The range of 18–183 basis points for both structured repurchase agreements and structured reverse repurchase agreements represents the range of asset funding curves, where wider spreads are due to a reduction in liquidity of underlying collateral for funding purposes.

A small proportion of structured debt instruments and non-structured fixed-rate bonds within financial liabilities designated at fair value had an exposure to funding spreads that was longer in duration than the actively traded market. Such positions are within the range of 18–183 basis points reported above.

*Upfront price points:* These are a component in the price quotation of credit derivative contracts, whereby the overall fair value price level is split between the credit spread (as described above) and a component that is quoted and settled upfront on transacting a new contract. This latter component is referred to as upfront price points and represents the difference between the credit spread paid as protection premium on a current contract versus a small number of standard contracts defined by the market. Distressed credit names frequently trade and quote CDS protection only in upfront points rather than as a running credit spread. An increase/(decrease) in upfront points will increase/(decrease) the value of credit protection offered by CDS and other credit derivative products. The effect of increases or decreases in upfront price points depends on the nature and direction of the positions held. Upfront price points may be negative where a contract is quoting for a narrower premium than the market standard, but are generally positive, reflecting an increase in credit premium required by the market as creditworthiness deteriorates. The range of 8–25% within the table represents the variety of current market credit spread levels relative to the benchmarks used as a quotation basis. Upfront points of 25% represent a distressed credit.

**Note 24 Fair value measurement (continued)**

## i) Sensitivity of fair value measurements to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible alternative assumptions would change fair value significantly, and the estimated effect thereof. As of 31 December 2015, the total favorable and unfavorable effects of changing one or more of the unobservable inputs to reflect reasonably possible alternative assumptions for financial instruments classified as Level 3 were CHF 0.8 billion and CHF 0.6 billion, respectively (31 December 2014: CHF 1.0 billion and CHF 0.8 billion, respectively).

The table shown presents the favorable and unfavorable effects for each class of financial assets and liabilities for which the potential change in fair value is considered significant. The sensitivity data presented represent an estimation of valuation uncertainty based on reasonably possible alternative values for Level 3 inputs at the balance sheet date and do not represent the estimated effect of stress scenarios. Typically, these financial assets and liabilities are sensitive to a combination of inputs from Levels 1–3. Although well-defined interdependencies may exist between Levels 1–2 and Level 3 parameters (e.g., between interest rates, which are generally Level 1 or Level 2, and prepayments, which are generally Level 3), these have not been incorporated in the table. Further, direct inter-relationships between the Level 3 parameters discussed below are not a significant element of the valuation uncertainty.

Sensitivity data are estimated using a number of techniques including the estimation of price dispersion among different market participants, variation in modeling approaches and reasonably possible changes to assumptions used within the fair value measurement process. The sensitivity ranges are not always symmetrical around the fair values as the inputs used in valuations are not always precisely in the middle of the favorable and unfavorable range.

Sensitivity data are determined at a product or parameter level and then aggregated assuming no diversification benefit. The calculated sensitivity is applied to both the outright position and any related Level 3 hedge. The main interdependencies across different Level 3 products to a single unobservable input parameter have been included in the basis of netting exposures within the calculation. Aggregation without allowing for diversification involves the simple summation of individual results with the total sensitivity, therefore representing the impact of all unobservable inputs which, if moved to a reasonably possible favorable or unfavorable level at the same time, would result in a significant change in the valuation. Diversification would incorporate estimated correlations across different sensitivity results and, as such, would result in an overall sensitivity that would be less than the sum of the individual component sensitivities. UBS AG believes that, while there are diversification benefits within the portfolios representing these sensitivity numbers, they are not significant to this analysis.

**Sensitivity of fair value measurements to changes in unobservable input assumptions**

| | 31.12.15 | | 31.12.14 | |
|---|---|---|---|---|
| *CHF million* | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] |
| Government bills / bonds | 0 | (1) | 10 | (1) |
| Corporate bonds and municipal bonds, including bonds issued by financial institutions | 24 | (25) | 33 | (41) |
| Traded loans, loans designated at fair value, loan commitments and guarantees | 88 | (28) | 103 | (63) |
| Asset-backed securities | 7 | (6) | 16 | (12) |
| Equity instruments | 166 | (74) | 105 | (42) |
| Interest rate derivative contracts, net | 107 | (67) | 106 | (58) |
| Credit derivative contracts, net | 174 | (196) | 248 | (277) |
| Foreign exchange derivative contracts, net | 33 | (28) | 35 | (32) |
| Equity / index derivative contracts, net | 61 | (57) | 82 | (83) |
| Structured debt instruments issued and non-structured fixed-rate bonds | 136 | (146) | 202 | (199) |
| Other | 14 | (13) | 23 | (17) |
| **Total** | 809 | (640) | 965 | (824) |

1 Of the total favorable changes, CHF 164 million as of 31 December 2015 (31 December 2014: CHF 116 million) related to financial investments available-for-sale. Of the total unfavorable changes, CHF 71 million as of 31 December 2015 (31 December 2014: CHF 56 million) related to financial investments available-for-sale.

## Note 24 Fair value measurement (continued)

### j) Financial instruments not measured at fair value

The table below provides the estimated fair values of financial instruments not measured at fair value.

**Financial instruments not measured at fair value**

| | 31.12.15 | | | | | 31.12.14 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Carrying value | Fair value | | | | Carrying value | Fair value | | | |
| *CHF billion* | Total | Total | Level 1 | Level 2 | Level 3 | Total | Total | Level 1 | Level 2 | Level 3 |
| **Assets** | | | | | | | | | | |
| Cash and balances with central banks | 91.3 | 91.3 | 91.3 | 0.0 | 0.0 | 104.1 | 104.1 | 104.1 | 0.0 | 0.0 |
| Due from banks | 11.9 | 11.9 | 11.4 | 0.5 | 0.0 | 13.3 | 13.3 | 12.6 | 0.7 | 0.0 |
| Cash collateral on securities borrowed | 25.6 | 25.6 | 0.0 | 25.6 | 0.0 | 24.1 | 24.1 | 0.0 | 24.1 | 0.0 |
| Reverse repurchase agreements | 67.9 | 67.9 | 0.0 | 65.8 | 2.1 | 68.4 | 68.4 | 0.0 | 66.5 | 2.0 |
| Cash collateral receivables on derivative instruments | 23.8 | 23.8 | 0.0 | 23.8 | 0.0 | 31.0 | 31.0 | 0.0 | 31.0 | 0.0 |
| Loans | 312.7 | 314.9 | 0.0 | 170.9 | 143.9 | 316.0 | 318.6 | 0.0 | 186.6 | 131.9 |
| Other assets | 20.1 | 20.1 | 0.0 | 20.1 | 0.0 | 21.3 | 21.2 | 0.0 | 21.2 | 0.0 |
| **Liabilities** | | | | | | | | | | |
| Due to banks | 11.8 | 11.8 | 10.4 | 1.4 | 0.0 | 10.5 | 10.5 | 9.6 | 0.9 | 0.0 |
| Cash collateral on securities lent | 8.0 | 8.0 | 0.0 | 8.0 | 0.0 | 9.2 | 9.2 | 0.0 | 9.2 | 0.0 |
| Repurchase agreements | 9.7 | 9.7 | 0.0 | 9.6 | 0.0 | 11.8 | 11.8 | 0.0 | 11.6 | 0.2 |
| Cash collateral payables on derivative instruments | 38.3 | 38.3 | 0.0 | 38.3 | 0.0 | 42.4 | 42.4 | 0.0 | 42.4 | 0.0 |
| Due to customers | 402.5 | 402.8 | 0.0 | 402.8 | 0.0 | 411.0 | 411.0 | 0.0 | 411.0 | 0.0 |
| Debt issued | 82.2 | 84.4 | 0.0 | 78.4 | 6.0 | 91.2 | 94.3 | 0.0 | 88.5 | 5.8 |
| Other liabilities | 52.1 | 52.1 | 0.0 | 52.1 | 0.0 | 46.0 | 46.0 | 0.0 | 46.0 | 0.0 |
| **Guarantees / Loan commitments** | | | | | | | | | | |
| Guarantees[1] | 0.0 | (0.1) | 0.0 | 0.0 | (0.1) | 0.0 | (0.1) | 0.0 | 0.0 | (0.1) |
| Loan commitments | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

1 The carrying value of guarantees represented a liability of CHF 0.0 billion as of 31 December 2015 (31 December 2014: CHF 0.0 billion). The estimated fair value of guarantees represented an asset of CHF 0.1 billion as of 31 December 2015 (31 December 2014: CHF 0.1 billion).

**Note 24 Fair value measurement (continued)**

The fair values included in the table on the previous page were calculated for disclosure purposes only. The fair value valuation techniques and assumptions described below relate only to the fair value of UBS AG's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimation, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another. The following principles were applied when determining fair value estimates for financial instruments not measured at fair value:

- For financial instruments with remaining maturities greater than three months, the fair value was determined from quoted market prices, if available.
- Where quoted market prices were not available, the fair values were estimated by discounting contractual cash flows using current market interest rates or appropriate yield curves for instruments with similar credit risk and maturity. These estimates generally include adjustments for counterparty credit risk or UBS AG's own credit.
- For short-term financial instruments with remaining maturities of three months or less, the carrying amount, which is net of credit loss allowances, is generally considered a reasonable estimate of fair value. The following financial instruments not measured at fair value had remaining maturities of three months or less as of 31 December 2015: 100% of cash and balances with central banks, 96% of amounts due from banks, 100% of cash collateral on securities borrowed, 87% of reverse repurchase agreements, 100% of cash collateral receivables on derivatives, 52% of loans, 88% of amounts due to banks, 87% of cash collateral on securities lent, 96% of repurchase agreements, 100% of cash collateral payable on derivatives, 96% of amount due to customers and 18% of debt issued.
- The fair value estimates for repurchase and reverse repurchase agreements with variable and fixed interest rates, for all maturities, include the valuation of the interest rate component of these instruments. Credit and debit valuation adjustments have not been included in the valuation due to the short-term nature of these instruments.
- The estimated fair values of off-balance sheet financial instruments are based on market prices for similar facilities and guarantees. Where this information is not available, fair value is estimated using discounted cash flow analysis.

## Note 25 Restricted and transferred financial assets

This Note provides information on restricted financial assets (Note 25a), transfers of financial assets (Note 25b and 25c) and financial assets which are received as collateral with the right to resell or repledge these assets (Note 25d).

### a) Restricted financial assets

Restricted financial assets consist of assets pledged as collateral against an existing liability or contingent liability and other assets that are otherwise explicitly restricted such that they cannot be used to secure funding.

Financial assets are mainly pledged as collateral in securities lending transactions, in repurchase transactions, against loans from Swiss mortgage institutions and in connection with the issuance of covered bonds. UBS AG generally enters into repurchase and securities lending arrangements under standard market agreements, with a market-based haircut applied to the collateral, which results in the associated liabilities having a carrying value below the carrying value of the assets. Pledged mortgage loans serve as collateral for existing liabilities against Swiss central mortgage institutions and for existing covered bond issuances of CHF 16,727 million as of 31 December 2015 (31 December 2014: CHF 21,644 million).

Other restricted financial assets include assets protected under client asset segregation rules, assets held by UBS AG's insurance entities to back related liabilities to the policy holders, assets held in certain jurisdictions to comply with explicit minimum local asset maintenance requirements and assets held in consolidated bankruptcy remote entities such as certain investment funds and other structured entities. The carrying value of the liabilities associated with these other restricted financial assets is generally equal to the carrying value of the assets, with the exception of assets held to comply with local asset maintenance requirements for which the associated liabilities are greater.

UBS AG and its subsidiaries are generally not subject to significant restrictions that would prevent the transfer of dividends and capital between UBS AG and its subsidiaries. However, certain regulated subsidiaries are required to maintain capital and/or liquidity to comply with local regulations and may be subject to prudential limitations by regulators that limit the amount of funds that they can distribute or otherwise transfer. Non-regulated subsidiaries are generally not subject to such requirements and transfer restrictions. However, restrictions can also be the result of different legal, regulatory, contractual, entity or country-specific arrangements and/or requirements.

**Restricted financial assets**

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| **Financial assets pledged as collateral** | | |
| Trading portfolio assets | **57,024** | 61,304 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | ***51,943*** | *56,018* |
| Loans | **24,980** | 27,973 |
| *of which: mortgage loans[1]* | ***24,980*** | *27,973* |
| Financial investments available-for-sale | **632** | 2,868 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | ***6*** | *2,662* |
| **Total financial assets pledged as collateral[2]** | **82,636** | 92,144 |
| **Other restricted financial assets** | | |
| Due from banks | **3,285** | 3,511 |
| Reverse repurchase agreements | **1,099** | 1,896 |
| Trading portfolio assets | **24,388** | 25,567 |
| Cash collateral receivables on derivative instruments | **7,104** | 6,135 |
| Financial investments available-for-sale | **502** | 1,209 |
| Other | **480** | 679 |
| **Total other restricted financial assets** | **36,858** | 38,997 |
| **Total financial assets pledged and other restricted financial assets** | **119,494** | 131,142 |

1 These pledged mortgage loans serve as collateral for existing liabilities against Swiss central mortgage institutions and for existing covered bond issuances. Of these pledged mortgage loans, approximately CHF 4.4 billion for 31 December 2015 (31 December 2014: approximately CHF 4.5 billion) could be withdrawn or used for future liabilities or covered bond issuances without breaching existing collateral requirements. 2 Does not include assets placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes (31 December 2015: CHF 4.9 billion, 31 December 2014: CHF 6.1 billion).

## Note 25 Restricted and transferred financial assets (continued)

### b) Transferred financial assets that are not derecognized in their entirety

The table below presents information for financial assets, which have been transferred but are subject to continued recognition in full, as well as recognized liabilities associated with those transferred assets.

**Transferred financial assets subject to continued recognition in full**

| *CHF million* | 31.12.15 | | 31.12.14 | |
|---|---|---|---|---|
| | Carrying value of transferred assets | Carrying value of associated liabilities recognized on-balance sheet | Carrying value of transferred assets | Carrying value of associated liabilities recognized on-balance sheet |
| Trading portfolio assets transferred which may be sold or repledged by counterparties | 51,943 | 13,146 | 56,018 | 18,289 |
| *relating to securities lending and repurchase agreements in exchange for cash received* | *13,406* | *13,146* | *19,366* | *18,147* |
| *relating to securities lending agreements in exchange for securities received* | *37,097* | *0* | *35,557* | *0* |
| *relating to other financial asset transfers* | *1,440* | *0* | *1,095* | *142* |
| Financial investments available-for-sale transferred which may be sold or repledged by counterparties | 6 | 6 | 2,662 | 2,584 |
| **Total financial assets transferred** | **51,950** | **13,152** | **58,680** | **20,873** |

Transactions in which financial assets are transferred, but continue to be recognized in their entirety on UBS AG's balance sheet include securities lending and repurchase agreements as well as other financial asset transfers. Repurchase and securities lending arrangements are, for the most part, conducted under standard market agreements, and are undertaken with counterparties subject to UBS AG's normal credit risk control processes.

➔ **Refer to Note 1a items 13 and 14 for more information on repurchase agreements and securities lending agreements**

As of 31 December 2015, approximately a quarter of the transferred financial assets were trading portfolio assets transferred in exchange for cash, in which case the associated recognized liability represents the amount to be repaid to counterparties. For securities lending and repurchase agreements, a haircut between 0% and 15% is generally applied to the collateral, which results in associated liabilities having a carrying value below the carrying value of the transferred assets. The counterparties to the associated liabilities presented in the table above have full recourse to UBS AG.

In securities lending arrangements entered into in exchange for the receipt of other securities as collateral, neither the securities received nor the obligation to return them are recognized on UBS AG's balance sheet, as the risks and rewards of ownership are not transferred to UBS AG. In cases where such financial assets received are subsequently sold or repledged in another transaction, this is not considered to be a transfer of financial assets.

Other financial asset transfers primarily include securities transferred to collateralize derivative transactions, for which the carrying value of associated liabilities is not provided in the table above because those replacement values are managed on a portfolio basis across counterparties and product types, and therefore is not a direct relationship between the specific collateral pledged and the associated liability.

Transferred assets other than trading portfolio assets and financial investments available-for-sale which may be sold or repledged by counterparties were not material as of 31 December 2015 and as of 31 December 2014.

Transferred financial assets that are not subject to derecognition in full, but which remain on the balance sheet to the extent of UBS AG's continuing involvement, were not material as of 31 December 2015 and as of 31 December 2014.

## Note 25 Restricted and transferred financial assets (continued)

### c) Transferred financial assets that are derecognized in their entirety with continuing involvement

Continuing involvement in a transferred and fully derecognized financial asset may result from contractual provisions in the transfer agreement or in a separate agreement with the counterparty or a third party entered into in connection with the transfer. The table below provides information on UBS AG's continuing involvement in transferred and fully derecognized financial assets.

**Transferred financial assets that are derecognized in their entirety with continuing involvement**

| CHF million | 31.12.15 | | | | | |
|---|---|---|---|---|---|---|
| | | | | | Gain / (loss) from continuing involvement in transferred and derecognized financial assets | |
| | Balance sheet line item | Carrying amount of continuing involvement | Fair value of continuing involvement | Gain / (loss) recognized at the date of transfer of the financial assets[2] | For the year ended 31.12.15 | Life-to-date 31.12.15 |
| **Type of continuing involvement** | | | | | | |
| Purchased and retained interest in securitization structures | Trading portfolio assets/ Replacement values[1] | 15 | 15 | 8 | 16 | (1,566) |
| **Total** | | 15 | 15 | 8 | 16 | (1,566) |

| CHF million | 31.12.14 | | | | | |
|---|---|---|---|---|---|---|
| | | | | | Gain / (loss) from continuing involvement in transferred and derecognized financial assets | |
| | Balance sheet line item | Carrying amount of continuing involvement | Fair value of continuing involvement | Gain / (loss) recognized at the date of transfer of the financial assets | For the year ended 31.12.14 | Life-to-date 31.12.14 |
| **Type of continuing involvement** | | | | | | |
| Purchased and retained interest in securitization structures | Trading portfolio assets/ Replacement values[1] | (22) | (22) | 22 | 13 | (1,582) |
| **Total** | | (22) | (22) | 22 | 13 | (1,582) |

1 As of 31 December 2015, total purchased and retained interest in securitization structures consisted of trading portfolio assets of CHF 37 million and negative replacement values of CHF 22 million. As of 31 December 2014, total purchased and retained interest in securitization structures consisted of trading portfolio assets of CHF 29 million and negative replacement values of CHF 51 million. 2 Represents gains / (losses) recognized on the date of transfer during the respective reporting period.

#### Purchased and retained interests in securitization vehicles

In cases where UBS AG has transferred assets into securitization vehicles and retained or purchased interests therein, UBS AG has a continuing involvement in those transferred assets. The majority of the retained continuing involvement securitization positions held in the trading portfolio are collateralized debt obligations, US commercial mortgage-backed securities and residential mortgage-backed securities. As a result of losses incurred in previous years, the majority of these continuing involvement positions had a carrying amount of zero as of 31 December 2015. As of 31 December 2015, the maximum exposure to loss related to purchased and retained interests in securitization structures was CHF 55 million compared with CHF 48 million as of 31 December 2014, both mainly related to trading portfolio assets. Undiscounted cash outflows of CHF 41 million may be payable to the transferee in future periods as a consequence of holding the purchased and retained interests. The earliest period in which payment may be required is less than one month. Life-to-date losses presented in the table above only relate to retained interests held as of 31 December 2015.

## Note 25 Restricted and transferred financial assets (continued)

### d) Off-balance-sheet assets received

The table below presents assets received from third parties that can be sold or repledged, that are not recognized on the balance sheet, but that are held as collateral, including amounts that have been sold or repledged.

**Off-balance-sheet assets received**

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Fair value of assets received which can be sold or repledged | **401,511** | 388,855 |
| *received as collateral under reverse repurchase, securities borrowing and lending arrangements, derivative transactions and other transactions*[1] | ***393,839*** | *383,354* |
| *received in unsecured borrowings* | ***7,672*** | *5,502* |
| thereof sold or repledged[2] | **286,757** | 271,963 |
| *in connection with financing activities* | ***241,992*** | *227,515* |
| *to satisfy commitments under short sale transactions* | ***29,137*** | *27,958* |
| *in connection with derivative and other transactions*[1] | ***15,628*** | *16,491* |

1 Includes securities received as initial margin from its clients that UBS AG is required to remit to CCPs, brokers and deposit banks through its exchange-traded derivative (ETD) clearing and execution services. 2 Does not include off-balance sheet securities (31 December 2015: CHF 47.3 billion, 31 December 2014: CHF 37.6 billion) placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes for which there are no associated liabilities or contingent liabilities.

## Note 26 Offsetting financial assets and financial liabilities

UBS AG enters into netting agreements with counterparties to manage the credit risks associated primarily with repurchase and reverse repurchase transactions, securities borrowing and lending, and over-the-counter (OTC) and exchange-traded derivatives (ETD). These netting agreements and similar arrangements generally enable the counterparties to set-off liabilities against available assets received in the ordinary course of business and/or in the event that the counterparty to the transaction is unable to fulfill its contractual obligations. The right of set-off is a legal right to settle or otherwise eliminate all or a portion of an amount due by applying an amount receivable from the same counterparty against it, thus reducing credit exposure.

The table on the following page provides a summary of financial assets subject to offsetting, enforceable master netting arrangements and similar agreements, as well as financial collateral received to mitigate credit exposures for these financial assets. The gross financial assets of UBS AG that are subject to offsetting, enforceable netting arrangements and similar agreements are reconciled to the net amounts presented within the associated balance sheet line, after giving effect to financial liabilities with the same counterparties that have been offset on the balance sheet and other financial assets not subject to an enforceable netting arrangement or similar agreement. Further, related amounts for financial liabilities and collateral received that are not offset on the balance sheet are shown to arrive at financial assets after consideration of netting potential.

UBS AG engages in a variety of counterparty credit mitigation strategies in addition to netting and collateral arrangements. Therefore, the net amounts presented in the tables on the next pages do not purport to represent UBS AG's actual credit exposure.

## Note 26 Offsetting financial assets and financial liabilities (continued)

**Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements**

| | 31.12.15 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Assets subject to netting arrangements | | | | | | Assets not subject to netting arrangements[4] | Total assets | |
| | Netting recognized on the balance sheet | | | Netting potential not recognized on the balance sheet[3] | | | | | |
| *CHF billion* | Gross assets before netting | Netting with gross liabilities[2] | Net assets recognized on the balance sheet | Financial liabilities | Collateral received | Assets after consideration of netting potential | Assets recognized on the balance sheet | Total assets after consideration of netting potential | Total assets recognized on the balance sheet |
| Cash collateral on securities borrowed | 23.9 | 0.0 | 23.9 | (3.1) | (20.9) | 0.0 | 1.6 | 1.6 | 25.6 |
| Reverse repurchase agreements | 117.9 | (62.1) | 55.8 | (4.4) | (51.4) | 0.0 | 12.1 | 12.1 | 67.9 |
| Positive replacement values | 161.9 | (2.5) | 159.3 | (123.0) | (25.5) | 10.8 | 8.1 | 18.9 | 167.4 |
| Cash collateral receivables on derivative instruments[1] | 85.9 | (66.3) | 19.6 | (10.9) | (1.5) | 7.2 | 4.1 | 11.3 | 23.8 |
| Financial assets designated at fair value | 2.4 | 0.0 | 2.4 | 0.0 | (1.8) | 0.6 | 3.4 | 4.0 | 5.8 |
| **Total assets** | **392.1** | **(131.0)** | **261.1** | **(141.3)** | **(101.1)** | **18.7** | **29.3** | **48.0** | **290.5** |

| | 31.12.14 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Assets subject to netting arrangements | | | | | | Assets not subject to netting arrangements[4] | Total assets | |
| | Netting recognized on the balance sheet | | | Netting potential not recognized on the balance sheet[3] | | | | | |
| *CHF billion* | Gross assets before netting | Netting with gross liabilities[2] | Net assets recognized on the balance sheet | Financial liabilities | Collateral received | Assets after consideration of netting potential | Assets recognized on the balance sheet | Total assets after consideration of netting potential | Total assets recognized on the balance sheet |
| Cash collateral on securities borrowed | 22.7 | 0.0 | 22.7 | (1.9) | (20.8) | 0.0 | 1.4 | 1.4 | 24.1 |
| Reverse repurchase agreements | 99.2 | (42.8) | 56.4 | (3.4) | (52.8) | 0.1 | 12.1 | 12.2 | 68.4 |
| Positive replacement values | 249.9 | (3.1) | 246.8 | (198.7) | (30.8) | 17.3 | 10.1 | 27.4 | 257.0 |
| Cash collateral receivables on derivative instruments[1] | 245.7 | (218.4) | 27.4 | (18.8) | (1.6) | 7.0 | 3.6 | 10.6 | 31.0 |
| Financial assets designated at fair value | 3.1 | 0.0 | 3.1 | 0.0 | (3.0) | 0.1 | 1.4 | 1.5 | 4.5 |
| **Total assets** | **620.5** | **(264.2)** | **356.3** | **(222.9)** | **(108.9)** | **24.5** | **28.6** | **53.1** | **384.9** |

1 The net amount of Cash collateral receivables on derivative instruments recognized on the balance sheet includes certain OTC derivatives which are in substance net settled on a daily basis under IAS 32, and ETD which are economically settled on a daily basis. In addition, this balance includes OTC and ETD cash collateral balances which correspond with the cash portion of collateral pledged, reflected on the Negative replacement values line in the table presented on the following page. 2 The logic of the table results in amounts presented in the "Netting with gross liabilities" column corresponding directly to the amounts presented in the "Netting with gross assets" column in the liabilities table presented on the following page. 3 For the purpose of this disclosure, the amounts of financial instruments and cash collateral presented have been capped by the relevant netting agreement so as not to exceed the net amount of financial assets presented on the balance sheet; i.e., over-collateralization, where it exists, is not reflected in the table. 4 Includes assets not subject to enforceable netting arrangements and other out-of-scope items.

## Note 26 Offsetting financial assets and financial liabilities (continued)

The table below provides a summary of financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements, as well as financial collateral pledged to mitigate credit exposures for these financial liabilities. The gross financial liabilities of UBS AG that are subject to offsetting, enforceable netting arrangements and similar agreements are reconciled to the net amounts presented within the associated balance sheet line, after giving effect to financial assets with the same counterparties that have been offset on the balance sheet and other financial liabilities not subject to an enforceable netting arrangement or similar agreement. Further, related amounts for financial assets and collateral pledged that are not offset on the balance sheet are shown to arrive at financial liabilities after consideration of netting potential.

**Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements**

| | 31.12.15 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Liabilities subject to netting arrangements | | | | | | Liabilities not subject to netting arrangements[4] | Total liabilities | |
| | Netting recognized on the balance sheet | | | Netting potential not recognized on the balance sheet[3] | | | | | |
| *CHF billion* | Gross liabilities before netting | Netting with gross assets[2] | Net liabilities recognized on the balance sheet | Financial assets | Collateral pledged | Liabilities after consideration of netting potential | Liabilities recognized on the balance sheet | Total liabilities after consideration of netting potential | Total liabilities recognized on the balance sheet |
| Cash collateral on securities lent | 7.9 | 0.0 | 7.9 | (3.1) | (4.8) | 0.0 | 0.1 | 0.1 | 8.0 |
| Repurchase agreements | 69.0 | (62.1) | 6.9 | (4.4) | (2.5) | 0.0 | 2.8 | 2.8 | 9.7 |
| Negative replacement values | 154.2 | (2.5) | 151.7 | (123.0) | (17.4) | 11.3 | 10.7 | 22.1 | 162.4 |
| Cash collateral payables on derivative instruments[1] | 99.9 | (66.3) | 33.6 | (19.0) | (2.5) | 12.1 | 4.7 | 16.8 | 38.3 |
| Financial liabilities designated at fair value | 3.9 | 0.0 | 3.9 | 0.0 | (0.7) | 3.1 | 59.1 | 62.3 | 63.0 |
| **Total liabilities** | 334.9 | (131.0) | 203.9 | (149.4) | (28.0) | 26.5 | 77.4 | 104.0 | 281.4 |

| | 31.12.14 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Liabilities subject to netting arrangements | | | | | | Liabilities not subject to netting arrangements[4] | Total liabilities | |
| | Netting recognized on the balance sheet | | | Netting potential not recognized on the balance sheet[3] | | | | | |
| *CHF billion* | Gross liabilities before netting | Netting with gross assets[2] | Net liabilities recognized on the balance sheet | Financial assets | Collateral pledged | Liabilities after consideration of netting potential | Liabilities recognized on the balance sheet | Total liabilities after consideration of netting potential | Total liabilities recognized on the balance sheet |
| Cash collateral on securities lent | 8.4 | 0.0 | **8.4** | (1.9) | (6.5) | **0.0** | **0.7** | **0.8** | **9.2** |
| Repurchase agreements | 51.5 | (42.8) | **8.7** | (3.4) | (5.2) | **0.0** | **3.2** | **3.2** | **11.8** |
| Negative replacement values | 243.3 | (3.1) | **240.2** | (198.7) | (21.8) | **19.7** | **13.9** | **33.5** | **254.1** |
| Cash collateral payables on derivative instruments[1] | 256.1 | (218.4) | **37.7** | (25.1) | (2.3) | **10.3** | **4.6** | **14.9** | **42.4** |
| Financial liabilities designated at fair value | 3.8 | 0.0 | **3.8** | 0.0 | (1.4) | **2.4** | **71.5** | **73.9** | **75.3** |
| **Total liabilities** | **563.1** | **(264.2)** | **298.8** | **(229.2)** | **(37.3)** | **32.4** | **93.9** | **126.3** | **392.8** |

1 The net amount of Cash collateral payables on derivative instruments recognized on the balance sheet includes certain OTC derivatives which are in substance net settled on a daily basis under IAS 32, and ETD which are economically settled on a daily basis. In addition, this balance includes OTC and ETD cash collateral balances which correspond with the cash portion of collateral received, reflected on the Positive replacement values line in the table presented on the previous page. 2 The logic of the table results in amounts presented in the "Netting with gross assets" column corresponding directly to the amounts presented in the "Netting with gross liabilities" column in the assets table presented on the previous page. 3 For the purpose of this disclosure, the amounts of financial instruments and cash collateral presented have been capped by the relevant netting agreement so as not to exceed the net amount of financial liabilities presented on the balance sheet; i.e., over-collateralization, where it exists, is not reflected in the table. 4 Includes liabilities not subject to enforceable netting arrangements and other out-of-scope items.

## Note 27 Financial assets and liabilities – additional information

### a) Measurement categories of financial assets and liabilities

The table below provides information about the carrying amounts of individual classes of financial instruments within the measurement categories of financial assets and liabilities as defined in IAS 39 *Financial Instruments: Recognition and Measurement*. Only those assets and liabilities that arefinancial instruments as defined in IAS 32 *Financial Instruments: Presentation* are included in the table below, which causes certain balances to differ from those presented on the balance sheet.

➔ **Refer to Note 24 for more information on how the fair value of financial instruments is determined**

**Measurement categories of financial assets and financial liabilities**

| *CHF million* | 31.12.15 | 31.12.14 |
|---|---|---|
| **Financial assets[1]** | | |
| **Held for trading** | | |
| Trading portfolio assets | 120,405 | 132,392 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *51,943* | *56,018* |
| Debt issued[2] | 106 | 283 |
| Positive replacement values | 167,435 | 256,978 |
| **Total** | 287,946 | 389,653 |
| **Fair value through profit or loss** | | |
| Financial assets designated at fair value | 5,808 | 4,493 |
| **Financial assets at amortized cost** | | |
| Cash and balances with central banks | 91,306 | 104,073 |
| Due from banks | 11,866 | 13,334 |
| Cash collateral on securities borrowed | 25,584 | 24,063 |
| Reverse repurchase agreements | 67,893 | 68,414 |
| Cash collateral receivables on derivative instruments | 23,763 | 30,979 |
| Loans[3] | 312,723 | 315,984 |
| Other assets | 20,139 | 21,332 |
| **Total** | 553,275 | 578,179 |
| **Available-for-sale** | | |
| Financial investments available-for-sale | 62,543 | 57,159 |
| **Total financial assets** | 909,572 | 1,029,483 |
| | | |
| **Financial liabilities** | | |
| **Held for trading** | | |
| Trading portfolio liabilities | 29,137 | 27,958 |
| Debt issued[2] | 236 | 308 |
| Negative replacement values | 162,430 | 254,101 |
| **Total** | 191,803 | 282,367 |
| **Fair value through profit or loss, other** | | |
| Financial liabilities designated at fair value | 62,995 | 75,297 |
| Amounts due under unit-linked investment contracts | 15,718 | 17,643 |
| **Total** | 78,713 | 92,940 |
| **Financial liabilities at amortized cost** | | |
| Due to banks | 11,836 | 10,492 |
| Cash collateral on securities lent | 8,029 | 9,180 |
| Repurchase agreements | 9,653 | 11,818 |
| Cash collateral payables on derivative instruments | 38,282 | 42,372 |
| Due to customers | 402,522 | 410,979 |
| Debt issued | 82,230 | 91,183 |
| Other liabilities | 52,065 | 46,013 |
| **Total** | 604,617 | 622,036 |
| **Total financial liabilities** | 875,133 | 997,343 |

1 As of 31 December 2015, CHF 123 billion of Loans, CHF 0 billion of Due from banks, CHF 1 billion of Reverse repurchase agreements, CHF 30 billion of Financial investments available-for-sale and CHF 3 billion of Financial assets designated at fair value are expected to be recovered or settled after 12 months. As of 31 December 2014, CHF 119 billion of Loans, CHF 0 billion of Due from banks, CHF 1 billion of Reverse repurchase agreements, CHF 35 billion of Financial investments available-for-sale and CHF 4 billion of Financial assets designated at fair value are expected to be recovered or settled after 12 months. 2 Represents the embedded derivative component of structured debt issued for which the fair value option has not been applied and which is presented within Debt issued on the balance sheet. 3 Includes finance lease receivables of CHF 1.1 billion as of 31 December 2015 (31 December 2014: CHF 1.1 billion). Refer to Notes 10 and 33 for more information.

## Note 27 Financial assets and liabilities – additional information (continued)

### b) Maturity analysis of financial liabilities

The contractual maturities for non-derivative and non-trading financial liabilities as of 31 December 2015 are based on the earliest date on which UBS could be contractually required to pay. The total amounts that contractually mature in each time-band are also shown for 31 December 2014. Derivative positions and trading liabilities, predominantly made up of short sale transactions, are assigned to the column *Due within 1 month,* as this provides a conservative reflection of the nature of these trading activities. The contractual maturities may extend over significantly longer periods.

**Maturity analysis of financial liabilities**[1]

| *CHF billion* | Due within 1 month | Due between 1 and 3 months | Due between 3 and 12 months | Due between 1 and 5 years | Due after 5 years | Total |
|---|---|---|---|---|---|---|
| **Financial liabilities recognized on balance sheet**[2] | | | | | | |
| Due to banks | 8.1 | 2.4 | 1.1 | 0.3 | 0.0 | 11.8 |
| Cash collateral on securities lent | 5.7 | 1.3 | 1.0 | | | 8.0 |
| Repurchase agreements | 7.9 | 1.4 | 0.2 | 0.1 | 0.2 | 9.7 |
| Trading portfolio liabilities[3,4] | 29.1 | | | | | 29.1 |
| Negative replacement values[3] | 162.4 | | | | | 162.4 |
| Cash collateral payables on derivative instruments | 38.3 | | | | | 38.3 |
| Financial liabilities designated at fair value[5] | 15.2 | 15.9 | 13.1 | 11.9 | 12.0 | 68.1 |
| Due to customers | 373.3 | 13.4 | 4.8 | 4.1 | 9.7 | 405.3 |
| Debt issued | 5.7 | 9.9 | 16.3 | 36.6 | 22.7 | 91.2 |
| Other liabilities | 66.7 | | | | | 66.7 |
| **Total 31.12.15** | **712.5** | **44.3** | **36.4** | **53.0** | **44.6** | **890.7** |
| Total 31.12.14 | 812.3 | 48.4 | 39.4 | 60.9 | 49.8 | 1,010.9 |
| **Guarantees, commitments and forward starting transactions**[6] | | | | | | |
| Loan commitments | 55.7 | 0.2 | 0.2 | 0.0 | | 56.1 |
| Guarantees | 15.9 | 0.0 | 0.0 | 0.1 | 0.0 | 16.0 |
| **Forward starting transactions** | | | | | | |
| Reverse repurchase agreements | 6.6 | | | | | 6.6 |
| Securities borrowing agreements | 0.0 | | | | | 0.0 |
| **Total 31.12.15** | **78.1** | **0.2** | **0.2** | **0.1** | **0.0** | **78.7** |
| Total 31.12.14 | 78.3 | 0.1 | 0.2 | 0.2 | 0.0 | 78.8 |

1 Non-financial liabilities such as deferred income, deferred tax liabilities, provisions and liabilities on employee compensation plans are not included in this analysis. 2 Except for trading portfolio liabilities and negative replacement values (see footnote 3), the amounts presented generally represent undiscounted cash flows of future interest and principal payments. 3 Carrying value is fair value. Management believes that this best represents the cash flows that would have to be paid if these positions had to be settled or closed out. Refer to Note 14 for undiscounted cash flows of derivatives designated in hedge accounting relationships. 4 Contractual maturities of trading portfolio liabilities are: CHF 27.2 billion due within one month (2014: CHF 26.7 billion), CHF 1.2 billion due between one month and one year (2014: CHF 1.3 billion), and CHF 0.8 billion due between 1 and 5 years (2014: CHF 0 billion). 5 Future interest payments on variable rate liabilities are determined by reference to the applicable interest rate prevailing as of the reporting date. Future principal payments which are variable are determined by reference to the conditions existing at the reporting date. 6 Comprises the maximum irrevocable amount of guarantees, commitments and forward starting transactions.

## Note 27 Financial assets and liabilities – additional information (continued)

### c) Reclassification of financial assets

In 2008 and 2009, certain financial assets were reclassified from *Trading portfolio assets* to *Loans*. On their reclassification date, these assets had fair values of CHF 26 billion and CHF 0.6 billion, respectively.

The reclassification of financial assets reflected UBS's change in intent and ability to hold these financial assets for the foreseeable future rather than for trading in the near term. The financial assets were reclassified using their fair value on the date of the reclassification, which became their new cost basis at that date.

As of 31 December 2015, the carrying value of the remaining reclassified financial assets, which were entirely comprised of municipal auction rate securities, was CHF 0.2 billion (31 December 2014: CHF 0.7 billion), which was equal to the fair value of these assets.

The overall impact on operating profit before tax from reclassifed financial assets for the year ended 31 December 2015 was a profit of CHF 23 million (2014: CHF 84 million). If the financial assets had not been reclassified, the impact on operating profit before tax for the year ended 31 December 2015 would have been a profit of less than CHF 10 million.

### d) Maximum exposure to credit risk of financial assets designated at fair value

Financial assets designated at fair value totaled CHF 5,808 million as of 31 December 2015 (31 December 2014: CHF 4,493 million). Maximum exposure to credit risk from financial assets designated at fair value was CHF 5.6 billion as of 31 December 2015 (31 December 2014: CHF 4.3 billion). The exposure related to structured loans and reverse repurchase and securities borrowing agreements was mitigated by securities collateral of CHF 3.5 billion as of 31 December 2015 (31 December 2014: CHF 3.3 billion).

The maximum exposure to credit risk of loans, but not structured loans, is generally mitigated by credit derivatives or similar instruments. Information regarding these instruments and the exposure which they mitigate is provided in the table below on a notional basis.

Investment fund units designated at fair value do not have a direct exposure to credit risk.

➔ **Refer to Note 24 for more information on financial assets designated at fair value, and to "Maximum exposure to credit risk" in the "Risk management and control" section of this report for more information on collateral related to financial assets designated at fair value**

**Notional amounts of loans designated at fair value and related credit derivatives**

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Loans – notional amount | **687** | 667 |
| Credit derivatives related to loans – notional amount[1] | **630** | 644 |
| Credit derivatives related to loans – fair value[1] | **4** | 1 |

1 Credit derivatives contracts include credit default swaps, total return swaps and similar instruments.

The table below provides the effect on the fair values of loans from changes in credit risk for the periods presented and cumulatively since inception. Similarly, the change in fair value of credit derivatives and similar instruments which are used to hedge these loans is also provided.

**Changes in fair value of loans and related credit derivatives attributable to changes in credit risk**

| | For the year ended | | Cumulative from inception until the year ended | |
|---|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| Changes in fair value of loans designated at fair value, attributable to changes in credit risk[1] | **(3)** | (3) | **(4)** | (2) |
| Changes in fair value of credit derivatives and similar instruments which mitigate the maximum exposure to credit risk of loans designated at fair value[1] | **3** | 3 | **4** | 1 |

1 Current and cumulative changes in the fair value of loans designated at fair value, attributable to changes in their credit risk, are only calculated for those loans outstanding at balance sheet date. Current and cumulative changes in the fair value of credit derivatives hedging such loans include all the derivatives which have been used to mitigate credit risk of these loans since designation at fair value. For loans reported under the fair value option, changes in fair value due to changes in the credit standing of the borrower are calculated using counterparty credit information obtained from independent market sources.

## Note 28 Pension and other post-employment benefit plans

The table below provides information relating to pension costs for defined benefit plans and defined contribution plans. These costs are part of *Personnel expenses*.

**Income statement – expenses related to pension and other post-employment benefit plans**

| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
|---|---|---|---|
| Net periodic pension cost for defined benefit plans | **569** | 467 | 651 |
| *of which: related to major pension plans*[1] | ***546*** | *508* | *638* |
| *of which: Swiss plan* | ***515*** | *458* | *555* |
| *of which: UK plan* | ***18*** | *17* | *24* |
| *of which: other plans* | ***12*** | *33* | *58* |
| *of which: related to post-retirement medical and life insurance plans*[2] | ***4*** | *(36)* | *(11)* |
| *of which: UK plan* | ***1*** | *2* | *2* |
| *of which: US plans* | ***2*** | *(37)* | *(12)* |
| *of which: related to remaining plans and other costs*[3] | ***19*** | *(5)* | *24* |
| Pension cost for defined contribution plans[4] | **239** | 244 | 236 |
| *of which: UK* | ***86*** | *91* | *91* |
| *of which: US* | ***100*** | *91* | *91* |
| *of which: other countries* | ***53*** | *62* | *54* |
| **Total pension and other post-employment benefit plan expenses**[5] | **808** | 711 | 887 |

1 Refer to Note 28a for more information. 2 Refer to Note 28b for more information. 3 Other costs include differences between actual and estimated performance award accruals and net accrued pension costs related to restructuring. 4 Refer to Note 28c for more information. 5 Refer to Note 6.

The table below provides information relating to amounts recognized in other comprehensive income for defined benefit plans.

**Other comprehensive income – gains / (losses) on pension and other post-employment benefit plans**

| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
|---|---|---|---|
| Major pension plans[1] | **339** | (1,456) | 1,168 |
| *of which: Swiss plan* | ***58*** | *(1,032)* | *1,119* |
| *of which: UK plan* | ***317*** | *(168)* | *(65)* |
| *of which: other plans* | ***(35)*** | *(256)* | *115* |
| Post-retirement medical and life insurance plans[2] | **(3)** | (5) | 3 |
| *of which: UK plan* | ***6*** | *(3)* | *2* |
| *of which: US plans* | ***(9)*** | *(2)* | *1* |
| Remaining plans | **(14)** | 7 | 7 |
| Gains / (losses) recognized in other comprehensive income, before tax | **322** | (1,454) | 1,178 |
| Tax (expense) / benefit relating to defined benefit plans recognized in other comprehensive income | **(19)** | 247 | (239) |
| **Gains / (losses) recognized in other comprehensive income, net of tax**[3] | **303** | (1,208) | 939 |

1 Refer to Note 28a for more information. 2 Refer to Note 28b for more information. 3 Refer to the "Statement of comprehensive income".

## Note 28 Pension and other post-employment benefit plans (continued)

The tables below provide information on UBS AG's assets and liabilities with respect to pension and post-employment benefit plans. These are recognized on the balance sheet within *Other assets* and *Other liabilities*.

**Balance sheet – net defined benefit pension and post-employment asset**

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Major pension plans[1] | **50** | 0 |
| *of which: Swiss plan* | ***0*** | *0* |
| *of which: UK plan* | ***50*** | *0* |
| *of which: other plans* | ***0*** | *0* |
| Post-retirement medical and life insurance plans | **0** | 0 |
| *of which: UK plan* | ***0*** | *0* |
| *of which: US plans* | ***0*** | *0* |
| Remaining plans | **0** | 0 |
| **Total net defined benefit pension and post-employment asset[2]** | **50** | 0 |

1 Refer to Note 28a for more information. 2 Refer to Note 18.

**Balance sheet – net defined benefit pension and post-employment liability**

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Major pension plans[1] | **622** | 1,256 |
| *of which: Swiss plan* | ***0*** | *25* |
| *of which: UK plan* | ***0*** | *568* |
| *of which: other plans[2]* | ***622*** | *664* |
| Post-retirement medical and life insurance plans[3] | **84** | 85 |
| *of which: UK plan* | ***25*** | *32* |
| *of which: US plans* | ***59*** | *53* |
| Remaining plans | **30** | 32 |
| **Total net defined benefit pension and post-employment liability[4]** | **736** | 1,374 |

1 Refer to Note 28a for more information. 2 Liability consists of: CHF 315 million related to US plans and CHF 307 million related to German plans (31 December 2014: CHF 297 million related to US plans and CHF 367 million related to German plans). 3 Refer to Note 28b for more information. 4 Refer to Note 23.

## Note 28 Pension and other post-employment benefit plans (continued)

### a) Defined benefit pension plans

UBS AG has established defined benefit pension plans for its employees in various locations, with the major plans located in Switzerland, the UK, the US and Germany. Independent actuarial valuations for the plans in these countries are performed as required.

The overall investment policy and strategy for UBS AG's defined benefit pension plans is guided by the objective of achieving an investment return which, together with contributions, ensures that there will be sufficient assets to pay pension benefits as they fall due while also mitigating the various risks of the plans. For the plans with assets (i.e., funded plans), the investment strategies for the plans are managed under local laws and regulations in each jurisdiction. The actual asset allocation is determined by the governance body with reference to the prevailing current and expected economic and market conditions and in consideration of specific asset class risk in the risk profile. Within this framework, UBS AG ensures that the fiduciaries consider how the asset investment strategy correlates with the maturity profile of the plan liabilities and the respective potential impact on the funded status of the plans, including potential short-term liquidity requirements.

The defined benefit obligation for all of UBS AG's defined benefit pension plans is directly impacted by changes in yields of high-quality corporate bonds in the respective country in which the plan is held, as the applicable discount rate used to determine the defined benefit obligation is based on these yields. For the funded plans, the pension assets are invested in a diversified portfolio of financial assets including real estate, bonds, investment funds and cash across geographic regions to ensure a balance of risk and return to the extent allowed under local pension laws. The market value of these financial assets is not fully correlated to changes in high-quality corporate bond yields. This results in volatility in the net asset/liability position for each plan. Specific asset-liability matching strategies for each pension plan are independently determined by the responsible governance body in each country. The net asset/liability volatility for each plan is dependent on the specific financial assets chosen by each plan's fiduciaries. For certain pension plans, a liability-driven investment approach is applied to a portion of the plan assets to reduce potential volatility.

#### Swiss pension plan

The Swiss pension plan covers employees of UBS AG and employees of companies having close economic or financial ties with UBS AG and exceeds the minimum benefit requirements under Swiss pension law.

Contributions to the pension plan are paid by the employer and the employees. The Swiss pension plan allows employees a choice with regard to the level of contributions paid by them. Employee contributions are calculated as a percentage of the contributory salary and are deducted monthly. The percentages deducted from salary depend on age and choice of contribution category and vary between 1% and 13.5% of contributory base salary and between 0% and 9% of contributory variable compensation. Depending on the age of the employee, UBS AG pays a contribution that ranges between 6.5% and 27.5% of contributory base salary and between 3.6% and 9% of contributory variable compensation. UBS AG also pays risk contributions which are used to finance benefits paid out in the event of death and disability, as well as to finance bridging pensions.

The plan benefits include retirement benefits and disability, death and survivor pensions. The pension plan offers to members at the normal retirement age of 64 a choice between a lifetime pension with or without full restitution and a partial or full lump sum payment. Members can draw early retirement benefits starting from the age of 58. Since 2015, employees have the possibility to make additional purchases of benefits to fund early retirement benefits (Plan 58+).

The payable pension amount is a result of the conversion rate applied on the accumulated balance of the individual plan participant's pension account at the retirement date. The accumulated balance of each individual plan participant's pension account is based on credited vested benefits transferred from previous employers, purchases of benefits and the employee and employer contributions that have been made to the pension account of each individual plan participant, as well as the interest accrued on the accumulated balance. The interest rate accrued is defined annually by the Pension Foundation Board.

Although the Swiss pension plan is based on a defined contribution promise under Swiss pension law, it is accounted for as a defined benefit plan under IAS 19, primarily because of the obligation to accrue interest on the pension accounts and the payment of lifetime pensions. The actuarial assumptions used for the Swiss pension plan are based on the Swiss economic environment.

➔ **Refer to Note 1a item 24 for a description of the accounting policy for defined benefit pension plans**

**Note 28 Pension and other post-employment benefit plans (continued)**

The Swiss pension plan is governed by the Pension Foundation Board as required by Swiss pension law and the responsibilities of this board are defined by Swiss pension law and by the plan rules. According to Swiss pension law, a temporary limited underfunding is permitted. However, should an underfunded situation occur, the Pension Foundation Board is required to take the necessary measures to ensure that full funding can be expected to be restored within a maximum period of ten years. Under Swiss pension law, if a Swiss pension plan became significantly underfunded on a Swiss pension law basis, then additional employer and employee contributions could be required. In these situations, the risk is shared between employer and employees, and the employer is not legally obliged to cover more than 50% of the additional contributions required. The Swiss pension plan has a technical funding ratio under Swiss pension law of 123.3% as of 31 December 2015 (31 December 2014: 123.7%).

The investment strategy of the Swiss plan is implemented based on a multi-level investment and risk management process and is in line with Swiss pension law, including the rules and regulations relating to diversification of plan assets. These rules, among others, specify restrictions to the composition of plan assets, e.g., there is a limit of 50% for investments in equities. The investment strategy of the Swiss plan is aligned to the defined risk budget set out by the Pension Foundation Board. The risk budget is determined based on regularly performed asset and liability management analyses. In order to implement the risk budget, the Swiss plan may use direct investments, investment funds and derivatives. To mitigate foreign currency risk, a specific currency hedging strategy was implemented. The Pension Foundation Board strives for a medium- and long-term balance between assets and liabilities. Under IAS 19, volatility arises in the Swiss pension plan net asset/liability because the fair value of the plan assets is not directly correlated to movements in the value of the plan's defined benefit obligation in the short-term.

As of 31 December 2015, the Swiss pension plan was in a surplus situation on an International Financial Reporting Standards (IFRS) measurement basis, as the fair value of plan assets exceeded the defined benefit obligation by CHF 1,283 million (31 December 2014: deficit of CHF 25 million). However, a surplus can only be recognized on the balance sheet to the extent that it does not exceed the estimated future economic benefit, which equals the difference between the present value of the estimated future net service cost and the present value of the estimated future employer contributions. The maximum future economic benefit is highly variable based on changes in the discount rate. As of 31 December 2015, the estimated future economic benefit was zero and hence, no net defined benefit asset was recognized on the balance sheet. The difference of CHF 1,283 million between the pension plan surplus and the estimated future economic benefit, the so-called asset ceiling effect, was recognized in other comprehensive income.

The employer contributions expected to be made to the Swiss pension plan in 2016 are estimated to be CHF 474 million.

### Non-Swiss pension plans

The non-Swiss locations of UBS AG offer various defined benefit pension plans in accordance with local regulations and practices. The non-Swiss locations with major defined benefit plans are the UK, the US and Germany. Defined benefit pension plans in other locations are not material to the financial results of UBS AG and hence not separately disclosed.

The non-Swiss plans provide benefits in the event of retirement, death or disability. The level of benefits provided depends on the specific rate of benefit accrual and the level of employee compensation. UBS AG's general principle is to ensure that the plans are appropriately funded under local pension regulations in each country and this is the primary driver for determining when additional contributions are required. Similar to the Swiss pension plan, volatility arises in the net asset/liability position of the non-Swiss plans because the fair value of the respective plans' assets are not directly correlated to movements in the value of the plans' defined benefit obligations.

The funding policy for these plans is consistent with local government regulations and tax requirements, and actuarial assumptions used are based on the local economic environment.

➔ **Refer to Note 1a item 24 for a description of the accounting policy for defined benefit pension plans**

### UK

The UK plan is a career-average revalued earnings scheme, and benefits increase automatically based on UK price inflation. Normal retirement age for participants in the UK plan is 60. On 1 July 2013, UBS AG closed the UK defined benefit pension plan for future service. After that date, UBS AG no longer recognized current service costs for this plan. Plan participants who were active employees under the defined benefit plan were eligible to become participants of the defined contribution plan for any service after the plan was closed for future service.

**Note 28 Pension and other post-employment benefit plans (continued)**

The responsibility for governance of the UK plan lies jointly with the Pension Trustee Board, which is required under local pension laws, and UBS AG. The employer contributions to the pension fund included regular contributions and specific deficit-funding contributions until the date of the closure for future service and thereafter only reflected agreed-upon deficit-funding contributions. The deficit-funding contributions are determined based on the most recent actuarial valuation, which is conducted based on assumptions agreed by the Pension Trustee Board and UBS AG. In the event of an underfunding, UBS AG must agree to a deficit recovery plan with the Pension Trustee Board within statutory deadlines. In 2015, UBS AG made a deficit-funding contribution of CHF 316 million (2014: CHF 75 million).

The plan assets are invested in a diversified portfolio of financial assets. A liability-driven investment approach is applied as a portion of the plan assets are invested in inflation-indexed bonds which provide a partial hedge against price inflation. If price inflation increases, the defined benefit obligation will likely increase more significantly than any change in the fair value of plan assets, which would result in an increase in the net defined benefit liability. Plan rules and local pension legislation cap the level of inflationary increase that can be applied to plan benefits.

As the plan is obligated to provide guaranteed lifetime pension benefits to plan participants upon retirement, increases in life expectancy will result in an increase in the plan's liabilities. This is particularly significant in the UK plan, where inflationary increases result in higher sensitivity to changes in life expectancy.

As of 31 December 2015, the UK plan was in a surplus situation on an IFRS measurement basis, as the fair value of plan assets exceeded the defined benefit obligation by CHF 50 million. This surplus was recognized on the UBS AG balance sheet, as UBS AG has a right to a refund with regards to the UK plan.

No employer contributions are expected to be made to the UK defined benefit plan in 2016.

### US

There are two distinct major defined benefit pension plans in the US. Normal retirement age for participants in the US plans is 65. The plans are closed to new entrants, who instead can participate in defined contribution plans.

One of the major defined benefit pension plans is a contribution-based plan in which each participant accrues a percentage of salary in a pension account. The pension account is credited annually with interest based on a rate that is linked to the average yield on one-year US government bonds. For the other major defined benefit pension plan, retirement benefits accrue based on the career-average earnings of each individual plan participant. Upon retirement, the plans allow participants a choice between a lump sum payment and a lifetime pension.

Both of these defined benefit pension plans have fiduciaries as required under local state pension laws. The fiduciaries, along with UBS AG, are jointly responsible for governance of the plans. Actuarial valuations are regularly completed for the plans, and UBS AG has historically elected to make contributions to the plans in order to maintain a funded ratio of at least 80%, as calculated under local pension regulations. The annual employer contributions are equal to the present value of benefits accrued each year plus a rolling amortization of any prior underfunding. If the employer contributes more than the minimum or the plan has assets exceeding the liabilities, the excess can be used to offset minimum funding requirements.

The plan assets for both plans are invested in a diversified portfolio of financial assets. Each pension plan's fiduciaries are responsible for the investment decisions with respect to the plan assets. A liability-driven investment approach is applied for one of the US plans to support the volatility management in the net asset/liability position. Derivative instruments may also be employed to manage volatility, including, but not limited to, interest rate futures, equity futures and swaps, including credit default swaps and interest rate swaps.

In 2015, the US pension plan rules were amended such that former UBS AG employees with vested benefits in the US defined benefit pension plans have the option to receive a lump sum payment (or early annuity payments) instead of a lifetime pension commencing at retirement age. This resulted in a reduction in the defined benefit obligation of CHF 24 million and a corresponding gain recognized in the income statement in 2015, of which CHF 21 million was recorded in Wealth Management Americas.

In 2013, UBS AG offered a one-time option to former UBS AG employees with vested benefits in the US defined benefit pension plans to receive a lump sum payment (or early annuity payments) instead of a lifetime pension. This resulted in a reduction in the defined benefit obligation of CHF 196 million, a reduction of fair value of plan assets of CHF 216 million and a charge to the income statement of CHF 20 million in 2013.

The employer contributions expected to be made to the US defined benefit plans in 2016 are estimated to be CHF 43 million.

**Note 28 Pension and other post-employment benefit plans (continued)**

Germany

There are two different defined benefit pension plans in Germany and both are contribution-based plans. No plan assets are set aside to fund these plans and benefits are directly paid by UBS AG. Normal retirement age for the participants in the German plans is 65. Within the larger of the two pension plans, each participant accrues a percentage of salary in a pension account. On an annual basis the accumulated account balance of the plan participant is credited with guaranteed interest at a rate of 5%. The other plan is a deferred compensation plan in which amounts are accrued annually based on employee elections. For this deferred compensation plan, the accumulated account balance is credited on an annual basis with a guaranteed interest rate of 4% for amounts accrued after 2009. Both German plans are regulated under German pension law, under which the responsibility to pay pension benefits when they are due rests entirely with UBS AG. For the German plans, a portion of the pension payments is directly increased in line with price inflation.

The employer contributions expected to be made to the German plans in 2016 are estimated to be CHF 8 million.

The table on the following pages provides an analysis of the movement in the net asset/liability recognized on the balance sheet for defined benefit pension plans from the beginning to the end of the year, as well as an analysis of amounts recognized in net profit and in other comprehensive income.

In 2015, disclosures within this Note have been expanded to separately present UK plan information, which was previously included within "Non-Swiss" plans. Consequently, the US and German plans are now shown together within "Other". Comparative information was adjusted accordingly.

## Note 28 Pension and other post-employment benefit plans (continued)

**Defined benefit pension plans**

| *CHF million* | Swiss | | UK | | Other | | Total | |
|---|---|---|---|---|---|---|---|---|
| For the year ended | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| Defined benefit obligation at the beginning of the year | **23,956** | 20,738 | **3,949** | 3,355 | **1,693** | 1,315 | **29,598** | 25,408 |
| Current service cost | **589** | 496 | **0** | 0 | **10** | 10 | **599** | 506 |
| Interest expense | **270** | 465 | **137** | 158 | **57** | 59 | **463** | 682 |
| Plan participant contributions | **205** | 202 | **0** | 0 | **0** | 0 | **205** | 202 |
| Remeasurements of defined benefit obligation | **(1,231)** | 3,120 | **(441)** | 349 | **(8)** | 270 | **(1,681)** | 3,739 |
| *of which: actuarial (gains) / losses arising from changes in demographic assumptions* | ***(1,038)*** | *66* | ***(122)*** | *(15)* | ***34*** | *85* | ***(1,125)*** | *136* |
| *of which: actuarial (gains) / losses arising from changes in financial assumptions* | ***(237)*** | *2,705* | ***(201)*** | *489* | ***(71)*** | *180* | ***(509)*** | *3,374* |
| *of which: experience (gains) / losses[1]* | ***44*** | *349* | ***(119)*** | *(126)* | ***28*** | *6* | ***(47)*** | *228* |
| Past service cost related to plan amendments | **0** | 0 | **0** | 0 | **(24)** | 0 | **(24)** | 0 |
| Curtailments | **(81)** | (54) | **0** | 0 | **0** | 0 | **(81)** | (54) |
| Benefit payments | **(1,071)** | (1,045) | **(128)** | (91) | **(83)** | (81) | **(1,283)** | (1,218) |
| Termination benefits | **1** | 34 | **0** | 0 | **0** | 0 | **1** | 34 |
| Foreign currency translation | **0** | 0 | **(166)** | 178 | **(26)** | 119 | **(192)** | 297 |
| **Defined benefit obligation at the end of the year** | **22,636** | 23,956 | **3,350** | 3,949 | **1,619** | 1,693 | **27,605** | 29,598 |
| *of which: amounts owing to active members* | ***10,359*** | *11,480* | ***255*** | *312* | ***267*** | *312* | ***10,881*** | *12,104* |
| *of which: amounts owing to deferred members* | ***0*** | *0* | ***1,864*** | *2,211* | ***523*** | *545* | ***2,388*** | *2,756* |
| *of which: amounts owing to retirees* | ***12,278*** | *12,477* | ***1,230*** | *1,425* | ***829*** | *836* | ***14,336*** | *14,738* |
| Fair value of plan assets at the beginning of the year | **23,931** | 22,498 | **3,381** | 2,922 | **1,029** | 845 | **28,341** | 26,266 |
| Return on plan assets excluding amounts included in interest income | **109** | 1,262 | **(124)** | 181 | **(44)** | 14 | **(59)** | 1,457 |
| Interest income | **273** | 513 | **118** | 141 | **39** | 43 | **430** | 697 |
| Employer contributions – excluding termination benefits | **482** | 478 | **316** | 75 | **57** | 107 | **855** | 659 |
| Employer contributions – termination benefits | **1** | 34 | **0** | 0 | **0** | 0 | **1** | 34 |
| Plan participant contributions | **205** | 202 | **0** | 0 | **0** | 0 | **205** | 202 |
| Benefit payments | **(1,071)** | (1,045) | **(128)** | (91) | **(83)** | (81) | **(1,283)** | (1,218) |
| Administration expenses, taxes and premiums paid | **(10)** | (10) | **0** | 0 | **(8)** | (6) | **(18)** | (16) |
| Payments related to plan amendments | **0** | 0 | **0** | 0 | **0** | 0 | **0** | 0 |
| Foreign currency translation | **0** | 0 | **(163)** | 154 | **7** | 107 | **(156)** | 261 |
| **Fair value of plan assets at the end of the year** | **23,919** | 23,931 | **3,400** | 3,381 | **997** | 1,029 | **28,316** | 28,341 |
| **Asset ceiling effect** | **1,283** | 0 | **0** | 0 | **0** | 0 | **1,283** | 0 |
| **Net defined benefit asset / (liability)** | **0** | (25) | **50** | (568) | **(622)** | (664) | **(572)** | (1,256) |

**Movement in the net asset / (liability) recognized on the balance sheet**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Net asset / (liability) recognized on the balance sheet at the beginning of the year** | **(25)** | 952 | **(568)** | (433) | **(664)** | (470) | **(1,256)** | 50 |
| Net periodic pension cost | **(515)** | (458) | **(18)** | (17) | **(12)** | (33) | **(546)** | (508) |
| Amounts recognized in other comprehensive income | **58** | (1,032) | **317** | (168) | **(35)** | (256) | **339** | (1,456) |
| Employer contributions – excluding termination benefits | **482** | 478 | **316** | 75 | **57** | 107 | **855** | 659 |
| Employer contributions – termination benefits | **1** | 34 | **0** | 0 | **0** | 0 | **1** | 34 |
| Foreign currency translation | **0** | 0 | **3** | (24) | **33** | (12) | **36** | (36) |
| **Net asset / (liability) recognized on the balance sheet at the end of the year** | **0** | (25) | **50** | (568) | **(622)** | (664) | **(572)** | (1,256) |

**Funded and unfunded plans**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Defined benefit obligation from funded plans | **22,636** | 23,956 | **3,350** | 3,949 | **1,288** | 1,301 | **27,274** | 29,205 |
| Defined benefit obligation from unfunded plans | **0** | 0 | **0** | 0 | **331** | 392 | **331** | 392 |
| Plan assets | **23,919** | 23,931 | **3,400** | 3,381 | **997** | 1,029 | **28,316** | 28,341 |
| **Surplus / (deficit)** | **1,283** | (25) | **50** | (568) | **(622)** | (664) | **711** | (1,256) |
| **Asset ceiling effect** | **1,283** | 0 | **0** | 0 | **0** | 0 | **1,283** | 0 |
| **Net defined benefit asset / (liability)** | **0** | (25) | **50** | (568) | **(622)** | (664) | **(572)** | (1,256) |

1 Experience (gains) / losses are a component of actuarial remeasurements of the defined benefit obligation which reflect the effects of differences between the previous actuarial assumptions and what has actually occurred.

## Note 28 Pension and other post-employment benefit plans (continued)

**Analysis of amounts recognized in net profit**

| *CHF million* | Swiss | | UK | | Other | | Total | |
|---|---|---|---|---|---|---|---|---|
| For the year ended | 31.12.15 | 31.12.14 | 31.12.15 | 31.12.14 | 31.12.15 | 31.12.14 | 31.12.15 | 31.12.14 |
| Current service cost | 589 | 496 | 0 | 0 | 10 | 10 | 599 | 506 |
| Interest expense related to defined benefit obligation | 270 | 465 | 137 | 158 | 57 | 59 | 463 | 682 |
| Interest income related to plan assets | (273) | (513) | (118) | (141) | (39) | (43) | (430) | (697) |
| Interest expense on asset ceiling effect | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 19 |
| Administration expenses, taxes and premiums paid | 10 | 10 | 0 | 0 | 8 | 6 | 18 | 16 |
| Plan amendments | 0 | 0 | 0 | 0 | (24) | 0 | (24) | 0 |
| Curtailments | (81) | (54) | 0 | 0 | 0 | 0 | (81) | (54) |
| Termination benefits | 1 | 34 | 0 | 0 | 0 | 0 | 1 | 34 |
| **Net periodic pension cost** | **515** | **458** | **18** | **17** | **12** | **33** | **546** | **508** |

**Analysis of amounts recognized in other comprehensive income**

| *CHF million* | Swiss | | UK | | Other | | Total | |
|---|---|---|---|---|---|---|---|---|
| For the year ended | 31.12.15 | 31.12.14 | 31.12.15 | 31.12.14 | 31.12.15 | 31.12.14 | 31.12.15 | 31.12.14 |
| Remeasurement of defined benefit obligation | 1,231 | (3,120) | 441 | (349) | 8 | (270) | 1,681 | (3,739) |
| Return on plan assets excluding amounts included in interest income | 109 | 1,262 | (124) | 181 | (44) | 14 | (59) | 1,457 |
| Asset ceiling effect excluding interest expense on asset ceiling effect | (1,283) | 808 | 0 | 0 | 0 | 0 | (1,283) | 808 |
| Interest expense on asset ceiling effect | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 19 |
| **Total gains / (losses) recognized in other comprehensive income, before tax** | **58** | **(1,032)** | **317** | **(168)** | **(35)** | **(256)** | **339** | **(1,456)** |

The table below provides information on the duration of the defined benefit pension obligations and the distribution of the timing of benefit payments.

| | Swiss | | UK | | Other[1] | |
|---|---|---|---|---|---|---|
| | 31.12.15 | 31.12.14 | 31.12.15 | 31.12.14 | 31.12.15 | 31.12.14 |
| **Duration of the defined benefit obligation (in years)** | 15.1 | 16.7 | 19.7 | 20.2 | 11.3 | 12.5 |
| **Maturity analysis of benefits expected to be paid** | | | | | | |
| *CHF million* | | | | | | |
| Benefits expected to be paid within 12 months | 1,146 | 1,033 | 80 | 81 | 92 | 85 |
| Benefits expected to be paid between 1 to 3 years | 2,218 | 2,023 | 177 | 173 | 185 | 171 |
| Benefits expected to be paid between 3 to 6 years | 3,403 | 3,035 | 338 | 322 | 291 | 274 |
| Benefits expected to be paid between 6 to 11 years | 5,526 | 5,394 | 785 | 768 | 509 | 485 |
| Benefits expected to be paid between 11 to 16 years | 5,173 | 5,571 | 981 | 997 | 510 | 513 |
| Benefits expected to be paid in more than 16 years | 18,892 | 26,613 | 7,348 | 7,926 | 1,172 | 1,363 |

1 The duration of the defined benefit obligation represents a weighted average across other plans.

## Note 28 Pension and other post-employment benefit plans (continued)

UBS AG regularly reviews the actuarial assumptions used in calculating its defined benefit obligations to determine their continuing relevance.

In 2015, UBS AG carried out a methodology review of the actuarial assumptions used in calculating its defined benefit obligation for its Swiss pension plan. As a result, UBS AG enhanced its methodology for estimating the discount rate by improving the construction of the yield curve where the market for long tenor maturities of Swiss high-quality corporate bonds was not sufficiently deep. Furthermore, UBS AG refined its approach to estimating the rate of salary increases, the rate of interest credit on retirement savings, the employee turnover rate, the rate of employee disabilities and the rate of marriage. These improvements in estimates resulted in a total net decrease in the defined benefit obligation (DBO) of the Swiss pension plan of CHF 2,055 million, of which CHF 1,038 million related to demographic assumptions and CHF 1,017 million related to financial assumptions. These reductions in the DBO from improvements in estimates were partly offset by market-driven discount rate changes, resulting in an overall downward remeasurement of the Swiss plan DBO of CHF 1,231 million, which was recognized in other comprehensive income.

Furthermore, UBS AG enhanced methodologies and refined approaches used to estimate various actuarial assumptions for its UK and other pension plans. These improvements in estimates resulted in a total net decrease in the DBO of the UK pension plan of CHF 192 million, of which CHF 122 million related to demographic assumptions and CHF 71 million related to financial assumptions. In addition, mainly market-driven discount rate changes reduced the DBO further, resulting in an overall downward remeasurement of the UK plan DBO of CHF 441 million, which was recognized in other comprehensive income.

The tables below show the principal actuarial assumptions used in calculating the defined benefit obligations.

| | Swiss | | UK | | Other[1] | |
|---|---|---|---|---|---|---|
| | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| **Principal actuarial assumptions used (%)** | | | | | | |
| **Assumptions used to determine defined benefit obligations at the end of the year** | | | | | | |
| Discount rate | **1.09** | 1.15 | **3.90** | 3.69 | **4.01** | 3.60 |
| Rate of salary increase | **1.75** | 2.40 | **0.00** | 0.00 | **2.89** | 3.01 |
| Rate of pension increase | **0.00** | 0.00 | **3.02** | 3.08 | **1.50** | 1.75 |
| Rate of interest credit on retirement savings | **1.09** | 1.40 | **0.00** | 0.00 | **1.48** | 1.13 |

1 Represents weighted average assumptions across other plans.

**Mortality tables and life expectancies for major plans**

| | | Life expectancy at age 65 for a male member currently | | | |
|---|---|---|---|---|---|
| | | aged 65 | | aged 45 | |
| **Country** | **Mortality table** | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| Switzerland | BVG 2010 G | **21.5** | 21.4 | **23.2** | 23.2 |
| UK | S2PA CMI_2015, with projections[1] | **23.9** | 24.4 | **25.6** | 27.2 |
| US | RP2014 WCHA, with MP2015 projection scale[2] | **23.0** | 21.7 | **24.5** | 23.4 |
| Germany | Dr. K. Heubeck 2005 G | **20.0** | 19.9 | **22.6** | 22.5 |

| | | Life expectancy at age 65 for a female member currently | | | |
|---|---|---|---|---|---|
| | | aged 65 | | aged 45 | |
| **Country** | **Mortality table** | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| Switzerland | BVG 2010 G | **24.0** | 23.9 | **25.7** | 25.6 |
| UK | S2PA CMI_2015, with projections[1] | **25.8** | 25.7 | **28.0** | 28.0 |
| US | RP2014 WCHA, with MP2015 projection scale[2] | **24.6** | 23.9 | **26.2** | 25.6 |
| Germany | Dr. K. Heubeck 2005 G | **24.1** | 23.9 | **26.6** | 26.5 |

1 In 2014 the mortality table S1NA_L CMI 2014 G, with projections was used. 2 In 2014 the mortality table RP2014 G, with MP2014 projection scale was used.

## Note 28 Pension and other post-employment benefit plans (continued)

Volatility arises in the defined benefit obligation for each of the pension plans due to the following actuarial assumptions applied in the measurement of the defined benefit obligation:

- Discount rate: the discount rate is based on the yield of high-quality corporate bonds of the market in the respective pension plan country. Consequently, a decrease in the yield of high-quality corporate bonds will increase the defined benefit obligation of the pension plans. Conversely, an increase in the yield of high-quality corporate bonds will decrease the defined benefit obligation of the pension plans.
- Rate of salary increase: an increase in the salary of plan participants will generally increase the defined benefit obligation, specifically for the Swiss and German plans. For the UK plan, as the plan is closed for future service, UBS AG employees no longer accrue future service benefits and thus salary increases have no impact on the defined benefit obligation. For the US plans, only a small percentage of the total population continues to accrue benefits for future service, therefore the impact of a salary increase on the defined benefit obligation is minimal.
- Rate of pension increase: for the Swiss plan, there is no automatic indexing of pensions. Any increase would be decided by the Pension Foundation Board. Similarly, for the US plans, there is no automatic indexing of pensions. For the UK plan, pensions are automatically indexed to price inflation as per plan rules and local pension legislation. Similarly, the German defined benefit pension plans are automatically indexed and a portion of the pensions are directly increased by price inflation. An increase in price inflation in the UK and Germany will increase the respective plan's defined benefit obligation.
- Rate of interest credit on retirement savings: the Swiss plan and one of the plans in the US have retirement saving balances that are increased annually by an interest credit rate. For these plans, an increase in the interest credit rate would increase the respective plan's defined benefit obligation.
- Life expectancy: for most of UBS AG's defined benefit pension plans, the respective plan is obligated to provide guaranteed lifetime pension benefits. The defined benefit obligation for all plans is calculated using an underlying best estimate of the life expectancy of plan participants. An increase in the life expectancy of plan participants will increase the plan's defined benefit obligation.

The table below presents a sensitivity analysis for each significant actuarial assumption showing how the defined benefit obligation would be affected by changes in the relevant actuarial assumption that were reasonably possible at the balance sheet date. Unforeseen circumstances may arise, which could result in variations that are outside the range of alternatives deemed reasonably possible. This sensitivity analysis applies to the defined benefit obligation only and not to the net asset/liability in its entirety. Caution should be used in extrapolating the sensitivities below to the overall impact on the defined benefit obligation, as the sensitivities may not be linear.

**Sensitivity analysis of significant actuarial assumptions[1]**

| | Swiss plan: increase / (decrease) in defined benefit obligation | | UK plan: increase / (decrease) in defined benefit obligation | | Other plans: increase / (decrease) in defined benefit obligation | |
|---|---|---|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| **Discount rate** | | | | | | |
| Increase by 50 basis points | **(1,416)** | (1,688) | **(308)** | (372) | **(84)** | (98) |
| Decrease by 50 basis points | **1,609** | 1,936 | **354** | 428 | **92** | 108 |
| **Rate of salary increase** | | | | | | |
| Increase by 50 basis points | **82** | 210 | **–[2]** | –[2] | **1** | 2 |
| Decrease by 50 basis points | **(86)** | (198) | **–[2]** | –[2] | **(1)** | (2) |
| **Rate of pension increase** | | | | | | |
| Increase by 50 basis points | **1,163** | 1,315 | **343** | 414 | **6** | 8 |
| Decrease by 50 basis points | **–[3]** | –[3] | **(300)** | (363) | **(5)** | (7) |
| **Rate of interest credit on retirement savings** | | | | | | |
| Increase by 50 basis points | **263** | 334 | **–[4]** | –[4] | **8** | 9 |
| Decrease by 50 basis points | **(249)** | (315) | **–[4]** | –[4] | **(8)** | (8) |
| **Life expectancy** | | | | | | |
| Increase in longevity by one additional year | **719** | 755 | **97** | 135 | **42** | 45 |

1 The sensitivity analyses are based on a change in one assumption while holding all other assumptions constant, so that interdependencies between the assumptions are excluded. 2 As the plan is closed for future service, a change in assumption is not applicable. 3 As the assumed rate of pension increase was 0% as of 31 December 2015 and as of 31 December 2014, a downward change in assumption is not applicable. 4 As the plan does not provide interest credits on retirement savings, a change in assumption is not applicable.

## Note 28 Pension and other post-employment benefit plans (continued)

The table below provides information on the composition and fair value of plan assets of the Swiss pension plan, the UK pension plan and the other pension plans.

**Composition and fair value of plan assets**

**Swiss plan**

| | 31.12.15 | | | | 31.12.14 | | | |
|---|---|---|---|---|---|---|---|---|
| | Fair value | | | Plan asset allocation % | Fair value | | | Plan asset allocation % |
| *CHF million* | Quoted in an active market | Other | Total | | Quoted in an active market | Other | Total | |
| **Cash and cash equivalents** | 517 | 0 | 517 | 2 | 829 | 0 | 829 | 3 |
| **Real estate / property** | | | | | | | | |
| Domestic | 0 | 2,647 | 2,647 | 11 | 0 | 2,582 | 2,582 | 11 |
| **Investment funds** | | | | | | | | |
| Equity | | | | | | | | |
| Domestic | 699 | 0 | 699 | 3 | 798 | 0 | 798 | 3 |
| Foreign | 6,948 | 1,085 | 8,033 | 34 | 6,245 | 994 | 7,239 | 30 |
| Bonds[1] | | | | | | | | |
| Domestic, AAA to BBB– | 2,112 | 0 | 2,112 | 9 | 2,591 | 0 | 2,591 | 11 |
| Foreign, AAA to BBB– | 6,109 | 0 | 6,109 | 26 | 6,418 | 0 | 6,418 | 27 |
| Foreign, below BBB– | 1,056 | 0 | 1,056 | 4 | 104 | 0 | 104 | 0 |
| Real estate | | | | | | | | |
| Foreign | 0 | 63 | 63 | 0 | 0 | 104 | 104 | 0 |
| Other | 1,064 | 1,605 | 2,669 | 11 | 2,513 | 736 | 3,249 | 14 |
| **Other investments** | 0 | 15 | 15 | 0 | 0 | 17 | 17 | 0 |
| **Total** | 18,505 | 5,414 | 23,919 | 100 | 19,499 | 4,432 | 23,931 | 100 |

| | 31.12.15 | 31.12.14 |
|---|---|---|
| **Total fair value of plan assets** | 23,919 | 23,931 |
| *of which:* | | |
| *Bank accounts at UBS AG and UBS AG debt instruments* | *522* | *385* |
| *UBS Group AG shares* | *38* | *38* |
| *Securities lent to UBS AG*[2] | *962* | *921* |
| *Property occupied by UBS AG* | *82* | *87* |
| *Derivative financial instruments, counterparty UBS AG*[2] | *(170)* | *(357)* |
| *Structured products, counterparty UBS AG* | *0* | *42* |

1 The bond credit ratings are primarily based on Standard and Poor's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in the Standard & Poor's rating classification. 2 Securities lent to UBS AG and derivative financial instruments are presented gross of any collateral. Net of collateral, derivative financial instruments amounted to CHF (90) million as of 31 December 2015 (31 December 2014: CHF (123) million). Securities lent to UBS AG were fully covered by collateral as of 31 December 2015 and 31 December 2014.

## Note 28 Pension and other post-employment benefit plans (continued)

### Composition and fair value of plan assets (continued)

**UK plan**

| | 31.12.15 | | | | 31.12.14 | | | |
|---|---|---|---|---|---|---|---|---|
| | Fair value | | | Plan asset allocation % | Fair value | | | Plan asset allocation % |
| *CHF million* | Quoted in an active market | Other | Total | | Quoted in an active market | Other | Total | |
| **Cash and cash equivalents** | 426 | 0 | 426 | 13 | 192 | 0 | 192 | 6 |
| **Investment funds** | | | | | | | | |
| Equity | | | | | | | | |
| Domestic | 98 | 0 | 98 | 3 | 122 | 0 | 122 | 4 |
| Foreign | 1,080 | 0 | 1,080 | 32 | 1,042 | 0 | 1,042 | 31 |
| Bonds[1] | | | | | | | | |
| Domestic, AAA to BBB– | 1,305 | 0 | 1,305 | 38 | 1,344 | 0 | 1,344 | 40 |
| Domestic, below BBB– | 53 | 0 | 53 | 2 | 179 | 0 | 179 | 5 |
| Foreign, AAA to BBB– | 189 | 0 | 189 | 6 | 91 | 0 | 91 | 3 |
| Foreign, below BBB– | 31 | 0 | 31 | 1 | 153 | 0 | 153 | 5 |
| Real estate | | | | | | | | |
| Domestic | 46 | 68 | 115 | 3 | 43 | 99 | 142 | 4 |
| Other | (32) | 123 | 91 | 3 | (33) | 139 | 106 | 3 |
| **Other investments** | 6 | 7 | 13 | 0 | 0 | 10 | 10 | 0 |
| **Total fair value of plan assets** | 3,202 | 198 | 3,400 | 100 | 3,133 | 248 | 3,381 | 100 |

1 The bond credit ratings are primarily based on Standard and Poor's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in the Standard & Poor's rating classification.

## Note 28 Pension and other post-employment benefit plans (continued)

### Composition and fair value of plan assets (continued)

**Other plans**

| | 31.12.15 | | | | 31.12.14 | | | |
|---|---|---|---|---|---|---|---|---|
| | Fair value | | | Weighted average plan asset allocation % | Fair value | | | Weighted average plan asset allocation % |
| *CHF million* | Quoted in an active market | Other | Total | | Quoted in an active market | Other | Total | |
| **Cash and cash equivalents** | 52 | 0 | 52 | 5 | 32 | 0 | 32 | 3 |
| **Bonds**[1] | | | | | | | | |
| Domestic, AAA to BBB– | 56 | 0 | 56 | 6 | 104 | 0 | 104 | 10 |
| Domestic, below BBB– | 60 | 0 | 60 | 6 | 10 | 0 | 10 | 1 |
| Foreign, AAA to BBB– | 17 | 0 | 17 | 2 | 24 | 0 | 24 | 2 |
| Foreign, below BBB– | 6 | 0 | 6 | 1 | 3 | 0 | 3 | 0 |
| **Private equity** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Investment funds** | | | | | | | | |
| Equity | | | | | | | | |
| Domestic | 240 | 0 | 240 | 24 | 250 | 0 | 250 | 24 |
| Foreign | 240 | 0 | 240 | 24 | 258 | 0 | 258 | 25 |
| Bonds[1] | | | | | | | | |
| Domestic, AAA to BBB– | 134 | 0 | 134 | 13 | 142 | 0 | 142 | 14 |
| Domestic, below BBB– | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 |
| Foreign, AAA to BBB– | 31 | 0 | 31 | 3 | 32 | 0 | 32 | 3 |
| Foreign, below BBB– | 3 | 0 | 3 | 0 | 4 | 0 | 4 | 0 |
| Real estate | | | | | | | | |
| Domestic | 0 | 12 | 12 | 1 | 0 | 13 | 13 | 1 |
| Other | 56 | 42 | 98 | 10 | 66 | 39 | 105 | 10 |
| **Insurance contracts** | 0 | 17 | 17 | 2 | 0 | 17 | 17 | 2 |
| **Asset-backed securities** | 14 | 0 | 14 | 1 | 17 | 0 | 17 | 2 |
| **Other investments** | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 |
| **Total fair value of plan assets** | 926 | 70 | 997 | 100 | 961 | 68 | 1,029 | 100 |

1 The bond credit ratings are primarily based on Standard and Poor's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in the Standard & Poor's rating classification.

**Note 28 Pension and other post-employment benefit plans (continued)**

## b) Post-retirement medical and life insurance plans

In the US and in the UK, UBS AG offers post-retirement medical benefits that contribute to the health care coverage of certain employees and their beneficiaries after retirement.

The UK post-retirement medical plan is closed to new entrants. In the US, in addition to post-retirement medical benefits, UBS AG also provides post-retirement life insurance benefits to certain employees. The post-retirement medical benefits in the UK and the US cover all types of medical expenses including, but not limited to, the cost of doctor visits, hospitalization, surgery and pharmaceuticals. These plans are not pre-funded plans and costs are recognized as incurred. In the US, the retirees also contribute to the cost of the post-retirement medical benefits.

In 2014, UBS AG announced changes to the US post-retirement medical plans in relation to a reduction or elimination of the subsidy provided for medical benefits. This change reduced the post-retirement benefit obligation by CHF 33 million, resulting in a corresponding gain recognized in the income statement in 2014.

Further in 2014, UBS AG announced changes to the US post-retirement life insurance plans in relation to an elimination of the US post-retirement life insurance policy. This change reduced the post-retirement benefit obligation by CHF 8 million, resulting in a corresponding gain recognized in the income statement in 2014.

The employer contributions expected to be made to the post-retirement medical and life insurance plans in 2016 are estimated to be CHF 6 million.

The table on the following page provides an analysis of the net asset/liability recognized on the balance sheet for post-retirement medical and life insurance plans from the beginning to the end of the year, as well as an analysis of amounts recognized in net profit and in other comprehensive income.

In 2015, disclosures within this Note have been expanded to separately present UK post-retirement medical plan information, which was previously presented together with the US post-retirement medical plans. Comparative information was adjusted accordingly.

## Note 28 Pension and other post-employment benefit plans (continued)

**Post-retirement medical and life insurance plans**

| *CHF million* | UK | | US | | Total | |
|---|---|---|---|---|---|---|
| For the year ended | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| Post-retirement benefit obligation at the beginning of the year | **32** | 28 | **53** | 87 | **85** | 114 |
| Current service cost | **0** | 0 | **0** | 0 | **0** | 0 |
| Interest expense | **1** | 1 | **2** | 3 | **3** | 5 |
| Plan participant contributions | **0** | 0 | **2** | 2 | **2** | 2 |
| Remeasurements of post-retirement benefit obligation | **(6)** | 3 | **9** | 2 | **3** | 5 |
| *of which: actuarial (gains)/losses arising from changes in demographic assumptions* | ***2*** | *0* | ***2*** | *4* | ***4*** | *4* |
| *of which: actuarial (gains)/losses arising from changes in financial assumptions* | ***(1)*** | *4* | ***(2)*** | *5* | ***(3)*** | *8* |
| *of which: experience (gains)/losses[1]* | ***(7)*** | *0* | ***9*** | *(7)* | ***2*** | *(7)* |
| Past service cost related to plan amendments | **0** | 0 | **0** | (41) | **0** | (41) |
| Benefit payments[2] | **(1)** | (2) | **(8)** | (9) | **(10)** | (10) |
| Foreign currency translation | **(2)** | 1 | **1** | 8 | **(1)** | 10 |
| **Post-retirement benefit obligation at the end of the year** | **25** | 32 | **59** | 53 | **84** | 85 |
| *of which: amounts owing to active members* | ***5*** | *12* | ***0*** | *0* | ***5*** | *12* |
| *of which: amounts owing to deferred members* | ***0*** | *0* | ***0*** | *0* | ***0*** | *0* |
| *of which: amounts owing to retirees* | ***20*** | *21* | ***59*** | *53* | ***79*** | *74* |
| **Fair value of plan assets at the end of the year** | **0** | 0 | **0** | 0 | **0** | 0 |
| **Net post-retirement benefit asset/(liability)** | **(25)** | (32) | **(59)** | (53) | **(84)** | (85) |

**Analysis of amounts recognized in net profit**

| | | | | | | |
|---|---|---|---|---|---|---|
| Current service cost | **0** | 0 | **0** | 0 | **0** | 0 |
| Interest expense related to post-retirement benefit obligation | **1** | 1 | **2** | 3 | **3** | 5 |
| Past service cost related to plan amendments | **0** | 0 | **0** | (41) | **0** | (41) |
| **Net periodic cost** | **1** | 2 | **2** | (37) | **4** | (36) |

**Analysis of gains/(losses) recognized in other comprehensive income**

| | | | | | | |
|---|---|---|---|---|---|---|
| Remeasurement of post-retirement benefit obligation | **6** | (3) | **(9)** | (2) | **(3)** | (5) |
| **Total gains/(losses) recognized in other comprehensive income, before tax** | **6** | (3) | **(9)** | (2) | **(3)** | (5) |

1 Experience (gains)/losses are a component of actuarial remeasurements of the post-retirement benefit obligation which reflect the effects of differences between the previous actuarial assumptions and what has actually occurred. 2 Benefit payments are funded by employer contributions and plan participant contributions.

## Note 28 Pension and other post-employment benefit plans (continued)

The post-retirement benefit obligation is determined by using the assumed average health care cost trend rate, the discount rate and the life expectancy. On a country-by-country basis, the same discount rate is used for the calculation of the post-retirement benefit obligation from medical and life insurance plans as for the defined benefit obligations arising from pension plans.

UBS AG regularly reviews the actuarial assumptions used in calculating its post-retirement benefit obligations to determine their continuing relevance. In 2015, UBS AG enhanced methodologies and refined approaches used to estimate various actuarial assumptions. These improvements in estimates resulted in a net increase in the post-retirement benefit obligation.

The discount rate and the assumed average health care cost trend rates are presented in the table below. The basis for life expectancy assumptions is the same as provided for defined benefit pension plans in Note 28a.

**Principal weighted average actuarial assumptions used (%)**[1]

| Assumptions used to determine post-retirement benefit obligations at the end of the year | UK | | US | |
|---|---|---|---|---|
| For the year ended | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| Discount rate | **3.90** | 3.69 | **4.23** | 3.93 |
| Average health care cost trend rate – initial | **5.10** | 5.50 | **6.75** | 7.00 |
| Average health care cost trend rate – ultimate | **5.10** | 5.50 | **5.00** | 5.00 |

1 The assumptions for life expectancies are provided within Note 28a.

Volatility arises in the post-retirement benefit obligation for each of the post-retirement medical and life insurance plans due to the following actuarial assumptions applied in the measurement of the post-retirement benefit obligation:
- Discount rate: similar as for defined benefit pension plans, a decrease in the yield of high-quality corporate bonds will increase the post-retirement benefit obligation for these plans. Conversely, an increase in the yield of high-quality corporate bonds will decrease the post-retirement benefit obligation for these plans.
- Average health care cost trend rate: an increase in health care costs would generally increase the post-retirement benefit obligation.
- Life expectancy: as some plan participants have lifetime benefits under these plans, an increase in life expectancy would increase the post-retirement benefit obligation.

The table below presents a sensitivity analysis for each significant actuarial assumption showing how the post-retirement benefit obligation would have been affected by changes in the relevant actuarial assumption that were reasonably possible at the balance sheet date.

**Sensitivity analysis of significant actuarial assumptions**[1]

| | Increase / (decrease) in post-retirement benefit obligation | | | |
|---|---|---|---|---|
| | UK | | US | |
| *CHF million* | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 |
| **Discount rate** | | | | |
| Increase by 50 basis points | **(1)** | (2) | **(3)** | (2) |
| Decrease by 50 basis points | **2** | 2 | **3** | 2 |
| **Average health care cost trend rate** | | | | |
| Increase by 100 basis points | **3** | 4 | **1** | (1) |
| Decrease by 100 basis points | **(3)** | (4) | **(1)** | 1 |
| **Life expectancy** | | | | |
| Increase in longevity by one additional year | **2** | 2 | **5** | 5 |

1 The sensitivity analyses are based on a change in one assumption while holding all other assumptions constant, so that interdependencies between the assumptions are excluded.

### c) Defined contribution plans

UBS AG sponsors a number of defined contribution plans in locations outside of Switzerland. The locations with significant defined contribution plans are the UK and the US. Certain plans permit employees to make contributions and earn matching or other contributions from UBS AG. The employer contributions to these plans are recognized as an expense which, for the years ended 31 December 2015, 2014 and 2013, amounted to CHF 239 million, CHF 244 million and CHF 236 million, respectively.

**Note 28 Pension and other post-employment benefit plans (continued)**

## d) Related party disclosure

UBS AG is the principal provider of banking services for the pension fund of UBS AG in Switzerland. In this function, UBS AG is engaged to execute most of the pension fund's banking activities. These activities can include, but are not limited to, trading and securities lending and borrowing. The non-Swiss UBS AG pension funds do not have a similar banking relationship with UBS AG.

In 2008, UBS AG sold certain bank-occupied properties to the Swiss pension fund. Simultaneously, UBS AG and the Swiss pension fund entered into lease-back arrangements for some of the properties with 25-year lease terms and two renewal options for 10 years each. During 2009, UBS AG renegotiated one of the lease contracts, which reduced UBS AG's remaining lease commitment. In 2013, after the first five years, the early break options for most of the leases were not exercised, which resulted in an increase in the minimum commitment for an additional five years. As of 31 December 2015, the minimum commitment toward the Swiss pension fund under the related leases is approximately CHF 11 million (31 December 2014: CHF 14 million).

The following amounts have been received or paid by UBS AG from and to the pension funds in respect of these banking activities and arrangements.

**Related party disclosure**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| **Received by UBS AG** | | | |
| Fees | **33** | 33 | 33 |
| **Paid by UBS AG** | | | |
| Rent | **5** | 6 | 8 |
| Interest | **(1)** | 0 | 1 |
| Dividends and capital repayments | **14** | 4 | 2 |

The transaction volumes in UBS shares and UBS AG debt instruments are as follows.

**Transaction volumes – UBS shares and UBS AG debt instruments**

| | For the year ended | |
|---|---|---|
| | **31.12.15** | 31.12.14 |
| **Financial instruments bought by pension funds** | | |
| UBS shares[1] (in thousands of shares) | **1,544** | 2,092 |
| UBS AG debt instruments (par values in CHF million) | **3** | 4 |
| **Financial instruments sold by pension funds or matured** | | |
| UBS shares[1] (in thousands of shares) | **2,255** | 1,735 |
| UBS AG debt instruments (par values in CHF million) | **4** | 4 |

1 Represents purchases / sales of UBS AG shares up to 28 November 2014 and purchases / sales of UBS Group AG shares thereafter. Refer to Note 32 for more information.

UBS AG defined contribution pension funds held 15,782,722 UBS Group AG shares with a fair value of CHF 306 million as of 31 December 2015 (31 December 2014: 16,253,804 UBS Group AG shares with a fair value of CHF 276 million).

More information on the fair value of the plan assets of the defined benefit pension plans are disclosed in Note 28a.

## Note 29 Equity participation and other compensation plans

### a) Plans offered

The UBS Group operates several equity participation and other compensation plans to align the interests of executives, managers and staff with the interests of shareholders. Some plans (e.g., Equity Plus and Equity Ownership Plan) are granted to eligible employees in approximately 50 countries and are designed to meet the legal, tax and regulatory requirements of each country in which they are offered. Certain plans are used in specific countries, business areas (e.g., awards granted within Wealth Management Americas), or are only offered to members of the Group Executive Board (GEB). The UBS Group operates compensation plans on a mandatory, discretionary and voluntary basis. The explanations below provide a general description of the terms of the most significant plans offered by the Group which relate to the performance year 2015 (awards granted in 2016) and those from prior years that were partly expensed in 2015.

➔ **Refer to Note 1a item 25 for a description of the accounting policy related to equity participation and other compensation plans**

#### Transfer of deferred compensation plans

As part of the Group reorganization in 2014, UBS Group AG assumed obligations of UBS AG as grantor in connection with certain outstanding awards under employee share, option, notional fund and deferred cash compensation plans. As a result of the transfer, UBS Group AG assumed all responsibilities and rights associated with the grantor role for the plans from UBS AG, including the right of recharge to its subsidiaries employing the personnel. Obligations relating to deferred compensation plans which are required to be, and have been, granted by employing and/or sponsoring subsidiaries have not been assumed by UBS Group AG and will continue on this basis. Furthermore, obligations related to other compensation awards, such as defined benefit pension plans and other local awards, have not been assumed by UBS Group AG and are retained by the relevant employing and/or sponsoring subsidiaries. For the purpose of this Note, references to shares, performance shares, notional shares and options refer to UBS Group AG instruments for the period after the transfer and to UBS AG instruments for the period before the transfer.

The tables within this Note outline the effects from equity participation and other compensation plans on the UBS AG income statement, as well as the movements in UBS share and notional share awards retained by UBS AG.

#### Mandatory share-based compensation plans

Equity Ownership Plan (EOP): Select employees receive a portion of their annual performance-related compensation above a certain threshold in the form of an EOP award in UBS shares, notional shares or UBS performance shares (notional shares that are subject to performance conditions). From February 2014 onwards, only notional shares and UBS performance shares have been granted. Since 2011, performance shares have been granted to EOP participants who are Key Risk-Takers, Group Managing Directors (GMD) or employees whose incentive awards exceed a certain threshold, and since 2013 to GEB members. For performance shares granted in respect of the performance years 2012 and thereafter, the performance conditions are based on the Group return on tangible equity and the divisional return on attributed equity (for Corporate Center participants, the return on attributed equity of the Group excluding Corporate Center). Awards issued outside the normal performance year cycle, such as replacement awards or sign-on awards, may be offered in deferred cash under the EOP plan rules.

Awards in UBS shares allow for voting and dividend rights during the vesting period, whereas notional and performance shares represent a promise to receive UBS shares at vesting and do not carry voting rights during the vesting period. Notional and performance shares granted before February 2014 have no rights to dividends, whereas for awards granted since February 2014 employees are entitled to receive a dividend equivalent that may be paid in notional shares and/or cash, and which will vest on the same terms and conditions as the award. Awards granted in the form of UBS shares, notional shares and performance shares are settled by delivering UBS shares at vesting, except in countries where this is not permitted for legal or tax reasons. EOP awards granted until 2012 generally vested in three equal increments over a three-year vesting period and awards granted since March 2013 generally vest in equal increments in years two and three following grant. The awards are generally forfeitable upon, among other circumstances, voluntary termination of employment with UBS AG. Compensation expense is recognized in the performance year if the employee meets the retirement eligibility requirements at the date of grant. Otherwise, compensation expense is recognized from the grant date to the earlier of the vesting date or the retirement eligibility date of the employee, on a tiered basis.

Senior Executive Equity Ownership Plan (SEEOP): Up to 2012 (performance year 2011), GEB members and selected senior executives received a portion of their mandatory deferral in UBS shares or notional shares, which vest in one-fifth increments over a five-year vesting period and are forfeitable if certain conditions are not met. Awards granted in 2011 and 2012 are subject to the same performance conditions as performance shares granted under the EOP. They will only vest in full if the participant's business division is profitable (for Corporate Center participants, the Group as a whole must be profitable) in the financial year preceding scheduled vesting. Awards granted under SEEOP are settled by delivering UBS shares at vesting. Compensation expense is recognized on the same basis as for share-settled EOP awards. No new SEEOP awards were granted since 2012. From 2013 (performance year 2012), GEB members have received EOP performance awards.

**Note 29 Equity participation and other compensation plans (continued)**

Incentive Performance Plan (IPP): In 2010, GEB members and certain other senior employees received part of their annual incentive in the form of performance shares granted under the IPP. Each performance share granted was a contingent right to receive between one and three UBS shares at vesting, depending on the achievement of share price targets. Vesting was subject to continued employment with UBS AG and certain other conditions. The IPP awards vested in March 2015. Compensation expense was recognized on a tiered basis from the grant date to the earlier of the vesting date or the retirement eligibility date of the employee. IPP was a one-time plan granted in 2010 only.

Performance Equity Plan (PEP): In 2012 GEB members received part of their annual incentive in the form of performance shares granted under the PEP. Each performance share was a contingent right to receive between zero and two UBS shares at vesting, depending on the achievement of Economic Profit (EP) and Total Shareholder Return (TSR) targets. Vesting was subject to continued employment with UBS AG and certain other conditions. The last PEP awards vested in March 2015. Compensation expense was recognized on a tiered basis from the grant date to the earlier of the vesting date or the retirement eligibility date of the employee. No PEP awards were granted after 2012.

Special Plan Award Program for the Investment Bank 2012 (SPAP): In April 2012, certain Managing Directors and Group Managing Directors of the Investment Bank were granted an award of UBS shares which vested in 2015. Vesting was subject to performance conditions, continued employment with the firm and certain other conditions. Compensation expense was recognized from the grant date to the earlier of the vesting date or the retirement eligibility date of the employee.

Role-based allowances (RBA): In line with market practice, in certain countries, employees are entitled to receive a role-based allowance in addition to their base salary. This allowance reflects the market value of a specific role and is only paid as long as the employee is within such a role. The allowance is generally paid in cash and above a threshold it is granted in blocked shares. Such shares will be unblocked in equal instalments after two and three years. The compensation expense is recognized in the year of grant.

## Mandatory deferred cash compensation plans

Deferred Contingent Capital Plan (DCCP): The DCCP is a mandatory performance award deferral plan for all employees whose total compensation exceeds a certain threshold. For awards granted up to January 2015, employees received part of their annual incentive in the form of notional bonds, which are a right to receive a cash payment at vesting. For awards granted for the performance years 2014 and 2015, employees have been awarded notional additional tier 1 (AT1) instruments, which at the discretion of UBS Group AG (consolidated) can either be settled in the form of a cash payment or a perpetual, marketable AT1 instrument. Awards vest in full after five years, subject to there being no trigger event. Awards granted under the DCCP forfeit if UBS Group AG's consolidated phase-in common equity tier 1 capital ratio falls below 10% for GEB members and 7% for all other employees. In addition, awards are also forfeited if a viability event occurs, that is, if FINMA provides a written notice to UBS Group AG that the DCCP awards must be written down to prevent an insolvency, bankruptcy or failure of UBS Group AG (consolidated), or if UBS Group AG (consolidated) receives a commitment of extraordinary support from the public sector that is necessary to prevent such an event. For GEB members, an additional performance condition applies. If UBS Group AG (consolidated) does not achieve an adjusted profit before tax for any year during the vesting period, GEB members forfeit 20% of their award for each loss-making year. For awards granted up to January 2015, interest on the awards is paid annually for performance years in which the firm generates an adjusted profit before tax. For awards granted since February 2015 interest payments are discretionary. The awards are subject to standard forfeiture and harmful acts provisions, including voluntary termination of employment with UBS AG. Compensation expense is recognized in the performance year if the employee meets the retirement eligibility requirements at the date of grant. Otherwise, compensation expense is recognized ratably from the grant date to the earlier of the vesting date or the retirement eligibility date of the employee.

Long-Term Deferred Retention Senior Incentive Scheme (LTDRSIS): Awards granted under the LTDRSIS are granted to employees in Australia and represent a profit share amount based on the profitability of the Australian business. Awards vest after three years and include an arrangement which allows for unpaid installments to be reduced if the business has a loss during the calendar year preceding vesting. The awards are generally forfeitable upon voluntary termination of employment with UBS AG. Compensation expense is recognized in the performance year if the employee meets the retirement eligibility requirements at the date of the grant. Otherwise, compensation expense is recognized ratably from the grant date to the earlier of the vesting date or the retirement eligibility date of the employee. 2014 was the last year awards were granted under LTDRSIS.

Asset Management Equity Ownership Plan: In order to align their compensation with the performance of the funds they manage, Asset Management employees who receive EOP awards receive them in the form of cash-settled notional funds. The amount depends on the value of the relevant underlying Asset Management funds at the time of vesting. The awards are generally forfeitable upon, among other circumstances, voluntary termination of employment with UBS AG. Compensation expense is recognized in the performance year if the employee meets the retirement eligibility requirements at the date of grant. Otherwise, compensation expense is recognized from the grant date to the earlier of the vesting date or the retirement eligibility date of the employee, on a tiered basis.

## Note 29 Equity participation and other compensation plans (continued)

### Wealth Management Americas financial advisor compensation

Financial advisor compensation plans generally provide for cash payments and deferred awards that are formula driven and fluctuate in proportion to the level of business activity.

UBS AG also may enter into compensation commitments with certain new financial advisors primarily as a recruitment incentive and to incentivize certain eligible active financial advisors to achieve specified revenue production and other performance thresholds. The compensation may be earned and paid to the employee during a period of continued employment and may be forfeited under certain circumstances.

GrowthPlus is a program for selected financial advisors whose revenue production and length of service exceeds defined thresholds from 2010 through 2017. Compensation arrangements were granted in 2010, 2011 and 2015, with potential arrangements to be granted in 2018. The awards vest ratably over seven years from grant with the exception of the 2018 arrangement, which vests over five years.

PartnerPlus is a mandatory deferred cash compensation plan for certain eligible financial advisors. Awards (UBS AG company contributions) are based on a predefined formula during the performance year. Participants are also allowed to voluntarily contribute additional amounts otherwise payable during the year, up to a certain percentage of their pay, which are vested upon contribution. Company contributions and voluntary contributions are credited with interest in accordance with the terms of the plan. Rather than being credited with interest, a participant may elect to have voluntary contributions, along with vested company contributions, credited with notional earnings based on the performance of various mutual funds. Company contributions and interest on both company and voluntary contributions ratably vest in 20% increments six to ten years following grant date. Company contributions and interest/notional earnings on both company and voluntary contributions are forfeitable under certain circumstances. Compensation expense for awards is recognized in the performance year if the employee meets the qualifying separation eligibility requirements at the date of grant. Otherwise, compensation expense for awards is recognized ratably commencing in the performance year to the earlier of the vesting date or the qualifying separation eligibility date of the employee. Compensation expense for voluntary contributions is recognized in the year of deferral.

### Discretionary share-based compensation plans

Key Employee Stock Appreciation Rights Plan (KESAP) and Key Employee Stock Option Plan (KESOP): Until 2009, key and high potential employees were granted discretionary share-settled stock appreciation rights (SARs) or UBS options with a strike price not less than the fair market value of a UBS share on the date the SAR or option was granted. A SAR gives employees the right to receive a number of UBS shares equal to the value of any appreciation in the market price of a UBS share between the grant date and the exercise date. One option gives the right to acquire one registered UBS share at the option's strike price. SARs and options are settled by delivering UBS shares, except in countries where this is not permitted for legal reasons. These awards are generally forfeitable upon termination of employment with UBS AG. Compensation expense is recognized from the grant date to the earlier of the vesting date or the retirement eligibility date of the employee. No options or SARs awards have been granted since 2009.

### Voluntary share-based compensation plans

Equity Plus Plan (Equity Plus): Equity Plus is a voluntary plan that provides eligible employees with the opportunity to purchase UBS shares at market value and receive, at no additional cost, one free notional UBS share for every three shares purchased, up to a maximum annual limit. Share purchases may be made annually from the performance award and/or monthly through regular deductions from salary. If the shares purchased are held for three years, and in general if the employee remains in employment, the notional UBS shares vest. For notional UBS shares granted from April 2014 onwards, employees are entitled to receive a dividend equivalent which may be paid in either notional shares and/or cash. Prior to 2010, instead of notional shares participants received two UBS options for each share they purchased under this plan. The options had a strike price equal to the fair market value of a UBS share on the grant date, a two-year vesting period and generally expired ten years from the grant date. The options are forfeitable in certain circumstances and are settled by delivering UBS shares, except in countries where this is not permitted for legal reasons. Compensation expense for Equity Plus is recognized from the grant date to the earlier of the vesting date or the retirement eligibility date of the employee.

## Note 29 Equity participation and other compensation plans (continued)

### b) Effect on the income statement

**Effect on the income statement for the financial year and future periods**

The following table summarizes the compensation expenses recognized for the year ended 31 December 2015 and deferred compensation expenses that will be recognized as an expense in the income statements of 2016 and later. The deferred compensation expenses in the table also include vested and non-vested awards granted mainly in February 2016, which relate to the performance year 2015.

**Personnel expenses – Recognized and deferred[1]**

| | Personnel expenses for the year ended 2015 | | | Personnel expenses deferred to 2016 and later | | |
|---|---|---|---|---|---|---|
| *CHF million* | Expenses relating to awards for 2015 | Expenses relating to awards for prior years | Total | Relating to awards for 2015 | Relating to awards for prior years | Total |
| **Performance awards** | | | | | | |
| Cash performance awards | 2,073 | (94) | 1,980 | 0 | 0 | 0 |
| Deferred Contingent Capital Plan (DCCP) | 172 | 258 | 429 | 343 | 446 | 789 |
| Deferred cash plans (DCP and other cash plans) | 0 | 12 | 12 | 0 | 3 | 3 |
| Equity Ownership Plan (EOP / SEEOP) – UBS shares | 261 | 461 | 722 | 524 | 338 | 861 |
| Incentive Performance Plan (IPP) | 0 | 0 | 0 | 0 | 0 | 0 |
| Total UBS share plans | 261 | 461 | 722 | 524 | 338 | 861 |
| Equity Ownership Plan (EOP) – notional funds | 28 | 38 | 67 | 34 | 35 | 69 |
| **Total performance awards** | **2,535** | **675** | **3,210** | **900** | **822** | **1,722** |
| **Variable compensation** | | | | | | |
| Variable compensation – other | 184 | 162 | 346[2] | 248[3] | 293[4] | 541 |
| Financial advisor compensation – cash payments | 2,460 | 0 | 2,460 | 0 | 0 | 0 |
| Compensation commitments with recruited financial advisors | 43 | 692 | 735 | 940 | 1,899 | 2,839 |
| GrowthPlus and other deferral plans | 132 | 142 | 275 | 710 | 456 | 1,166 |
| UBS share plans | 37 | 45 | 82 | 66 | 115 | 182 |
| Wealth Management Americas: Financial advisor compensation[5] | 2,673 | 879 | 3,552 | 1,716 | 2,470 | 4,186 |
| **Total** | **5,391** | **1,716** | **7,108** | **2,864** | **3,585** | **6,449** |

1 Total share-based personnel expenses recognized for the year ended 31 December 2015 were CHF 1,028 million and were comprised of UBS share plans of CHF 807 million, Equity Ownership Plan – notional funds of CHF 67 million, related social security costs of CHF 56 million and other compensation plans (reported within Variable compensation – other) of CHF 98 million. 2 Includes replacement payments of CHF 76 million (of which CHF 65 million related to prior years), forfeiture credits of CHF 86 million (all related to prior years), severance payments of CHF 157 million (all related to 2015) and retention plan and other payments of CHF 198 million (of which CHF 183 million related to prior years). 3 Includes DCCP interest expense of CHF 160 million for DCCP awards 2015 (granted in 2016). 4 Includes DCCP interest expense of CHF 200 million for DCCP awards 2014, 2013 and 2012 (granted in 2015, 2014 and 2013). 5 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated based on financial advisor productivity, firm tenure, assets and other variables. It also includes charges related to compensation commitments with financial advisors entered into at the time of recruitment which are subject to vesting requirements. Amounts reflected as deferred expenses represent the maximum deferred exposure as of the balance sheet date.

## Note 29 Equity participation and other compensation plans (continued)

**Personnel expenses – Recognized and deferred[1]**

| | Personnel expenses for the year ended 2014 | | | Personnel expenses deferred to 2015 and later | | |
|---|---|---|---|---|---|---|
| *CHF million* | Expenses relating to awards for 2014 | Expenses relating to awards for prior years | Total | Relating to awards for 2014 | Relating to awards for prior years | Total |
| **Performance awards** | | | | | | |
| Cash performance awards | 1,822 | (108) | 1,714 | 0 | 0 | 0 |
| Deferred Contingent Capital Plan (DCCP) | 155 | 194 | 349 | 312 | 386 | 698 |
| Deferred cash plans (DCP and other cash plans) | 0 | 12 | 12 | 0 | 8 | 8 |
| Equity Ownership Plan (EOP / SEEOP) – UBS shares | 215 | 444 | 659 | 459 | 367 | 826 |
| Incentive Performance Plan (IPP) | 0 | 21 | 21 | 0 | 0 | 0 |
| Total UBS share plans | 215 | 465 | 680 | 459 | 367 | 826 |
| Equity Ownership Plan (EOP) – notional funds | 24 | 41 | 65 | 36 | 33 | 69 |
| **Total performance awards** | **2,216** | **604** | **2,820** | **807** | **794** | **1,601** |
| **Variable compensation** | | | | | | |
| Variable compensation – other | 260 | 206 | 466[2] | 307[3] | 340[4] | 647 |
| Financial advisor compensation – cash payments | 2,396 | 0 | 2,396 | 0 | 0 | 0 |
| Compensation commitments with recruited financial advisors | 39 | 636 | 675 | 524 | 2,058 | 2,582 |
| GrowthPlus and other deferral plans | 81 | 153 | 234 | 189 | 528 | 717 |
| UBS share plans | 23 | 57 | 80 | 41 | 143 | 184 |
| Wealth Management Americas: Financial advisor compensation[5] | 2,539 | 846 | 3,385 | 754 | 2,729 | 3,483 |
| **Total** | **5,015** | **1,656** | **6,671** | **1,868** | **3,863** | **5,731** |

1 Total share-based personnel expenses recognized for the year ended 31 December 2014 were CHF 999 million and were comprised of UBS share plans of CHF 800 million, Equity Ownership Plan – notional funds of CHF 65 million, related social security costs of CHF 41 million and other compensation plans (reported within Variable compensation – other) of CHF 93 million. 2 Includes replacement payments of CHF 81 million (of which CHF 70 million related to prior years), forfeiture credits of CHF 70 million (all related to prior years), severance payments of CHF 162 million (all related to 2014) and retention plan and other payments of CHF 292 million (of which CHF 206 million related to prior years). 3 Includes DCCP interest expense of CHF 121 million for DCCP awards 2014 (granted in 2015). 4 Includes DCCP interest expense of CHF 161 million for DCCP awards 2013 and 2012 (granted in 2014 and 2013). 5 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated based on financial advisor productivity, firm tenure, assets and other variables. It also includes charges related to compensation commitments with financial advisors entered into at the time of recruitment which are subject to vesting requirements. Amounts reflected as deferred expenses represent the maximum deferred exposure as of the balance sheet date.

During 2015 and 2014, UBS AG accelerated the recognition of expenses for certain deferred compensation arrangements relating to employees that were affected by restructuring programs. Based on the redundancy provisions of the plan rules, these employees retain their deferred compensation awards. However, as the employees are not required to provide future service, compensation expense relating to these awards was accelerated to the termination date based on the shortened service period. The amounts accelerated and recognized relating to share-based payment awards in 2015 and 2014 were CHF 9 million and CHF 38 million respectively, and the amounts related to deferred cash awards were CHF 10 million and CHF 29 million, respectively.

UBS AG also shortened the service period for certain employees in accordance with the mutually agreed termination provisions of their deferred compensation awards. Expense recognition was accelerated to the termination date. The amounts accelerated and recognized relating to share-based payment awards in 2015 and 2014 were CHF 6 million and CHF 11 million, respectively, and the amounts related to deferred cash awards were CHF 11 million and CHF 8 million, respectively.

## Note 29 Equity participation and other compensation plans (continued)

**Personnel expenses – Recognized and deferred**

| | Personnel expenses for the year ended 2013 | | | Personnel expenses deferred to 2014 and later | | |
|---|---|---|---|---|---|---|
| *CHF million* | Expenses relating to awards for 2013 | Expenses relating to awards for prior years | Total | Relating to awards for 2013 | Relating to awards for prior years | Total |
| **Performance awards** | | | | | | |
| Cash performance awards | 1,942 | (30) | 1,912 | 0 | 0 | 0 |
| Deferred Contingent Capital Plan (DCCP) | 152 | 96 | 248 | 348 | 230 | 578 |
| Deferred cash plans (DCP and other cash plans) | 2 | 53 | 55 | 7 | 12 | 19 |
| Equity Ownership Plan (EOP / SEEOP) – UBS shares | 190 | 466 | 656 | 520 | 307 | 827 |
| Performance Equity Plan (PEP) | 0 | 3 | 3 | 0 | 0 | 0 |
| Incentive Performance Plan (IPP) | 0 | 33 | 33 | 0 | 21 | 21 |
| Total UBS share plans | 190 | 502 | 692 | 520 | 328 | 848 |
| Equity Ownership Plan (EOP) – notional funds | 19 | 60 | 79 | 37 | 36 | 73 |
| **Total performance awards** | **2,305** | **681** | **2,986** | **912** | **606** | **1,518** |
| **Variable compensation** | | | | | | |
| Variable compensation – other | 152 | 136 | 288[2] | 340[3] | 398[4] | 738 |
| Financial advisor compensation – cash payments | 2,219 | 0 | 2,219 | 0 | 0 | 0 |
| Compensation commitments with recruited financial advisors | 33 | 605 | 638 | 440 | 2,098 | 2,538 |
| GrowthPlus and other deferral plans | 62 | 132 | 194 | 107 | 564 | 671 |
| UBS share plans | 20 | 69 | 89 | 45 | 165 | 210 |
| Wealth Management Americas: Financial advisor compensation[5] | 2,334 | 806 | 3,140 | 592 | 2,827 | 3,419 |
| **Total** | **4,791** | **1,623** | **6,414** | **1,844** | **3,831** | **5,675** |

1 Total share-based personnel expenses recognized for the year ended 31 December 2013 were CHF 1.042 million and were comprised of UBS share plans of CHF 787 million, Equity Ownership Plan – notional funds of CHF 79 million, related social security costs of CHF 65 million and other compensation plans (reported within Variable compensation – other) of CHF 111 million. 2 Includes replacement payments of CHF 78 million (of which CHF 72 million related to prior years), forfeiture credits of CHF 146 million (all related to prior years), severance payments of CHF 114 million (all related to 2013) and retention plan and other payments of CHF 242 million (of which CHF 210 million related to prior years). 3 Includes DCCP interest expense of CHF 101 million for DCCP awards 2013 (granted in 2014). 4 Includes DCCP interest expense of CHF 109 million for DCCP awards 2012 (granted in 2013). 5 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated based on financial advisor productivity, firm tenure, assets and other variables. It also includes charges related to compensation commitments with financial advisors entered into at the time of recruitment which are subject to vesting requirements. Amounts reflected as deferred expenses represent the maximum deferred exposure as of the balance sheet date.

### Additional disclosures on mandatory, discretionary and voluntary share-based compensation plans (including notional funds granted under EOP)

The total share-based personnel expenses recognized for the years ended 31 December 2015, 2014 and 2013 were CHF 1,028 million, CHF 999 million and CHF 1,042 million, respectively. This includes the current period expense, amortization and related social security costs for awards issued in prior periods and performance year expensing for awards granted to retirement-eligible employees where the terms of the awards do not require the employee to provide future services.

The total compensation expenses for non-vested share-based awards granted up to 31 December 2015 relating to prior years to be recognized in future periods is CHF 553 million and will be recognized as personnel expenses over a weighted average period of 1.9 years. This includes UBS share plans, the Equity Ownership Plan (notional funds), other variable compensation and the Equity Plus Plan. Total deferred compensation amounts included in the 2015 table differ from this amount as the deferred compensation amounts also include non-vested awards granted in February 2016 related to the performance year 2015.

Actual payments to participants in cash-settled share-based plans, including amounts granted as notional funds issued under the EOP, for the years ended 31 December 2015 and 2014 were CHF 98 million and CHF 90 million, respectively. The total carrying amount of the liability related to these plans was CHF 170 million as of 31 December 2015 and CHF 143 million as of 31 December 2014.

## Note 29 Equity participation and other compensation plans (continued)

### c) Movements during the year

#### UBS share and performance share awards

Movements in UBS share and notional share awards were as follows:

**UBS share awards**

| | Number of shares 2015 | Weighted average grant date fair value (CHF) | Number of shares 2014 | Weighted average grant date fair value (CHF) |
|---|---|---|---|---|
| Outstanding, at the beginning of the year | 467,848 | 15 | 186,633,491 | 15 |
| Shares awarded during the year | 259,334 | 17 | 56,851,628 | 18 |
| Distributions during the year | (279,415) | 15 | (69,921,325) | 16 |
| Forfeited during the year | (20,323) | 19 | (6,859,017) | 16 |
| Transfer to UBS Group AG | | | (166,704,777) | 15 |
| Outstanding, at the end of the year | 427,443 | 18 | 467,848 | 15 |
| *of which: shares vested for accounting purposes* | *138,908* | | *26,946* | |

The fair value of shares that became legally vested and were distributed (i.e., all restrictions were fulfilled) during the years ended 2015 and 2014 was CHF 1,443 million and CHF 1,269 million, respectively.

### d) Valuation

#### UBS share awards

UBS AG measures compensation expense based on the average market price of the UBS share on the grant date as quoted on the SIX Swiss Exchange, taking into consideration post-vesting sale and hedge restrictions, non-vesting conditions and market conditions, where applicable. The fair value of the share awards subject to post-vesting sale and hedge restrictions is discounted based upon the duration of the post-vesting restriction and is referenced to the cost of purchasing an at-the-money European put option for the term of the transfer restriction. The weighted average discount for share and performance share awards granted during 2015 is approximately 16.7% (2014: 12.9%) of the market price of the UBS share. The grant date fair value of notional UBS shares without dividend entitlements also includes a deduction for the present value of future expected dividends to be paid between the grant date and distribution.

## Note 30 Interests in subsidiaries and other entities

### a) Interests in subsidiaries

UBS AG defines its significant subsidiaries as those entities that, either individually or in aggregate, contribute significantly to UBS AG's financial position or results of operations, based on a number of criteria, including the subsidiaries' equity and their contribution to UBS AG's total assets and profit and loss before tax, in accordance with the requirements set by IFRS 12, Swiss regulations and the regulations of the US Securities and Exchange Commission (SEC).

#### Individually significant subsidiaries

The table below lists UBS AG's individually significant subsidiaries as of 31 December 2015. Unless otherwise stated, the subsidiaries listed below have share capital consisting solely of ordinary shares, which are held fully by UBS AG, and the proportion of ownership interest held is equal to the voting rights held by UBS AG. The country where the respective registered office is located is also generally the principal place of business.

**Individually significant subsidiaries as of 31 December 2015**

| Company | Registered office | Primary business division | Share capital in million | | Equity interest accumulated in % |
|---|---|---|---|---|---|
| UBS Americas Holding LLC | Wilmington, Delaware, USA | Corporate Center | USD | 1,200.0[1] | 100.0 |
| UBS Bank USA | Salt Lake City, Utah, USA | Wealth Management Americas | USD | 0.0 | 100.0 |
| UBS Financial Services Inc. | Wilmington, Delaware, USA | Wealth Management Americas | USD | 0.0 | 100.0 |
| UBS Limited | London, United Kingdom | Investment Bank | GBP | 226.6 | 100.0 |
| UBS Securities LLC | Wilmington, Delaware, USA | Investment Bank | USD | 1,283.1[2] | 100.0 |
| UBS Switzerland AG | Zurich, Switzerland | Personal & Corporate Banking | CHF | 10.0 | 100.0 |

1 Comprised of common share capital of USD 1,000 and non-voting preferred share capital of USD 1,200,000,000. 2 Comprised of common share capital of USD 100,000 and non-voting preferred share capital of USD 1,283,000,000.

In 2015, UBS transferred its Personal & Corporate Banking and Wealth Management business booked in Switzerland from UBS AG to UBS Switzerland AG, a newly formed bank subsidiary.

➔ **Refer to Note 32 for more information**

UBS Americas Holding LLC, UBS Limited and UBS Switzerland AG are fully held by UBS AG. UBS Bank USA, UBS Financial Services Inc. and UBS Securities LLC are fully held, directly or indirectly, by UBS Americas Holding LLC.

## Note 30 Interests in subsidiaries and other entities (continued)

### Other subsidiaries

The table below lists other subsidiaries that are not individually significant but that contribute to UBS AG's total assets and aggregated profit before tax thresholds and are thereby disclosed in accordance with the requirements set by the SEC.

**Other subsidiaries as of 31 December 2015**

| Company | Registered office | Primary business division | Share capital in million | | Equity interest accumulated in % |
|---|---|---|---|---|---|
| Topcard Service AG | Glattbrugg, Switzerland | Personal & Corporate Banking | CHF | 0.2 | 100.0 |
| UBS (Italia) SpA | Milan, Italy | Wealth Management | EUR | 95.0 | 100.0 |
| UBS (Luxembourg) S.A. | Luxembourg, Luxembourg | Wealth Management | CHF | 150.0 | 100.0 |
| UBS Americas Inc. | Wilmington, Delaware, USA | Corporate Center | USD | 0.0 | 100.0 |
| UBS Asset Management (Americas) Inc. | Wilmington, Delaware, USA | Asset Management | USD | 0.0 | 100.0 |
| UBS Asset Management (Australia) Ltd | Sydney, Australia | Asset Management | AUD | 20.1[1] | 100.0 |
| UBS Asset Management (Deutschland) GmbH | Frankfurt, Germany | Asset Management | EUR | 7.7 | 100.0 |
| UBS Asset Management (Hong Kong) Limited | Hong Kong, Hong Kong | Asset Management | HKD | 150.0 | 100.0 |
| UBS Asset Management (Japan) Ltd | Tokyo, Japan | Asset Management | JPY | 2,200.0 | 100.0 |
| UBS Asset Management (Singapore) Ltd | Singapore, Singapore | Asset Management | SGD | 4.0 | 100.0 |
| UBS Asset Management (UK) Ltd | London, United Kingdom | Asset Management | GBP | 125.0 | 100.0 |
| UBS Asset Management AG | Zurich, Switzerland | Asset Management | CHF | 0.1 | 100.0 |
| UBS Australia Holdings Pty Ltd | Sydney, Australia | Investment Bank | AUD | 46.7 | 100.0 |
| UBS Bank, S.A. | Madrid, Spain | Wealth Management | EUR | 97.2 | 100.0 |
| UBS Beteiligungs-GmbH & Co. KG | Frankfurt, Germany | Wealth Management | EUR | 568.8 | 100.0 |
| UBS Card Center AG | Glattbrugg, Switzerland | Personal & Corporate Banking | CHF | 0.1 | 100.0 |
| UBS Credit Corp. | Wilmington, Delaware, USA | Wealth Management Americas | USD | 0.0 | 100.0 |
| UBS Deutschland AG | Frankfurt, Germany | Wealth Management | EUR | 176.0 | 100.0 |
| UBS Fund Advisor, L.L.C. | Wilmington, Delaware, USA | Wealth Management Americas | USD | 0.0 | 100.0 |
| UBS Fund Mangement (Luxembourg) S.A. | Luxembourg, Luxembourg | Asset Management | EUR | 13.0 | 100.0 |
| UBS Fund Mangement (Switzerland) AG | Basel, Switzerland | Asset Management | CHF | 1.0 | 100.0 |
| UBS Hedge Fund Solutions LLC | Wilmington, Delaware, USA | Asset Management | USD | 0.1 | 100.0 |
| UBS Italia SIM SpA | Milan, Italy | Investment Bank | EUR | 15.1 | 100.0 |
| UBS O'Connor LLC | Dover, Delaware, USA | Asset Management | USD | 1.0 | 100.0 |
| UBS Real Estate Securities Inc. | Wilmington, Delaware, USA | Investment Bank | USD | 0.0 | 100.0 |
| UBS Realty Investors LLC | Boston, Massachusetts, USA | Asset Management | USD | 9.0 | 100.0 |
| UBS Securities (Thailand) Ltd | Bangkok, Thailand | Investment Bank | THB | 500.0 | 100.0 |
| UBS Securities Australia Ltd | Sydney, Australia | Investment Bank | AUD | 0.3[1] | 100.0 |
| UBS Securities Canada Inc. | Toronto, Canada | Investment Bank | CAD | 10.0 | 100.0 |
| UBS Securities España Sociedad de Valores SA | Madrid, Spain | Investment Bank | EUR | 15.0 | 100.0 |
| UBS Securities India Private Limited | Mumbai, India | Investment Bank | INR | 140.0 | 100.0 |
| UBS Securities Japan Co., Ltd. | Tokyo, Japan | Investment Bank | JPY | 46,450.0 | 100.0 |
| UBS Securities Pte. Ltd. | Singapore, Singapore | Investment Bank | SGD | 420.4 | 100.0 |
| UBS Services LLC | Wilmington, Delaware, USA | Corporate Center | USD | 0.0 | 100.0 |
| UBS South Africa (Proprietary) Limited | Sandton, South Africa | Investment Bank | ZAR | 0.0 | 100.0 |
| UBS Trust Company of Puerto Rico | Hato Rey, Puerto Rico | Wealth Management Americas | USD | 0.1 | 100.0 |
| UBS UK Properties Limited | London, United Kingdom | Corporate Center | GBP | 132.0 | 100.0 |

1 Includes a nominal amount relating to redeemable preference shares.

## Note 30 Interests in subsidiaries and other entities (continued)

### Changes in consolidation scope

During 2015, a number of subsidiaries were incorporated in order to improve the resolvability of UBS AG in response to too big to fail requirements, namely UBS Americas Holding LLC, UBS Switzerland AG and UBS Asset Management AG. UBS Fund Services (Cayman) Ltd and a few smaller subsidiaries of Asset Management were removed from the scope of consolidation as part of the sale of the Alternative Fund Services business.

### Non-controlling interests

As of 31 December 2015 and 31 December 2014, non-controlling interests were not material to UBS AG. In addition, as of these dates there were no significant restrictions on UBS AG's ability to access or use the assets and settle the liabilities of subsidiaries resulting from protective rights of non-controlling interests.

➔ **Refer to the "Statement of changes in equity" for more information**

### Consolidated structured entities

UBS AG consolidates a structured entity (SE) if it has power over the relevant activities of the entity, exposure to variable returns and the ability to use its power to affect its returns. Consolidated SEs include certain investment funds, securitization vehicles and client investment vehicles. UBS AG has no individually significant subsidiaries that are SEs.

Investment fund SEs are generally consolidated when UBS AG's aggregate exposure combined with its decision making rights indicate the ability to use such power in a principal capacity. Typically UBS AG will have decision making rights as fund manager, earning a management fee, and will provide seed capital at the inception of the fund or hold a significant percentage of the fund units. Where other investors do not have the substantive ability to remove UBS AG as decision maker, UBS AG is deemed to have control and therefore consolidates the fund.

Securitization SEs are generally consolidated when UBS AG holds a significant percentage of the asset backed securities issued by the SE and has the power to remove without cause the servicer of the asset portfolio.

Client investment SEs are generally consolidated when UBS AG has a substantive liquidation right over the SE or a decision right over the assets held by the SE and has exposure to variable returns through derivatives traded with the SE or holding notes issued by the SE.

In 2015 and 2014, UBS AG has not entered into any contractual obligation that could require UBS AG to provide financial support to consolidated SEs. In addition, UBS AG did not provide support, financial or otherwise, to a consolidated SE when UBS AG was not contractually obligated to do so, nor has UBS AG an intention to do so in the future. Further, UBS AG did not provide support, financial or otherwise, to a previously unconsolidated SE that resulted in UBS AG controlling the SE during the reporting period.

## Note 30 Interests in subsidiaries and other entities (continued)

### b) Interests in associates and joint ventures

As of 31 December 2015 and 2014, no associate or joint venture was individually material to UBS AG. In addition, there were no significant restrictions on the ability of associates or joint ventures to transfer funds to UBS AG or its subsidiaries in the form of cash dividends or to repay loans or advances made. There were no quoted market prices for any associates or joint ventures of UBS AG.

**Investments in associates and joint ventures**

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Carrying amount at the beginning of the year | **927** | 842 |
| Additions | **12** | 1 |
| Disposals | **(2)** | (2) |
| Share of comprehensive income | **151** | 103 |
| *of which: share of net profit*[1,2] | ***169*** | *94* |
| *of which: share of other comprehensive income*[3] | ***(18)*** | *9* |
| Dividends received | **(114)** | (54) |
| Foreign currency translation | **(20)** | 38 |
| **Carrying amount at the end of the year** | **954** | 927 |
| *of which: associates* | ***925*** | *900* |
| *of which: UBS Securities Co. Limited, Beijing*[4] | ***411*** | *404* |
| *of which: SIX Group AG, Zurich*[5] | ***413*** | *406* |
| *of which: other associates* | ***102*** | *90* |
| *of which: joint ventures* | ***29*** | *27* |

1 For 2015, consists of CHF 158 million from associates and CHF 11 million from joint ventures. For 2014, consists of CHF 83 million from associates and CHF 11 million from joint ventures. 2 In 2015, the SIX Group sold its stake in STOXX Ltd and Indexium Ltd. The UBS share of the resulting gain on sale was CHF 81 million. 3 For 2015, consists of CHF (18) million from associates and CHF 0 million from joint ventures. For 2014, consists of CHF 8 million from associates and CHF 0 million from joint ventures. 4 During 2015, UBS AG's equity interest increased to 24.99% (20.0% as of 31 December 2014). 5 UBS AG's equity interest amounts to 17.3%. UBS AG is represented on the Board of Directors.

## Note 30 Interests in subsidiaries and other entities (continued)

### c) Interests in unconsolidated structured entities

During 2015, UBS AG sponsored the creation of various SEs and interacted with a number of non-sponsored SEs, including securitization vehicles, client vehicles as well as certain investment funds, which UBS AG did not consolidate as of 31 December 2015 because it did not control these entities.

➔ **Refer to Note 1a item 3 for more information on the nature, purpose, activities and financing structure of these entities**

The table below presents UBS AG's interests in and maximum exposure to loss from unconsolidated SEs as of 31 December 2015. In addition, the total assets held by the SEs in which UBS AG had an interest as of 31 December 2015 are provided, except for investment funds sponsored by third parties, for which the carrying value of UBS AG's interest as of 31 December 2015 has been disclosed.

**Interests in unconsolidated structured entities**

| | 31.12.15 | | | | |
|---|---|---|---|---|---|
| *CHF million, except where indicated* | Securitization vehicles | Client vehicles | Investment funds | Total | Maximum exposure to loss[1] |
| Trading portfolio assets | 1,060 | 463 | 6,102 | 7,624 | 7,624 |
| Positive replacement values | 41 | 101 | 57 | 200 | 200 |
| Financial assets designated at fair value | | 97[2] | | 97 | 1,636 |
| Loans | 0 | 0 | 101 | 101 | 101 |
| Financial investments available-for-sale | | 3,396 | 102 | 3,498 | 3,498 |
| Other assets | 0 | 45[2] | 0 | 45 | 937 |
| **Total assets** | 1,101[3] | 4,102 | 6,362 | 11,565 | |
| Negative replacement values | 30[4] | 631 | 0 | 661 | 19 |
| **Total liabilities** | 30[5] | 631 | 0 | 661 | |
| **Assets held by the unconsolidated structured entities in which UBS AG had an interest (CHF billion)** | 141[6] | 43[7] | 320[8] | | |

| | 31.12.14 | | | | |
|---|---|---|---|---|---|
| *CHF million, except where indicated* | Securitization vehicles | Client vehicles | Investment funds | Total | Maximum exposure to loss[1] |
| Trading portfolio assets | 1,955 | 676 | 8,079 | 10,711 | 10,711 |
| Positive replacement values | 26 | 83 | 2 | 111 | 111 |
| Financial assets designated at fair value | | 115[2] | 102 | 217 | 2,422 |
| Loans | 466 | 40 | 206 | 712 | 712 |
| Financial investments available-for-sale | | 4,029 | 94 | 4,123 | 4,123 |
| Other assets | | 52[2] | | 52 | 1,248 |
| **Total assets** | 2,447[3] | 4,996 | 8,482 | 15,925 | |
| Negative replacement values | 245[4] | 27 | 75 | 347 | 21 |
| **Total liabilities** | 245[5] | 27 | 75 | 347 | |
| **Assets held by the unconsolidated structured entities in which UBS AG had an interest (CHF billion)** | 355[6] | 113[7] | 304[8] | | |

1 For purposes of this disclosure, maximum exposure to loss amounts do not consider the risk-reducing effects of collateral or other credit enhancements. 2 Represents the carrying value of loan commitments, both designated at fair value and held at amortized cost. The maximum exposure to loss for these instruments is equal to the notional amount. 3 As of 31 December 2015, CHF 0.9 billion of the CHF 1.1 billion was held in Corporate Center – Non-core and Legacy Portfolio. As of 31 December 2014, CHF 2.2 billion of the CHF 2.4 billion was held in Corporate Center – Non-core and Legacy Portfolio. 4 Comprised of credit default swap (CDS) liabilities and other swap liabilities. The maximum exposure to loss for CDS is equal to the sum of the negative carrying value and the notional amount. For other swap liabilities, no maximum exposure to loss is reported. 5 Entirely held in Corporate Center – Non-core and Legacy Portfolio. 6 Represents principal amount outstanding. 7 Represents the market value of total assets. 8 Represents the net asset value of the investment funds sponsored by UBS AG (31 December 2015: CHF 310 billion, 31 December 2014: CHF 296 billion) and the carrying value of UBS AG's interests in the investment funds not sponsored by UBS (31 December 2015: CHF 10 billion, 31 December 2014: CHF 8 billion).

**Note 30 Interests in subsidiaries and other entities (continued)**

UBS AG retains or purchases interests in unconsolidated SEs in the form of direct investments, financing, guarantees, letters of credit, derivatives and through management contracts.

For retained interests, UBS AG's maximum exposure to loss is generally equal to the carrying value of UBS AG's interest in the SE, with the exception of guarantees, letters of credit and credit derivatives for which the contract's notional amount, adjusted for losses already incurred, represents the maximum loss that UBS AG is exposed to. In addition, the current fair value of derivative swap instruments with a positive replacement value only, such as total return swaps, is presented as UBS AG's maximum exposure to loss. Risk exposure for these swap instruments could change over time with market movements.

The maximum exposure to loss disclosed in the table on the previous page does not reflect UBS AG's risk management activities, including effects from financial instruments that UBS AG may utilize to economically hedge the risks inherent in the unconsolidated SE or the risk-reducing effects of collateral or other credit enhancements.

In 2015 and 2014, UBS AG did not provide support, financial or otherwise, to an unconsolidated SE when UBS AG was not contractually obligated to do so, nor has UBS AG an intention to do so in the future.

In 2015 and 2014, income and expenses from interests in unconsolidated SEs primarily resulted from mark-to-market movements recognized in net trading income, which have generally been hedged with other financial instruments, as well as fee and commission income received from UBS sponsored funds.

*Interests in securitization vehicles*

As of 31 December 2015 and 31 December 2014, UBS AG retained interests in various securitization vehicles. As of 31 December 2015, a majority of our interests in securitization vehicles related to a portfolio of credit default swap (CDS) positions referencing asset-backed securities (ABS), which are held within Corporate Center – Non-core and Legacy Portfolio. The Investment Bank also retained interests in securitization vehicles related to financing, underwriting, secondary market and derivative trading activities.

In some cases UBS AG may be required to absorb losses from an unconsolidated SE before other parties because UBS AG's interest is subordinated to others in the ownership structure. An overview of UBS AG's interests in unconsolidated securitization vehicles and the relative ranking and external credit rating of those interests as of 31 December 2015 and 31 December 2014 is presented in the table on the following page.

➔ **Refer to Note 1a items 3 and 12 for more information on when UBS AG is viewed as the sponsor of an SE and for UBS AG's accounting policies regarding securitization vehicles established by UBS AG**

*Interests in client vehicles*

As of 31 December 2015 and 31 December 2014, UBS AG retained interests in client vehicles sponsored by UBS AG and third parties that relate to financing and derivative activities and to hedge structured product offerings. Included within these investments are securities guaranteed by US government agencies.

*Interests in investment funds*

UBS AG holds interests in a number of investment funds, primarily resulting from seed investments or to hedge structured product offerings. In addition to the interests disclosed in the table on the previous page, UBS AG manages the assets of various pooled investment funds and receives fees that are based, in whole or part, on the net asset value of the fund and/or the performance of the fund. The specific fee structure is determined based on various market factors and considers the nature of the fund, the jurisdiction of incorporation as well as fee schedules negotiated with clients. These fee contracts represent an interest in the fund as they align UBS AG's exposure to investors, providing a variable return that is based on the performance of the entity. Depending on the structure of the fund, these fees may be collected directly from the fund assets and/or from the investors. Any amounts due are collected on a regular basis and are generally backed by the assets of the fund. UBS AG did not have any material exposure to loss from these interests as of 31 December 2015 or as of 31 December 2014.

## Note 30 Interests in subsidiaries and other entities (continued)

### Interests in unconsolidated securitization vehicles[1]

| | 31.12.15 | | | | |
|---|---|---|---|---|---|
| *CHF million, except where indicated* | Residential mortgage-backed securities | Commercial mortgage-backed securities | Other asset-backed securities[2] | Re-securitization[3] | Total |
| **Sponsored by UBS AG** | | | | | |
| Interests in senior tranches | 0 | 54 | 0 | 13 | 66 |
| *of which: rated investment grade* | | *54* | *0* | | *54* |
| *of which: defaulted* | | | | *13* | *13* |
| Interests in mezzanine tranches | 3 | 7 | 0 | 0 | 10 |
| *of which: rated investment grade* | | *7* | | | *7* |
| *of which: rated sub-investment grade* | *2* | | | | *2* |
| *of which: defaulted* | *1* | | | | *1* |
| **Total** | 3 | 61 | 0 | 13 | 77 |
| *of which: Trading portfolio assets* | *3* | *61* | *0* | *13* | *77* |
| **Total assets held by the vehicles in which UBS AG had an interest (CHF billion)** | 0 | 28 | 0 | 1 | 29 |
| **Not sponsored by UBS AG** | | | | | |
| Interests in senior tranches | 284 | 66 | 383 | 140 | 873 |
| *of which: rated investment grade* | *284* | *65* | *383* | *140* | *872* |
| Interests in mezzanine tranches | 61 | 17 | 17 | 0 | 95 |
| *of which: rated investment grade* | *58* | *17* | *17* | *0* | *92* |
| *of which: defaulted* | *3* | | | | *3* |
| Interests in junior tranches | 11 | 3 | 0 | 0 | 14 |
| *of which: rated investment grade* | *11* | *0* | | | *11* |
| *of which: not rated* | *0* | *3* | | | *3* |
| **Total** | 356 | 86 | 400 | 140 | 983 |
| *of which: Trading portfolio assets* | *356* | *86* | *400* | *140* | *983* |
| **Total assets held by the vehicles in which UBS AG had an interest (CHF billion)** | 64 | 37 | 6 | 2 | 109 |

1 This table excludes derivative transactions with securitization vehicles. 2 Includes credit card, car and student loan structures. 3 Includes collateralized debt obligations.

## Note 30 Interests in subsidiaries and other entities (continued)

### Interests in unconsolidated securitization vehicles[1] (continued)

| | 31.12.14 | | | | |
|---|---|---|---|---|---|
| *CHF million, except where indicated* | Residential mortgage-backed securities | Commercial mortgage-backed securities | Other asset-backed securities[2] | Re-securitization[3] | Total |
| **Sponsored by UBS AG** | | | | | |
| Interests in senior tranches | 0 | 59 | 1 | 389 | 450 |
| *of which: rated investment grade* | *0* | *59* | *1* | *381* | *442* |
| *of which: defaulted* | | | | *8* | *8* |
| Interests in mezzanine tranches | 1 | 16 | 0 | 6 | 22 |
| *of which: rated investment grade* | | *7* | | *6* | *13* |
| *of which: defaulted* | *1* | *1* | | | *2* |
| *of which: not rated* | | *8* | | | *8* |
| **Total** | 1 | 75 | 1 | 395 | 472 |
| *of which: Trading portfolio assets* | *1* | *75* | *1* | *14* | *91* |
| *of which: Loans* | | | | *381* | *381* |
| **Total assets held by the vehicles in which UBS AG had an interest (CHF billion)** | 1 | 14 | 3 | 2 | 20 |
| **Not sponsored by UBS AG** | | | | | |
| Interests in senior tranches | 376 | 293 | 454 | 207 | 1,329 |
| *of which: rated investment grade* | *369* | *286* | *452* | *205* | *1,313* |
| *of which: rated sub-investment grade* | *6* | *6* | *2* | *1* | *15* |
| Interests in mezzanine tranches | 154 | 143 | 172 | 62 | 531 |
| *of which: rated investment grade* | *134* | *105* | *164* | *54* | *457* |
| *of which: rated sub-investment grade* | *15* | *37* | *8* | *8* | *69* |
| *of which: defaulted* | *5* | *1* | | *0* | *5* |
| Interests in junior tranches | 68 | 18 | 1 | 2 | 89 |
| *of which: rated investment grade* | *56* | *11* | | | *67* |
| *of which: rated sub-investment grade* | *4* | *6* | | | *10* |
| *of which: defaulted* | *0* | *0* | *1* | | *1* |
| *of which: not rated* | *8* | *1* | | *2* | *11* |
| **Total** | 598 | 453 | 627 | 271 | 1,949 |
| *of which: Trading portfolio assets* | *598* | *453* | *588* | *225* | *1,865* |
| *of which: Loans* | | *0* | *39* | *46* | *85* |
| **Total assets held by the vehicles in which UBS AG had an interest (CHF billion)** | 115 | 115 | 88 | 12 | 331 |

1 This table excludes derivative transactions with securitization vehicles. 2 Includes credit card, car and student loan structures. 3 Includes collateralized debt obligations.

## Note 30 Interests in subsidiaries and other entities (continued)

*Sponsored unconsolidated structured entities in which UBS AG did not have an interest*

For several sponsored SEs, no interest was held by UBS AG as of 31 December 2015 or as of 31 December 2014. However, during the respective reporting period UBS AG transferred assets, provided services and held instruments that did not qualify as an interest in these sponsored SEs, and accordingly earned income or incurred expenses from these entities. The table below presents the income earned and expenses incurred directly from these entities during 2015 and 2014 as well as corresponding asset information. The table does not include income earned and expenses incurred from risk management activities, including income and expenses from financial instruments that UBS AG may utilize to economically hedge instruments transacted with the unconsolidated SEs.

**Sponsored unconsolidated structured entities in which UBS AG did not have an interest at year end[1]**

| | As of or for the year ended | | | |
|---|---|---|---|---|
| | **31.12.15** | | | |
| *CHF million, except where indicated* | **Securitization vehicles** | **Client vehicles** | **Investment funds** | **Total** |
| Net interest income | **2** | **(11)** | **0** | **(10)** |
| Net fee and commission income | **0** | **0** | **57** | **57** |
| Net trading income | **18** | **208** | **48** | **274** |
| **Total income** | **20** | **197** | **104** | **321** |
| **Asset information (CHF billion)** | **8[2]** | **1[3]** | **12[4]** | |

| | As of or for the year ended | | | |
|---|---|---|---|---|
| | 31.12.14 | | | |
| *CHF million, except where indicated* | Securitization vehicles | Client vehicles | Investment funds | Total |
| Net interest income | 6 | (51) | | (44) |
| Net fee and commission income | | | 54 | 54 |
| Net trading income | 63 | (158) | 10 | (85) |
| **Total income** | 69 | (208) | 64 | (75) |
| **Asset information (CHF billion)** | 4[2] | 1[3] | 14[4] | |

1 These tables exclude profit attributable to preferred noteholders of CHF 77 million for the year ended 31 December 2015 and CHF 142 million for the year ended 31 December 2014. 2 Represents the amount of assets transferred to the respective securitization vehicles. Of the total amount transferred, CHF 3 billion was transferred by UBS AG (31 December 2014: CHF 1 billion) and CHF 5 billion was transferred by third parties (31 December 2014: CHF 3 billion). 3 Represents total assets transferred to the respective client vehicles. Of the total amount transferred, CHF 1 billion was transferred by UBS AG (31 December 2014: CHF 1 billion) and CHF 1 billion was transferred by third parties (31 December 2014: CHF 1 billion). 4 Represents the total net asset value of the respective investment funds.

## Note 30 Interests in subsidiaries and other entities (continued)

During 2015 and 2014, UBS AG primarily earned fees and recognized net trading income from sponsored SEs in which UBS AG did not hold an interest. The majority of the fee income arose from investment funds that are sponsored and administrated by UBS AG, but managed by third parties. As UBS AG does not provide any active management services, UBS AG was not exposed to risk from the performance of these entities and was therefore deemed not to have an interest in them.

In certain structures, the fees receivable for administrative purposes may be collected directly from the investors and have therefore not been included in the table above.

In addition, UBS AG incurred net trading income from mark-to-market movements arising primarily from derivatives, such as interest rate swaps and credit derivatives, in which UBS AG purchases protection, and financial liabilities designated at fair value, which do not qualify as interests because UBS AG does not absorb variability from the performance of the entity. The net income reported does not reflect economic hedges or other mitigating effects from UBS AG's risk management activities.

During 2015, UBS AG and third parties transferred assets totaling CHF 9 billion (2014: CHF 6 billion) into sponsored securitization and client vehicles created in 2015. For sponsored investment funds, transfers arose during the period as investors invested and redeemed positions, thereby changing the overall size of the funds, which, when combined with market movements, resulted in a total closing net asset value of CHF 12 billion (31 December 2014: CHF 14 billion).

## Note 31 Business combinations

In 2015 and 2014, UBS AG did not complete any significant business combinations.

## Note 32 Changes in organization and disposals

### Measures to improve the resolvability of the Group in response to too big to fail requirements in Switzerland and other countries in which the Group operates

In December 2014, UBS Group AG completed an exchange offer for the shares of UBS AG and established UBS Group AG as the holding company for UBS Group. During 2015, UBS Group AG filed and completed a court procedure under article 33 of the Swiss Stock Exchange Act (SESTA procedure) resulting in the cancellation of the shares of the remaining minority shareholders of UBS AG. As a result, UBS Group AG now owns 100% of the outstanding shares of UBS AG.

In June 2015, UBS AG transferred its Personal & Corporate Banking and Wealth Management business booked in Switzerland to UBS Switzerland AG.

In the second quarter of 2015, UBS AG also completed the implementation of a more self-sufficient business and operating model for UBS Limited, its investment banking subsidiary in the UK, under which UBS Limited bears and retains a larger proportion of the risk and reward in its business activities.

Also during 2015, UBS AG established a new subsidiary, UBS Americas Holding LLC, which UBS AG intends to designate as its intermediate holding company for its US subsidiaries prior to the 1 July 2016 deadline under new rules for foreign banks in the US pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank). During the third quarter of 2015, UBS AG contributed its equity participation in the principal US operating subsidiaries to UBS Americas Holding LLC to meet the requirement under Dodd-Frank that the intermediate holding company own all of our US operations, except branches of UBS AG.

Lastly, UBS AG also established UBS Asset Management AG, a new subsidiary, in 2015.

### Sale of subsidiaries and businesses

In 2015, UBS AG sold its Alternative Fund Services (AFS) business to Mitsubishi UFJ Financial Group Investor Services. The Asset Management Investment Fund Services business, which provides fund administration for traditional mutual funds, was not included in the sale. Upon completion of the sale, UBS AG recognized a gain on sale of CHF 56 million and reclassified an associated net foreign currency translation gain of CHF 119 million from *Other comprehensive income* to the *Income statement.*

Also during 2015, UBS AG completed the sale of certain subsidiaries and businesses within Wealth Management, which resulted in the recognition of a combined gain of CHF 197 million.

Finally, in 2015, UBS AG agreed to sell certain businesses within Wealth Management and these sales are expected to close in 2016 subject to customary closing conditions. As of 31 December 2015, the assets and liabilities of these subsidiaries and businesses were presented as a disposal group held-for-sale within *Other assets* and *Other liabilities* and amounted to CHF 279 million and CHF 235 million, respectively. UBS recognized a loss of CHF 28 million in 2015 related to these sales.

### Restructuring expenses

Restructuring expenses arise from programs that materially change either the scope of business undertaken by UBS AG or the manner in which such business is conducted. Restructuring expenses are temporary costs that are necessary to effect such programs and include items such as severance and other personnel-related expenses, duplicate headcount costs, impairment and accelerated depreciation of assets, contract termination costs, consulting fees, and related infrastructure and system costs. These costs are presented in the income statement according to the underlying nature of the expense. As the costs associated with restructuring programs are temporary in nature, and in order to provide a more thorough understanding of business performance, such costs are separately presented in this Note.

## Note 32 Changes in organization and disposals

**Net restructuring expenses by business division and Corporate Center unit**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| Wealth Management | **323** | 185 | 178 |
| Wealth Management Americas | **137** | 55 | 59 |
| Personal & Corporate Banking | **101** | 64 | 54 |
| Asset Management | **82** | 50 | 43 |
| Investment Bank | **396** | 261 | 210 |
| Corporate Center | **194** | 61 | 229 |
| *of which: Services* | ***138*** | *30* | *(6)* |
| *of which: Non-core and Legacy Portfolio* | ***56*** | *31* | *235* |
| **Total net restructuring expenses** | **1,233** | 677 | 772 |
| *of which: personnel expenses* | ***458*** | *327* | *156* |
| *of which: general and administrative expenses* | ***760*** | *319* | *548* |
| *of which: depreciation and impairment of property, equipment and software* | ***12*** | *29* | *68* |
| *of which: amortization and impairment of intangible assets* | ***2*** | *2* | *0* |

**Net restructuring expenses by personnel expense category**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| Salaries | **311** | 145 | 65 |
| Variable compensation – performance awards | **38** | 35 | (15) |
| Variable compensation – other | **108** | 138 | 88 |
| Contractors | **46** | 28 | 3 |
| Social security | **5** | 4 | 5 |
| Pension and other post-employment benefit plans | **(65)** | (29) | 8 |
| Other personnel expenses | **15** | 6 | 3 |
| **Total net restructuring expenses: personnel expenses** | **458** | 327 | 156 |

**Net restructuring expenses by general and administrative expense category**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
| Occupancy | **109** | 49 | 35 |
| Rent and maintenance of IT and other equipment | **31** | 23 | 8 |
| Administration | **7** | 3 | 2 |
| Travel and entertainment | **16** | 11 | 4 |
| Professional fees | **187** | 148 | 76 |
| Outsourcing of IT and other services | **316** | 82 | 59 |
| Other[1] | **95** | 2 | 364 |
| **Total net restructuring expenses: general and administrative expenses** | **760** | 319 | 548 |

1 Mainly comprised of onerous real estate lease contracts.

## Note 33 Operating leases and finance leases

Information on lease contracts classified as operating leases where UBS AG is the lessee is provided in Note 33a and information on finance leases where UBS AG acts as a lessor is provided in Note 33b.

### a) Operating lease commitments

As of 31 December 2015, UBS AG was obligated under a number of non-cancellable operating leases for premises and equipment used primarily for banking purposes. The significant premises leases usually include renewal options and escalation clauses in line with general office rental market conditions, as well as rent adjustments based on price indices. However, the lease agreements do not contain contingent rent payment clauses and purchase options, nor do they impose any restrictions on UBS AG's ability to pay dividends, engage in debt financing transactions or enter into further lease agreements.

| *CHF million* | 31.12.15 |
|---|---|
| **Expenses for operating leases to be recognized in:** | |
| 2016 | 743 |
| 2017 | 683 |
| 2018 | 558 |
| 2019 | 475 |
| 2020 | 413 |
| 2021 and thereafter | 1,858 |
| Subtotal commitments for minimum payments under operating leases | 4,730 |
| Less: Sublease rental income commitments | 348 |
| **Net commitments for minimum payments under operating leases** | **4,382** |

| *CHF million* | 31.12.15 | 31.12.14 | 31.12.13 |
|---|---|---|---|
| **Gross operating lease expense recognized in the income statement** | 741 | 759 | 792 |
| Sublease rental income | 70 | 73 | 74 |
| **Net operating lease expense recognized in the income statement** | 671 | 686 | 718 |

### b) Finance lease receivables

UBS AG leases a variety of assets to third parties under finance leases, such as commercial vehicles, production lines, medical equipment, construction equipment and aircrafts. At the end of the respective leases, assets may be sold to third parties or be leased further. Lessees may participate in any sales proceeds achieved. Leasing charges cover the cost of the assets less their residual value as well as financing costs.

As of 31 December 2015, unguaranteed residual values of CHF 167 million had been accrued, and the accumulated allowance for uncollectible minimum lease payments receivable amounted to CHF 10 million. No contingent rents were received in 2015.

**Lease receivables**

| *CHF million* | 31.12.15 | | |
|---|---|---|---|
| | Total minimum lease payments | Unearned finance income | Present value |
| 2016 | 341 | 23 | 318 |
| 2017–2020 | 651 | 38 | 613 |
| thereafter | 158 | 6 | 152 |
| **Total** | **1,150** | **67** | **1,083** |

## Note 34 Related parties

UBS AG defines related parties as associates (entities which are significantly influenced by UBS AG), post-employment benefit plans for the benefit of UBS AG employees, key management personnel, close family members of key management personnel and entities which are, directly or indirectly, controlled or jointly controlled by key management personnel or their close family members. Key management personnel is defined as members of the Board of Directors (BoD) and Group Executive Board (GEB).

### a) Remuneration of key management personnel

The non-independent members of the BoD have top management employment contracts and receive pension benefits upon retirement. Total remuneration of the non-independent members of the BoD and GEB members, including those who stepped down during 2015, is provided in the table below.

**Remuneration of key management personnel**

| *CHF million* | **31.12.15** | 31.12.14 | 31.12.13 |
|---|---|---|---|
| Base salaries and other cash payments | **21**[1] | 22[1] | 19 |
| Incentive awards – cash[2] | **9** | 8 | 10 |
| Annual incentive award under DCCP | **20** | 18 | 19 |
| Employer's contributions to retirement benefit plans | **1** | 2 | 2 |
| Benefits in kind, fringe benefits (at market value) | **2** | 1 | 2 |
| Equity-based compensation[3] | **39** | 35 | 38 |
| **Total** | **92** | 86 | 89 |

1 Includes role-based allowances that have been made in line with with market practice in response to the EU Capital Requirements Directive of 2013 (CRD IV). 2 Includes immediate and deferred cash. 3 Expenses for shares granted is measured at grant date and allocated over the vesting period, generally for 5 years. In 2015, 2014 and 2013, equity-based compensation was entirely comprised of EOP awards.

The independent members of the BoD do not have employment or service contracts with UBS AG, and thus are not entitled to benefits upon termination of their service on the BoD. Payments to these individuals for their services as external board members amounted to CHF 6.7 million in 2015, CHF 7.1 million in 2014 and CHF 7.6 million in 2013.

### b) Equity holdings of key management personnel

| | **31.12.15** | 31.12.14 |
|---|---|---|
| Number of stock options from equity participation plans held by non-independent members of the BoD and the GEB members[1] | **1,401,686** | 1,738,598 |
| Number of shares held by members of the BoD, GEB and parties closely linked to them[2] | **3,324,650** | 3,716,957 |

1 Refer to Note 29 for more information. 2 Excludes shares granted under variable compensation plans with forfeiture provisions.

Of the share totals above, 95,597 shares were held by close family members of key management personnel on 31 December 2015 and 31 December 2014. No shares were held by entities that are directly or indirectly controlled or jointly controlled by key management personnel or their close family members on 31 December 2015 and 31 December 2014. Refer to Note 29 for more information. As of 31 December 2015, no member of the BoD or GEB was the beneficial owner of more than 1% of UBS Group AG's shares.

## Note 34 Related parties (continued)

### c) Loans, advances and mortgages to key management personnel

Non-independent members of the BoD and GEB members have been granted loans, fixed advances and mortgages on the same terms and conditions that are available to other employees, which are based on terms and conditions granted to third parties but are adjusted for differing credit risk. Independent BoD members are granted loans and mortgages under general market conditions.

Movements in the loan, advances and mortgage balances are as follows.

**Loans, advances and mortgages to key management personnel[1]**

| *CHF million* | 2015 | 2014 |
|---|---|---|
| Balance at the beginning of the year | 27 | 20 |
| Additions | 6 | 10 |
| Reductions | (1) | (3) |
| Balance at the end of the year | 33 | 27 |

1 Loans are granted by UBS AG. All loans are secured loans.

### d) Other related party transactions with entities controlled by key management personnel

In 2015, UBS AG did not enter into transactions with entities which are directly or indirectly controlled or jointly controlled by UBS AG's key management personnel or their close family members. In 2014, UBS AG entered into transactions with Immo Heudorf AG (Switzerland).

**Other related party transactions**

| *CHF million* | 2015 | 2014 |
|---|---|---|
| Balance at the beginning of the year | 0 | 10 |
| Additions | 0 | 0 |
| Reductions | 0 | 10 |
| Balance at the end of the year[1] | 0 | 0 |

1 Comprised of loans.

In 2014 and 2015, entities controlled by key management personnel did not sell goods or provide services to UBS AG, and therefore did not receive any fees from UBS AG. Furthermore, UBS AG did not provide services to such entities in both 2014 and 2015, and therefore also did not receive any fees.

## Note 34 Related parties (continued)

### e) Transactions with associates and joint ventures

**Loans and outstanding receivables to associates and joint ventures**

| *CHF million* | **2015** | 2014 |
|---|---|---|
| Carrying value at the beginning of the year | **552** | 288 |
| Additions | **9** | 313 |
| Reductions | **(85)** | (1) |
| Impairment | **0** | (51) |
| Foreign currency translation | **0** | 3 |
| Carrying value at the end of the year | **476** | 552 |
| *of which: unsecured loans* | ***464*** | *539* |
| *includes allowances for credit losses* | ***1*** | *1* |

**Other transactions with associates and joint ventures**

| | As of or for the year ended | |
|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 |
| Payments to associates and joint ventures for goods and services received | **149** | 169 |
| Fees received for services provided to associates and joint ventures | **7** | 1 |
| Commitments and contingent liabilities to associates and joint ventures | **4** | 2 |

➔ **Refer to Note 30 for an overview of investments in associates and joint ventures**

### f) Receivables and payables from / to UBS Group AG and other subsidiaries of UBS Group AG

| *CHF million* | **2015** | 2014 |
|---|---|---|
| **Receivables** | | |
| Loans | **774** | 227 |
| Trading portfolio assets | **12** | 0 |
| Other assets | **93** | 80 |
| **Payables** | | |
| Due to customers | **12,323** | 772 |
| Other liabilities | **943** | 511 |

## Note 35 Invested assets and net new money

### Invested assets

Invested assets include all client assets managed by or deposited with UBS AG for investment purposes. Invested assets include managed fund assets, managed institutional assets, discretionary and advisory wealth management portfolios, fiduciary deposits, time deposits, savings accounts and wealth management securities or brokerage accounts. All assets held for purely transactional purposes and custody-only assets, including corporate client assets held for cash management and transactional purposes, are excluded from invested assets as UBS AG only administers the assets and does not offer advice on how the assets should be invested. Also excluded are non-bankable assets (e.g., art collections) and deposits from third-party banks for funding or trading purposes.

Discretionary assets are defined as client assets that UBS AG decides how to invest. Other invested assets are those where the client ultimately decides how the assets are invested. When a single product is created in one business division and sold in another, it is counted in both the business division that manages the investment and the one that distributes it. This results in double counting within UBS AG total invested assets, as both business divisions are independently providing a service to their respective clients, and both add value and generate revenue.

### Net new money

Net new money in a reporting period is the amount of invested assets that are entrusted to UBS AG by new and existing clients, less those withdrawn by existing clients and clients who terminated their relationship with UBS AG.

Net new money is calculated using the direct method, under which inflows and outflows to/from invested assets are determined at the client level based on transactions. Interest and dividend income from invested assets are not counted as net new money inflows. Market and currency movements as well as fees, commissions and interest on loans charged are excluded from net new money, as are the effects resulting from any acquisition or divestment of a UBS AG subsidiary or business. Reclassifications between invested assets and custody-only assets as a result of a change in the service level delivered are generally treated as net new money flows; however, where such change in service level directly results from a new externally-imposed regulation, the one-time net effect of the implementation is reported as an asset reclassification without net new money impact.

The Investment Bank does not track invested assets and net new money. However, when a client is transferred from the Investment Bank to another business division, this produces net new money even though client assets were already with UBS AG. There were no such transfers between the Investment Bank and other business divisions in 2015 and 2014.

### Invested assets and net new money

| | For the year ended | |
|---|---|---|
| *CHF billion* | **31.12.15** | 31.12.14 |
| Fund assets managed by UBS | **282** | 270 |
| Discretionary assets | **830** | 854 |
| Other invested assets | **1,577** | 1,610 |
| **Total invested assets[1]** | **2,689** | 2,734 |
| *of which: double count* | ***185*** | *173* |
| **Net new money[1]** | **27.7** | 58.9 |

1 Includes double counts.

### Development of invested assets

| | For the year ended | |
|---|---|---|
| *CHF billion* | **31.12.15** | 31.12.14 |
| Total invested assets at the beginning of the year[1] | **2,734** | 2,390 |
| Net new money | **28** | 59 |
| Market movements[2] | **(24)** | 115 |
| Foreign currency translation | **(31)** | 173 |
| Other effects | **(16)** | (3) |
| *of which: acquisitions/(divestments)* | ***(16)*** | *0* |
| **Total invested assets at the end of the year[1]** | **2,689** | 2,734 |

1 Includes double counts. 2 Includes interest and dividend income.

## Note 36 Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of foreign operations into Swiss francs.

| | Spot rate | | Average rate[1] | | |
|---|---|---|---|---|---|
| | As of | | For the year ended | | |
| | **31.12.15** | 31.12.14 | **31.12.15** | 31.12.14 | 31.12.13 |
| 1 USD | **1.00** | 0.99 | **0.97** | 0.92 | 0.92 |
| 1 EUR | **1.09** | 1.20 | **1.06** | 1.21 | 1.23 |
| 1 GBP | **1.48** | 1.55 | **1.47** | 1.51 | 1.45 |
| 100 JPY | **0.83** | 0.83 | **0.80** | 0.86 | 0.95 |

1 Monthly income statement items of foreign operations with a functional currency other than the Swiss franc are translated with month-end rates into Swiss francs. Disclosed average rates for a year represent an average of 12 month-end rates, weighted according to the income and expense volumes of all foreign operations with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for UBS AG.

## Note 37 Events after the reporting period

There have been no material events after the reporting period which would require disclosure in or adjustment to the 31 December 2015 Financial Statements.

## Note 38 Swiss GAAP requirements

The consolidated financial statements of UBS AG are prepared in accordance with International Financial Reporting Standards (IFRS). The Swiss Financial Market Supervisory Authority (FINMA) requires financial groups that present their financial statements under IFRS to provide a narrative explanation of the main differences between IFRS and Swiss GAAP (FINMA Circular 2015/1 and the Banking Ordinance). Included in this Note are the significant differences in the recognition and measurement between IFRS and the provisions of the Banking Ordinance and the guidelines of FINMA governing true and fair view financial statement reporting pursuant to Article 25 through Article 42 of the Banking Ordinance.

### 1. Consolidation

Under IFRS, all entities that are controlled by the holding entity are consolidated.

Under Swiss GAAP, controlled entities that are deemed immaterial to the group or that are held temporarily only are exempt from consolidation, but instead are recorded as participations or financial investments.

### 2. Financial investments classified as available-for-sale

Under IFRS, financial investments classified as available-for-sale are carried at fair value. Changes in fair value are recorded directly in equity until an investment is sold, collected or otherwise disposed of, or until an investment is determined to be impaired. At the time an available-for-sale investment is determined to be impaired, the cumulative unrealized loss previously recognized in equity is included in net profit or loss for the period. On disposal of a financial investment classified as available-for-sale, the cumulative unrealized gain or loss previously recognized in equity is reclassified to the income statement.

Under Swiss GAAP, classification and measurement of financial investments designated as available-for-sale depends on the nature of the investment. Equity instruments with no permanent holding intent, as well as debt instruments, are classified as *Financial investments* and measured at the lower of (amortized) cost or market value. Market value adjustments up to the original cost amount and realized gains or losses upon disposal of the investment are recorded in the income statement as *Other income from ordinary activities.* Equity instruments with a permanent holding intent are classified as participations in *Investments in subsidiaries and other participations* and measured at cost less impairment. Impairment losses are recorded in the income statement as *Impairment of investments in subsidiaries and other participations.* Reversal of impairments up to the original cost amount as well as realized gains or losses upon disposal of the investment are recorded as *Extraordinary income / Extraordinary expenses* in the income statement.

### 3. Cash flow hedges

Under IFRS, when hedge accounting is applied, the fair value gain or loss on the effective portion of the derivative designated as a cash flow hedge is recognized in equity. When the hedged cash flows materialize, the accumulated unrealized gain or loss is reclassified to the income statement.

Under Swiss GAAP, the effective portion of the fair value change of the derivative instrument used to hedge cash flow exposures is deferred on the balance sheet as *Other assets* or *Other liabilities*. The deferred amounts are released to the income statement when the hedged cash flows materialize.

### 4. Fair value option

Under IFRS, UBS AG applies the fair value option to certain financial assets and financial liabilities not held for trading. Instruments for which the fair value option is applied are accounted for at fair value with changes in fair value reflected in *Net trading income*. The fair value option is applied primarily to structured debt instruments, certain non-structured debt instruments, structured reverse repurchase and repurchase agreements and securities borrowing agreements, certain structured and non-structured loans as well as loan commitments.

Under Swiss GAAP, the fair value option can only be applied to structured debt instruments that consist of a debt host contract and one or more embedded derivatives that do not relate to own equity. Furthermore, changes in fair value attributable to changes in unrealized own credit are not recognized in the income statement and the balance sheet.

**Note 38 Swiss GAAP requirements (continued)**

## 5. Goodwill and intangible assets

Under IFRS, goodwill acquired in a business combination is not amortized but tested annually for impairment. Intangible assets with an indefinite useful life are also not amortized but tested annually for impairment.

Under Swiss GAAP, goodwill and intangible assets with indefinite useful lives are amortized over a period not exceeding five years, unless a longer useful life, which may not exceed 10 years, can be justified.

## 6. Pension and other post-employment benefit plans

Swiss GAAP permits the use of IFRS or Swiss accounting standards for pension and other post-employment benefit plans, with the election made on a plan-by-plan basis.

UBS AG has elected to apply IFRS (IAS 19) for the non-Swiss defined benefit plans and Swiss GAAP (FER 16) for the Swiss pension plan in its standalone financial statements. The requirements of Swiss GAAP are better aligned with the specific nature of Swiss pension plans, which are hybrid in that they combine elements of defined contribution and defined benefit plans, but are treated as defined benefit plans under IFRS. Key differences between Swiss GAAP and IFRS include the treatment of dynamic elements, such as future salary increases and future interest credits on retirement savings, which are not considered under the static method used in accordance with Swiss GAAP. Also, the discount rate used to determine the defined benefit obligation in accordance with IFRS is based on the yield of high-quality corporate bonds of the market in the respective pension plan country. The discount rate used in accordance with Swiss GAAP, i.e., the technical interest rate, is determined by the Pension Foundation Board based on the expected returns of the Board's investment strategy.

For defined benefit plans, IFRS requires the full defined benefit obligation net of the plan assets to be recorded on the balance sheet, with changes resulting from remeasurements recognized directly in equity. However, for plans for which IFRS is elected, Swiss GAAP requires that changes due to remeasurements are recognized in the income statement.

Swiss GAAP requires that employer contributions to the pension fund are recognized as personnel expenses in the income statement. Further, Swiss GAAP requires an assessment as to whether, based on the financial statements of the pension fund prepared in accordance with Swiss accounting standards (FER 26), an economic benefit to, or obligation of, the employer arises from the pension fund and is recognized in the balance sheet when conditions are met. Conditions for recording a pension asset or liability would be met if, for example, an employer contribution reserve is available or the employer is required to contribute to the reduction of a pension deficit (on a FER 26 basis).

## 7. Netting of replacement values

Under IFRS, replacement values and related cash collateral are reported on a gross basis unless the restrictive IFRS netting requirements are met: i) existence of master netting agreements and related collateral arrangements that are unconditional and legally enforceable, both in the normal course of business and in the event of default, bankruptcy or insolvency of UBS AG and its counterparties, and ii) UBS AG's intention to either settle on a net basis or to realize the asset and settle the liability simultaneously.

Under Swiss GAAP, replacement values and related cash collateral are generally reported on a net basis, provided the master netting and the related collateral agreements are legally enforceable in the event of default, bankruptcy or insolvency of UBS AG's counterparties.

## 8. Negative interest

Under IFRS, negative interest income arising on a financial asset does not meet the definition of interest income and, therefore, negative interest on financial assets and negative interest on financial liabilities is presented within interest expense and interest income, respectively.

Under Swiss GAAP, negative interest on financial assets is presented within interest income and negative interest on financial liabilities is presented within interest expense.

## 9. Extraordinary income and expense

Certain non-recurring and non-operating income and expense items, such as realized gains or losses from the disposal of participations, fixed and intangible assets, as well as reversals of impairments of participations and fixed assets, are classified as extraordinary items under Swiss GAAP. This distinction is not available under IFRS.

## 10. Other presentational differences

Under IFRS, financial statements are comprised of an Income statement, Statement of comprehensive income, Balance sheet, Statement of changes in equity, Statement of cash flows and Notes to the financial statements. Under Swiss GAAP, the concept of other comprehensive income does not exist and consequently no Statement of comprehensive income is required. In addition, various other presentational differences exist. ▲

## Note 39 Supplemental guarantor information required under SEC regulations

### Guarantee of PaineWebber securities

Prior to its acquisition by UBS in 2000, Paine Webber Group Inc. (PaineWebber) was an SEC registrant. Upon acquisition, PaineWebber was merged into UBS Americas Inc., a wholly owned subsidiary of UBS AG. Following the acquisition, UBS AG entered into a full and unconditional guarantee of the senior notes (Debt Securities) issued by PaineWebber. Under the guarantee, if UBS Americas Inc. fails to make any timely payment under the Debt Securities agreements, the holders of the Debt Securities or the Debt Securities trustee may demand payment from UBS AG without first proceeding against UBS Americas Inc.

As of 31 December 2015, the amount of outstanding senior notes of UBS Americas Inc. was approximately CHF 150 million. These senior notes mature between 2017 and 2018.

### Guarantee of other securities

Certain US-domiciled entities that are 100% legally owned by UBS AG have outstanding trust preferred securities, which are registered under the US Securities Act. These entities, UBS Preferred Funding Trust IV and UBS Preferred Funding Trust V, are not consolidated by UBS AG as UBS AG does not absorb any variability from the performance of these entities. However, UBS AG has fully and unconditionally guaranteed these securities. The non-consolidated issuing US domiciled entities are presented in a separate column in the supplemental guarantor information provided in the following tables. Amounts presented in this column are eliminated in the Elimination entries column, as these entities are not consolidated. UBS AG's obligations under the guarantee are subordinated to the prior payment in full of the deposit liabilities of UBS AG and all other liabilities of UBS AG.

As of 31 December 2015, the outstanding amount of the preferred securities was USD 1.3 billion and the amount of senior liabilities of UBS AG to which the holders of these securities would be subordinated was approximately CHF 872 billion.

### Joint liability of UBS Switzerland AG

In June 2015, the Retail & Corporate and Wealth Management businesses booked in Switzerland were transferred from UBS AG to UBS Switzerland AG through an asset transfer in accordance with the Swiss Merger Act. Under the terms of the asset transfer agreement, UBS Switzerland AG assumed joint liability for contractual obligations of UBS AG existing on the asset transfer date, including the existing guarantee of abovementioned PaineWebber and other securities. To reflect this joint liability, UBS Switzerland AG is, on a prospective basis, presented in a separate column as a subsidiary co-guarantor.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated income statement

| CHF million<br>For the year ended 31 December 2015 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Operating income** | | | | | | | |
| Interest income | 8,911 | 3,040 | 1,662 | 63 | 1,515 | (2,013) | 13,178 |
| Interest expense | (5,882) | (544) | (590) | | (1,321) | 1,888 | (6,449) |
| Net interest income | 3,029 | 2,496 | 1,072 | 63 | 194 | (125) | 6,729 |
| Credit loss (expense)/recovery | (109) | (12) | 0 | | 4 | 0 | (117) |
| Net interest income after credit loss expense | 2,921 | 2,484 | 1,072 | 63 | 198 | (126) | 6,612 |
| Net fee and commission income | 2,852 | 2,539 | 7,751 | | 4,115 | (72) | 17,184 |
| Net trading income | 5,252 | 709 | 274 | | 224 | (763) | 5,696 |
| Other income | 10,335 | 564 | 496 | | (917) | (9,366) | 1,112 |
| **Total operating income** | 21,359 | 6,296 | 9,592 | 63 | 3,620 | (10,326) | 30,605 |
| **Operating expenses** | | | | | | | |
| Personnel expenses | 6,800 | 1,607 | 6,281 | | 1,265 | 0 | 15,954 |
| General and administrative expenses | 549 | 2,579 | 3,442 | | 1,647 | 2 | 8,219 |
| Depreciation and impairment of property, equipment and software | 672 | 11 | 159 | | 76 | 0 | 918 |
| Amortization and impairment of intangible assets | 22 | | 73 | | 12 | 0 | 107 |
| **Total operating expenses** | 8,044 | 4,197 | 9,955 | | 3,001 | 2 | 25,198 |
| **Operating profit/(loss) before tax** | 13,315 | 2,099 | (362) | 63 | 619 | (10,327) | 5,407 |
| Tax expense/(benefit) | 1,136 | 489 | (1,200) | | (1,317) | (16) | (908) |
| Net profit/(loss) | 12,180 | 1,610 | 837 | 63 | 1,936 | (10,313) | 6,314 |
| Net profit/(loss) attributable to preferred noteholders | 77 | | | 31 | | (31) | 77 |
| Net profit/(loss) attributable to non-controlling interests | | | | | 3 | 0 | 3 |
| **Net profit/(loss) attributable to UBS AG shareholders** | 12,103 | 1,610 | 837 | 32 | 1,933 | (10,281) | 6,235 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of comprehensive income

| *CHF million*<br>For the year ended 31 December 2015 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Comprehensive income attributable to UBS AG shareholders** | | | | | | | |
| Net profit / (loss) | 12,103 | 1,610 | 837 | 32 | 1,933 | (10,281) | 6,235 |
| **Other comprehensive income** | | | | | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | | | | | |
| Foreign currency translation, net of tax | (11) | 0 | 121 | | (843) | 467 | (266) |
| Financial investments available-for-sale, net of tax | (51) | 43 | (21) | | (16) | (19) | (64) |
| Cash flow hedges, net of tax | (503) | (72) | 0 | | 0 | 57 | (518) |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | (564) | (29) | 100 | 0 | (859) | 504 | (848) |
| **Other comprehensive income that will not be reclassified to the income statement** | | | | | | | |
| Defined benefit plans, net of tax | 701 | (337) | (71) | | 27 | (15) | 304 |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | 701 | (337) | (71) | 0 | 27 | (15) | 304 |
| **Total other comprehensive income** | 136 | (366) | 29 | 0 | (832) | 489 | (545) |
| **Total comprehensive income attributable to shareholders** | 12,239 | 1,244 | 866 | 32 | 1,101 | (9,792) | 5,690 |
| Total comprehensive income attributable to preferred noteholders | 18 | 0 | 0 | 0 | 0 | 0 | 18 |
| Total comprehensive income attributable to non-controlling interests | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total comprehensive income attributable to UBS Preferred Funding Trust IV & V | 0 | 0 | 0 | 40 | 0 | (40) | 0 |
| **Total comprehensive income** | 12,257 | 1,244 | 866 | 72 | 1,102 | (9,832) | 5,709 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG (consolidated) financial statements in accordance with IFRS.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated balance sheet

| *CHF million*<br>As of 31 December 2015 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Assets** | | | | | | | |
| Cash and balances with central banks | 45,125 | 38,701 | 4,971 | | 2,509 | 0 | 91,306 |
| Due from banks | 29,225 | 3,224 | 12,776 | | 27,510 | (60,868) | 11,866 |
| Cash collateral on securities borrowed | 27,925 | 7,414 | 38,007 | | 6,506 | (54,268) | 25,584 |
| Reverse repurchase agreements | 61,253 | 16,258 | 21,039 | | 14,586 | (45,243) | 67,893 |
| Trading portfolio assets | 94,132 | 1,736 | 5,931 | 1,310 | 30,132 | (9,194) | 124,047 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *53,708* | *0* | *3,038* | | *2,264* | *(7,066)* | *51,943* |
| Positive replacement values | 175,943 | 6,033 | 21,463 | | 28,921 | (64,925) | 167,435 |
| Cash collateral receivables on derivative instruments | 19,026 | 1,056 | 5,964 | | 12,678 | (14,962) | 23,763 |
| Financial assets designated at fair value | 6,303 | 0 | 199 | | 2,628 | (3,322) | 5,808 |
| Loans | 89,052 | 186,872 | 47,054 | | 14,554 | (24,809) | 312,723 |
| Financial investments available-for-sale | 32,044 | 23,184 | 5,360 | | 5,996 | (4,042) | 62,543 |
| Investments in subsidiaries and associates | 45,689 | 14 | 1 | | 1 | (44,751) | 954 |
| Property, equipment and software | 6,499 | 15 | 972 | | 197 | 0 | 7,683 |
| Goodwill and intangible assets | 347 | 0 | 5,112 | | 1,139 | (30) | 6,568 |
| Deferred tax assets | 2,332 | 845 | 7,766 | | 1,890 | 0 | 12,833 |
| Other assets | 12,108 | 1,255 | 10,041 | | 3,111 | (4,266) | 22,249 |
| **Total assets** | 647,006 | 286,608 | 186,654 | 1,310 | 152,359 | (330,680) | 943,256 |
| **Liabilities** | | | | | | | |
| Due to banks | 31,725 | 18,948 | 26,320 | 4 | 5,782 | (70,944) | 11,836 |
| Cash collateral on securities lent | 34,094 | 2,493 | 23,437 | | 2,274 | (54,268) | 8,029 |
| Repurchase agreements | 20,658 | 6,505 | 11,490 | | 16,244 | (45,243) | 9,653 |
| Trading portfolio liabilities | 21,193 | 128 | 3,919 | | 11,317 | (7,420) | 29,137 |
| Negative replacement values | 170,718 | 5,655 | 21,109 | | 29,877 | (64,928) | 162,430 |
| Cash collateral payables on derivative instruments | 31,399 | 374 | 6,438 | | 15,033 | (14,962) | 38,282 |
| Financial liabilities designated at fair value | 61,630 | 0 | 288 | | 4,675 | (3,598) | 62,995 |
| Due to customers | 102,483 | 231,252 | 53,633 | | 34,002 | (18,848) | 402,522 |
| Debt issued | 70,792 | 8,274 | 3,126 | | 321 | (153) | 82,359 |
| Provisions | 1,680 | 179 | 1,969 | | 319 | 17 | 4,163 |
| Other liabilities | 40,255 | 1,806 | 16,683 | 1 | 20,179 | (4,318) | 74,606 |
| **Total liabilities** | 586,628 | 275,611 | 168,411 | 4 | 140,023 | (284,664) | 886,013 |
| **Equity attributable to UBS AG shareholders** | 58,423 | 10,997 | 18,243 | 4 | 12,296 | (44,714) | 55,248 |
| Equity attributable to preferred noteholders | 1,954 | 0 | 0 | 1,302 | 0 | (1,302) | 1,954 |
| Equity attributable to non-controlling interests | 0 | 0 | 0 | 0 | 41 | 0 | 41 |
| **Total equity** | 60,378 | 10,997 | 18,243 | 1,306 | 12,336 | (46,016) | 57,243 |
| **Total liabilities and equity** | 647,006 | 286,608 | 186,654 | 1,310 | 152,359 | (330,680) | 943,256 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG (consolidated) financial statements in accordance with IFRS.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of cash flows

| *CHF million*<br>For the year ended 31 December 2015 | UBS AG[1] | UBS Switzerland AG[1] | UBS Americas Inc.[1] | Other subsidiaries[1] | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Net cash flow from / (used in) operating activities** | (1,457) | 2,681 | (525) | 1,298 | 1,997 |
| **Cash flow from / (used in) investing activities** | | | | | |
| Purchase of subsidiaries, associates and intangible assets | (12) | 0 | (1) | 0 | (13) |
| Disposal of subsidiaries, associates and intangible assets[2] | 464 | 0 | 13 | 0 | 477 |
| Purchase of property, equipment and software | (1,423) | (5) | (299) | (114) | (1,841) |
| Disposal of property, equipment and software | 503 | 0 | 9 | 35 | 547 |
| Net (investment in) / divestment of financial investments available-for-sale | (15,144) | 3,815 | 230 | 3,494 | (7,605) |
| **Net cash flow from / (used in) investing activities** | (15,613) | 3,810 | (47) | 3,415 | (8,434) |
| **Cash flow from / (used in) financing activities** | | | | | |
| Net short-term debt issued / (repaid) | (5,603) | 24 | (826) | 0 | (6,404) |
| Distributions paid on UBS AG shares | (2,626) | 0 | 0 | 0 | (2,626) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 46,882 | 772 | 7 | 129 | 47,790 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (42,415) | (402) | (129) | (1,274) | (44,221) |
| Dividends paid and repayments of preferred notes | (108) | 0 | 0 | 0 | (108) |
| Net changes of non-controlling interests | 0 | 0 | 0 | (5) | (5) |
| Net activity related to group internal capital transactions and dividends[3] | (30,512) | 33,293 | (114) | (2,666) | 0 |
| **Net cash flow from / (used in) financing activities** | (34,382) | 33,687 | (1,062) | (3,817) | (5,573) |
| Effects of exchange rate differences on cash and cash equivalents | (1,309) | 67 | (241) | (259) | (1,742) |
| **Net increase / (decrease) in cash and cash equivalents** | (52,760) | 40,246 | (1,875) | 638 | (13,753) |
| Cash and cash equivalents at the beginning of the year | 100,662 | 0 | 8,960 | 7,093 | 116,715 |
| **Cash and cash equivalents at the end of the year** | 47,902 | 40,246 | 7,084 | 7,731 | 102,962 |
| **Cash and cash equivalents comprise:**[3] | | | | | |
| Cash and balances with central banks | 45,125 | 38,701 | 4,971 | 2,509 | 91,306 |
| Due from banks | 2,072 | 1,438 | 2,009 | 5,213 | 10,732 |
| Money market paper[4] | 704 | 107 | 104 | 9 | 924 |
| **Total** | 47,902 | 40,246 | 7,084 | 7,731 | 102,962[5] |

1 Cash flows generally represent a third-party view from a UBS AG (consolidated) perspective. As a consequence, the non-consolidated UBS Preferred Funding Trusts IV and V are not presented in this table. For the year ended 31 December 2015, these trusts had cash inflows of CHF 77 million from operating activities and an equivalent cash outflow for dividends paid to preferred note holders. 2 Includes dividends received from associates. 3 Includes transfer of cash and cash equivalents from UBS AG to UBS Switzerland AG of CHF 33,283 million. Refer to "Establishment of UBS Switzerland AG" in the "Legal entity financial and regulatory information" section of this report for more information on the business transfer from UBS AG to UBS Switzerland AG. 4 Money market paper is included in the balance sheet under Trading portfolio assets and Financial investments available-for-sale. 5 CHF 3,963 million of cash and cash equivalents were restricted.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated income statement

| *CHF million*<br>For the year ended 31 December 2014 | UBS AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Operating income** | | | | | |
| Interest income | 11,585 | 1,591 | 1,160 | (1,143) | 13,194 |
| Interest expense | (6,287) | (597) | (898) | 1,143 | (6,639) |
| Net interest income | 5,298 | 995 | 262 | 0 | 6,555 |
| Credit loss (expense) / recovery | (108) | 9 | 9 | 13 | (78) |
| Net interest income after credit loss expense | 5,190 | 1,003 | 270 | 13 | 6,477 |
| Net fee and commission income | 6,111 | 7,288 | 3,799 | (122) | 17,076 |
| Net trading income | 2,750 | 438 | 237 | 416 | 3,841 |
| Other income | 5,584 | 95 | (46) | (5,002) | 632 |
| **Total operating income** | 19,636 | 8,825 | 4,261 | (4,695) | 28,026 |
| **Operating expenses** | | | | | |
| Personnel expenses | 7,991 | 5,806 | 1,483 | 0 | 15,280 |
| General and administrative expenses | 5,621 | 2,415 | 1,341 | 0 | 9,377 |
| Depreciation and impairment of property, equipment and software | 595 | 139 | 83 | 0 | 817 |
| Amortization and impairment of intangible assets | 7 | 59 | 16 | 0 | 83 |
| **Total operating expenses** | 14,214 | 8,420 | 2,922 | 0 | 25,557 |
| **Operating profit / (loss) before tax** | 5,421 | 404 | 1,339 | (4,695) | 2,469 |
| Tax expense / (benefit) | 949 | (2,375) | 248 | (2) | (1,180) |
| Net profit / (loss) | 4,472 | 2,779 | 1,091 | (4,693) | 3,649 |
| Net profit / (loss) attributable to preferred noteholders | 142 | 0 | 0 | 0 | 142 |
| Net profit / (loss) attributable to non-controlling interests | 0 | 0 | 5 | 0 | 5 |
| **Net profit / (loss) attributable to UBS AG shareholders** | 4,330 | 2,779 | 1,086 | (4,693) | 3,502 |

1 Amounts presented for UBS AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone financial statements for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG (consolidated) financial statements in accordance with IFRS.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of comprehensive income

| *CHF million*<br>For the year ended 31 December 2014 | UBS AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Comprehensive income attributable to UBS AG shareholders** | | | | | |
| Net profit / (loss) | 4,330 | 2,779 | 1,086 | (4,693) | 3,502 |
| **Other comprehensive income** | | | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | | | |
| Foreign currency translation, net of tax | 325 | 928 | 1,500 | (920) | 1,834 |
| Financial investments available-for-sale, net of tax | 32 | 78 | 37 | (6) | 140 |
| Cash flow hedges, net of tax | 693 | 0 | 0 | 0 | 693 |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | 1,050 | 1,006 | 1,537 | (926) | 2,667 |
| **Other comprehensive income that will not be reclassified to the income statement** | | | | | |
| Defined benefit plans, net of tax | (999) | (167) | (56) | 14 | (1,208) |
| Property revaluation surplus, net of tax | 0 | 0 | 0 | 0 | 0 |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | (999) | (167) | (56) | 14 | (1,208) |
| **Total other comprehensive income** | 51 | 838 | 1,481 | (912) | 1,459 |
| **Total comprehensive income attributable to UBS AG shareholders** | 4,381 | 3,617 | 2,567 | (5,605) | 4,961 |
| Total comprehensive income attributable to preferred noteholders | 260 | 0 | 0 | 0 | 260 |
| Total comprehensive income attributable to non-controlling interests | 0 | 0 | 7 | 0 | 7 |
| **Total comprehensive income** | 4,641 | 3,617 | 2,575 | (5,605) | 5,229 |

1 Amounts presented for UBS AG (standalone) represents IFRS-standalone information. Refer to the UBS AG (standalone) audited financial statements for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated Financial Statements in accordance with IFRS.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated balance sheet

| *CHF million*<br>As of 31 December 2014 | UBS AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Assets** | | | | | |
| Cash and balances with central banks | 95,711 | 6,440 | 1,923 | 0 | 104,073 |
| Due from banks | 32,448 | 7,099 | 52,637 | (78,850) | 13,334 |
| Cash collateral on securities borrowed | 33,676 | 36,033 | 5,181 | (50,827) | 24,063 |
| Reverse repurchase agreements | 64,496 | 24,417 | 30,328 | (50,827) | 68,414 |
| Trading portfolio assets | 101,922 | 6,697 | 34,479 | (4,943) | 138,156 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *51,476* | *3,310* | *6,969* | *(5,737)* | *56,018* |
| Positive replacement values | 262,073 | 19,597 | 51,327 | (76,020) | 256,978 |
| Cash collateral receivables on derivative instruments | 25,501 | 5,503 | 14,487 | (14,512) | 30,979 |
| Financial assets designated at fair value | 4,691 | 481 | 2,882 | (3,562) | 4,493 |
| Loans | 299,032 | 43,566 | 16,553 | (43,168) | 315,984 |
| Financial investments available-for-sale | 42,580 | 5,403 | 9,175 | 0 | 57,159 |
| Investments in subsidiaries and associates | 27,163 | 2 | 1 | (26,239) | 927 |
| Property, equipment and software | 5,792 | 823 | 238 | 0 | 6,854 |
| Goodwill and intangible assets | 354 | 5,381 | 1,051 | 0 | 6,785 |
| Deferred tax assets | 4,290 | 6,479 | 349 | (57) | 11,060 |
| Other assets | 14,649 | 9,021 | 2,256 | (2,857) | 23,069 |
| **Total assets** | 1,014,379 | 176,942 | 222,867 | (351,860) | 1,062,327 |
| **Liabilities** | | | | | |
| Due to banks | 38,461 | 38,269 | 12,611 | (78,850) | 10,492 |
| Cash collateral on securities lent | 33,284 | 22,961 | 3,761 | (50,827) | 9,180 |
| Repurchase agreements | 22,087 | 12,548 | 28,010 | (50,827) | 11,818 |
| Trading portfolio liabilities | 18,936 | 4,856 | 8,234 | (4,068) | 27,958 |
| Negative replacement values | 258,680 | 19,448 | 51,993 | (76,020) | 254,101 |
| Cash collateral payables on derivative instruments | 32,106 | 5,926 | 18,852 | (14,512) | 42,372 |
| Financial liabilities designated at fair value | 73,857 | 130 | 5,598 | (4,288) | 75,297 |
| Due to customers | 362,564 | 48,236 | 43,474 | (43,294) | 410,979 |
| Debt issued | 86,894 | 157 | 4,312 | (156) | 91,207 |
| Provisions | 2,725 | 1,268 | 372 | 0 | 4,366 |
| Other liabilities | 33,699 | 17,615 | 21,985 | (2,907) | 70,392 |
| **Total liabilities** | 963,293 | 171,415 | 199,201 | (325,748) | 1,008,162 |
| **Equity attributable to UBS AG shareholders** | 49,073 | 5,527 | 23,621 | (26,113) | 52,108 |
| Equity attributable to preferred noteholders | 2,013 | 0 | 0 | 0 | 2,013 |
| Equity attributable to non-controlling interests | 0 | 0 | 45 | 0 | 45 |
| **Total equity** | 51,085 | 5,527 | 23,666 | (26,113) | 54,165 |
| **Total liabilities and equity** | 1,014,379 | 176,942 | 222,867 | (351,860) | 1,062,327 |

1 Amounts presented for UBS AG (standalone) represents IFRS-standalone information. Refer to the UBS AG (standalone) audited financial statements for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated Financial Statements in accordance with IFRS.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of cash flows

| *CHF million*<br>For the year ended 31 December 2014 | UBS AG[1] | UBS Americas Inc.[1] | Other subsidiaries[1] | UBS AG (consolidated) |
|---|---|---|---|---|
| **Net cash flow from / (used in) operating activities** | 7,438 | (1,814) | 1,608 | 7,231 |
| **Cash flow from / (used in) investing activities** | | | | |
| Purchase of subsidiaries, associates and intangible assets | (18) | 0 | 0 | (18) |
| Disposal of subsidiaries, associates and intangible assets[2] | 41 | 9 | 20 | 70 |
| Purchase of property, equipment and software | (1,521) | (300) | (94) | (1,915) |
| Disposal of property, equipment and software | 313 | 14 | 23 | 350 |
| Net (investment in) / divestment of financial investments available-for-sale | 7,774 | (568) | (3,098) | 4,108 |
| **Net cash flow from / (used in) investing activities** | 6,589 | (845) | (3,149) | 2,596 |
| **Cash flow from / (used in) financing activities** | | | | |
| Net short-term debt issued / (repaid) | (3,984) | 0 | 1,064 | (2,921) |
| Net movements in treasury shares and own equity derivative activity | (719) | 0 | 0 | (719) |
| Distributions paid on UBS AG shares | (938) | 0 | 0 | (938) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 40,272 | 24 | 686 | 40,982 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (32,083) | (494) | (1,632) | (34,210) |
| Dividends paid and repayments of preferred notes | (110) | 0 | 0 | (110) |
| Net changes of non-controlling interests | 0 | 0 | (3) | (3) |
| Net activity related to group internal capital transactions and dividends | (319) | 0 | 319 | 0 |
| **Net cash flow from / (used in) financing activities** | 2,118 | (470) | 434 | 2,081 |
| Effects of exchange rate differences on cash and cash equivalents | 7,394 | 840 | 289 | 8,522 |
| **Net increase / (decrease) in cash and cash equivalents** | 23,539 | (2,289) | (819) | 20,430 |
| Cash and cash equivalents at the beginning of the year | 77,123 | 11,249 | 7,911 | 96,284 |
| **Cash and cash equivalents at the end of the year** | 100,662 | 8,960 | 7,093 | 116,715 |
| **Cash and cash equivalents comprise:** | | | | |
| Cash and balances with central banks | 95,711 | 6,440 | 1,923 | 104,073 |
| Due from banks | 4,119 | 2,489 | 5,164 | 11,772 |
| Money market paper[3] | 832 | 31 | 6 | 869 |
| **Total** | 100,662 | 8,960 | 7,093 | 116,715[4] |

1 Cash flow generally represent a third-party view from a UBS AG (consolidated) perspective. 2 Includes dividends received from associates. 3 Money market paper is included in the balance sheet under Trading portfolio assets and Financial investments available-for-sale. 4 CHF 4,178 million of cash and cash equivalents were restricted.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated income statement

| *CHF million*<br>For the year ended 31 December 2013 | UBS AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Operating income** | | | | | |
| Interest income | 11,308 | 1,984 | 1,204 | (1,359) | 13,137 |
| Interest expense | (7,093) | (695) | (930) | 1,366 | (7,351) |
| Net interest income | 4,215 | 1,290 | 275 | 6 | 5,786 |
| Credit loss (expense) / recovery | (19) | (33) | (3) | 5 | (50) |
| Net interest income after credit loss expense | 4,196 | 1,257 | 271 | 11 | 5,736 |
| Net fee and commission income | 6,430 | 6,781 | 3,079 | (4) | 16,287 |
| Net trading income | 4,922 | 379 | 159 | (329) | 5,130 |
| Other income | 499 | 416 | (909) | 574 | 580 |
| **Total operating income** | 16,046 | 8,833 | 2,600 | 252 | 27,732 |
| **Operating expenses** | | | | | |
| Personnel expenses | 8,099 | 5,584 | 1,499 | 0 | 15,182 |
| General and administrative expenses | 3,959 | 3,364 | 1,058 | 0 | 8,380 |
| Depreciation and impairment of property, equipment and software | 575 | 133 | 107 | 0 | 816 |
| Amortization and impairment of intangible assets | 6 | 60 | 17 | 0 | 83 |
| **Total operating expenses** | 12,639 | 9,141 | 2,681 | 0 | 24,461 |
| **Operating profit / (loss) before tax** | 3,408 | (307) | (81) | 252 | 3,272 |
| Tax expense / (benefit) | 570 | (937) | 261 | (3) | (110) |
| Net profit / (loss) | 2,837 | 630 | (342) | 256 | 3,381 |
| Net profit / (loss) attributable to preferred noteholders | 204 | 0 | 0 | 0 | 204 |
| Net profit / (loss) attributable to non-controlling interests | 0 | 0 | 5 | 0 | 5 |
| **Net profit / (loss) attributable to UBS AG shareholders** | 2,634 | 630 | (347) | 256 | 3,172 |

1 Amounts presented for UBS AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone financial statements for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG (consolidated) financial statements in accordance with IFRS.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of comprehensive income

| *CHF million*<br>For the year ended 31 December 2013 | UBS AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Comprehensive income attributable to UBS AG shareholders** | | | | | |
| Net profit / (loss) | 2,634 | 630 | (347) | 256 | 3,172 |
| **Other comprehensive income** | | | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | | | |
| Foreign currency translation, net of tax | 392 | (348) | (311) | (204) | (471) |
| Financial investments available-for-sale, net of tax | 17 | (163) | (16) | 8 | (154) |
| Cash flow hedges, net of tax | (1,520) | 0 | 0 | 0 | (1,520) |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | (1,112) | (510) | (327) | (196) | (2,145) |
| **Other comprehensive income that will not be reclassified to the income statement** | | | | | |
| Defined benefit plans, net of tax | 824 | 110 | 6 | 0 | 939 |
| Property revaluation surplus, net of tax | (6) | 0 | 0 | 0 | (6) |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | 818 | 110 | 6 | 0 | 933 |
| **Total other comprehensive income** | (294) | (401) | (321) | (196) | (1,211) |
| **Total comprehensive income attributable to UBS AG shareholders** | 2,340 | 229 | (668) | 60 | 1,961 |
| Total comprehensive income attributable to preferred noteholders | 559 | 0 | 0 | 0 | 559 |
| Total comprehensive income attributable to non-controlling interests | 0 | 0 | 4 | 0 | 4 |
| **Total comprehensive income** | 2,899 | 229 | (664) | 60 | 2,524 |

1 Amounts presented for UBS AG (standalone) represents IFRS-standalone information. Refer to the UBS AG (standalone) audited financial statements for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated Financial Statements in accordance with IFRS.

## Note 39 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of cash flows

| *CHF million*<br>For the year ended 31 December 2013 | UBS AG[1] | UBS Americas Inc.[1] | Other subsidiaries[1] | UBS AG (consolidated) |
|---|---|---|---|---|
| **Net cash flow from / (used in) operating activities** | 58,756 | (8,311) | 3,929 | 54,374 |
| **Cash flow from / (used in) investing activities** | | | | |
| Purchase of subsidiaries, associates and intangible assets | (49) | 0 | 0 | (49) |
| Disposal of subsidiaries, associates and intangible assets[2] | 136 | 0 | 0 | 136 |
| Purchase of property, equipment and software | (1,032) | (160) | (44) | (1,236) |
| Disposal of property, equipment and software | 545 | 5 | 91 | 639 |
| Net (investment in) / divestment of financial investments available-for-sale | 751 | 6,076 | (861) | 5,966 |
| **Net cash flow from / (used in) investing activities** | 351 | 5,922 | (815) | 5,457 |
| **Cash flow from / (used in) financing activities** | | | | |
| Net short-term debt issued / (repaid) | (1,400) | 0 | (2,890) | (4,290) |
| Net movements in treasury shares and own equity derivative activity | (341) | 0 | 0 | (341) |
| Capital issuance | 1 | 0 | 0 | 1 |
| Distributions paid on UBS AG shares | (564) | 0 | 0 | (564) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 27,442 | 59 | 513 | 28,014 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (65,112) | (486) | (3,356) | (68,954) |
| Dividends paid and repayments of preferred notes | (1,415) | 0 | 0 | (1,415) |
| Net changes of non-controlling interests | 0 | 0 | (6) | (6) |
| Net activity related to group internal capital transactions and dividends | 12 | 23 | (35) | 0 |
| **Net cash flow from / (used in) financing activities** | (41,377) | (405) | (5,774) | (47,555) |
| Effects of exchange rate differences on cash and cash equivalents | (2,329) | (203) | (174) | (2,705) |
| **Net increase / (decrease) in cash and cash equivalents** | 15,400 | (2,998) | (2,834) | 9,569 |
| Cash and cash equivalents at the beginning of the year | 61,723 | 14,247 | 10,745 | 86,715 |
| **Cash and cash equivalents at the end of the year** | 77,123 | 11,249 | 7,911 | 96,284 |
| **Cash and cash equivalents comprise:** | | | | |
| Cash and balances with central banks | 69,808 | 8,893 | 2,178 | 80,879 |
| Due from banks | 3,091 | 2,327 | 5,699 | 11,117 |
| Money market paper[3] | 4,224 | 28 | 35 | 4,288 |
| **Total** | 77,123 | 11,249 | 7,911 | 96,284[4] |

1 Cash flow generally represent a third-party view from a UBS AG (consolidated) perspective. 2 Includes dividends received from associates. 3 Money market paper is included in the balance sheet under Trading portfolio assets and Financial investments available-for-sale. 4 CHF 4,534 million of cash and cash equivalents were restricted.

# UBS AG standalone financial statements

Audited |

## Income statement

| | | For the year ended | | % change from |
|---|---|---|---|---|
| *CHF million* | Note | **31.12.15** | 31.12.14 | 31.12.14 |
| Interest and discount income | | **6,204** | 8,653 | (28) |
| Interest and dividend income from trading portfolio | | **2,602** | 2,683 | (3) |
| Interest and dividend income from financial investments | | **199** | 210 | (5) |
| Interest expense | | **(5,917)** | (6,450) | (8) |
| Gross interest income | | **3,088** | 5,097 | (39) |
| Credit loss (expense) / recovery | | **(158)** | (129) | 22 |
| Net interest income | | **2,929** | 4,968 | (41) |
| Fee and commission income from securities and investment business | | **3,416** | 6,248 | (45) |
| Credit-related fees and commissions | | **285** | 492 | (42) |
| Other fee and commission income | | **110** | 598 | (82) |
| Fee and commission expense | | **(1,012)** | (1,147) | (12) |
| Net fee and commission income | | **2,799** | 6,192 | (55) |
| Net trading income | 3 | **3,725** | 3,407 | 9 |
| Net income from disposal of financial investments | | **150** | 147 | 2 |
| Dividend income from investments in subsidiaries and other participations | | **1,218** | 878 | 39 |
| Income from real estate holdings | | **565** | 26 | |
| Sundry ordinary income | 4 | **4,706** | 4,494 | 5 |
| Sundry ordinary expenses | 4 | **(831)** | (1,816) | (54) |
| Other income from ordinary activities | | **5,809** | 3,729 | 56 |
| Total operating income | | **15,263** | 18,297 | (17) |
| Personnel expenses | 5 | **6,438** | 6,787 | (5) |
| General and administrative expenses | 6 | **5,615** | 5,727 | (2) |
| Subtotal operating expenses | | **12,053** | 12,514 | (4) |
| Impairment of investments in subsidiaries and other participations | | **413** | 415 | 0 |
| Depreciation and impairment of property, equipment and software | | **674** | 596 | 13 |
| Amortization and impairment of goodwill and other intangible assets | | **22** | 20 | 10 |
| Changes in provisions and other allowances and losses | | **25** | 1,484 | (98) |
| Total operating expenses | | **13,187** | 15,029 | (12) |
| Operating profit | | **2,076** | 3,267 | (36) |
| Extraordinary income | 7 | **10,264** | 4,850 | 112 |
| Extraordinary expenses | 7 | **136** | 57 | 139 |
| Tax expense / (benefit) | 8 | **220** | 212 | 4 |
| **Net profit / (loss)** | | **11,984** | 7,849 | 53 |

## Balance sheet

| | | | | % change from |
|---|---|---|---|---|
| *CHF million* | Note | **31.12.15** | 31.12.14 | 31.12.14 |
| **Assets** | | | | |
| Cash and balances with central banks | | **45,125** | 95,711 | (53) |
| Due from banks | | **40,611** | 39,245 | 3 |
| Receivables from securities financing transactions | 9 | **90,479** | 100,158 | (10) |
| *of which: cash collateral on securities borrowed* | | ***27,925*** | *33,676* | *(17)* |
| *of which: reverse repurchase agreements* | | ***62,553*** | *66,481* | *(6)* |
| Due from customers | 10 | **97,401** | 156,344 | (38) |
| Mortgage loans | 10 | **4,679** | 155,406 | (97) |
| Trading portfolio assets | 12 | **94,210** | 107,549 | (12) |
| Positive replacement values | 13 | **20,987** | 42,385 | (50) |
| Financial investments | 14 | **27,528** | 42,384 | (35) |
| Accrued income and prepaid expenses | | **1,708** | 2,012 | (15) |
| Investments in subsidiaries and other participations | | **43,791** | 27,199 | 61 |
| Property, equipment and software | | **6,503** | 5,899 | 10 |
| Goodwill and other intangible assets | | **36** | 33 | 9 |
| Other assets | 15 | **3,986** | 3,568 | 12 |
| **Total assets** | | **477,045** | 777,893 | (39) |
| *of which: subordinated assets* | | ***5,752*** | *4,257* | *35* |
| *of which: subject to mandatory conversion and / or debt waiver* | | ***4,020*** | *0* | |
| **Liabilities** | | | | |
| Due to banks | | **36,669** | 43,787 | (16) |
| Payables from securities financing transactions | 9 | **55,457** | 56,460 | (2) |
| *of which: cash collateral on securities lent* | | ***34,094*** | *33,284* | *2* |
| *of which: repurchase agreements* | | ***21,363*** | *23,175* | *(8)* |
| Due to customers | | **144,842** | 397,194 | (64) |
| Trading portfolio liabilities | 12 | **21,179** | 18,965 | 12 |
| Negative replacement values | 13 | **24,669** | 42,911 | (43) |
| Financial liabilities designated at fair value | 12,18 | **58,104** | 49,803 | 17 |
| Medium-term notes | | **0** | 602 | (100) |
| Bonds issued and loans from central mortgage institutions | | **72,750** | 111,302 | (35) |
| Accrued expenses and deferred income | | **4,356** | 4,700 | (7) |
| Other liabilities | 15 | **5,505** | 6,962 | (21) |
| Provisions | 11 | **1,786** | 2,831 | (37) |
| **Total liabilities** | | **425,316** | 735,517 | (42) |
| **Equity** | | | | |
| Share capital | 19 | **386** | 384 | 0 |
| General reserve | | **33,669** | 28,453 | 18 |
| *of which: statutory capital reserve* | | ***38,149*** | *40,782* | *(6)* |
| *of which: capital contribution reserve*[1] | | ***38,149*** | *40,782* | *(6)* |
| *of which: statutory earnings reserve* | | ***(4,480)*** | *(12,329)* | *(64)* |
| Voluntary earnings reserve | | **5,689** | 5,689 | 0 |
| Net profit / (loss) for the period | | **11,984** | 7,849 | 53 |
| **Total equity** | | **51,728** | 42,376 | 22 |
| **Total liabilities and equity** | | **477,045** | 777,893 | (39) |
| *of which: subordinated liabilities* | | ***16,139*** | *18,538* | *(13)* |
| *of which: subject to mandatory conversion and / or debt waiver* | | ***11,858*** | *10,687* | *11* |

Legal entity financial and regulatory information

## Balance sheet (continued)

| CHF million | 31.12.15 | 31.12.14 | % change from 31.12.14 |
|---|---|---|---|
| **Off-balance sheet items** | | | |
| **Contingent liabilities, gross** | 27,787 | 41,872 | (34) |
| Sub-participations | (1,866) | (2,792) | (33) |
| **Contingent liabilities, net** | 25,920 | 39,080 | (34) |
| *of which: guarantees to third parties related to subsidiaries* | *19,392* | *23,140* | *(16)* |
| *of which: credit guarantees and similar instruments* | *4,224* | *7,842* | *(46)* |
| *of which: performance guarantees and similar instruments* | *26* | *2,555* | *(99)* |
| *of which: documentary credits* | *2,278* | *5,543* | *(59)* |
| **Irrevocable commitments, gross** | 50,901 | 54,296 | (6) |
| Sub-participations | (1,559) | (1,256) | 24 |
| **Irrevocable commitments, net** | 49,342 | 53,040 | (7) |
| *of which: loan commitments* | *49,342* | *52,172* | *(5)* |
| *of which: payment commitment related to deposit insurance* | *0* | *868* | *(100)* |
| **Forward starting transactions**[2] | 4,195 | 9,932 | (58) |
| *of which: reverse repurchase agreements* | *1,626* | *6,048* | *(73)* |
| *of which: securities borrowing agreements* | *6* | *125* | *(95)* |
| *of which: repurchase agreements* | *2,561* | *3,758* | *(32)* |
| *of which: securities lending agreements* | *2* | *0* | |
| **Liabilities for calls on shares and other equity instruments** | 7 | 45 | (84) |

1 Effective 1 January 2011, the Swiss withholding tax law provides that payments out of the capital contribution reserve are not subject to withholding tax. This law has led to interpretational differences between the Swiss Federal Tax Authorities and companies about the qualifying amounts of capital contribution reserve and the disclosure in the financial statements. In view of this, the Swiss Federal Tax Authorities have confirmed that UBS would be able to repay to shareholders CHF 27.4 billion of disclosed capital contribution reserve (status as of 1 January 2011) without being subject to the withholding tax deduction that applies to dividends paid out of retained earnings. This amount decreased to CHF 23.0 billion as of 31 December 2015 subsequent to distributions in 2012, 2013, 2014 and 2015. The decision about the remaining amount has been deferred to a future point in time. 2 Cash to be paid in the future by either UBS AG or the counterparty.

## Off-balance sheet items

Off-balance sheet items include indemnities and guarantees issued by UBS AG for the benefit of subsidiaries and creditors of subsidiaries.

Where the indemnity amount issued by UBS AG is not specifically defined, the indemnity relates to the solvency or minimum capitalization of a subsidiary, and therefore no amount is included in the table above.

In addition, UBS AG is jointly and severally liable for the value added tax (VAT) liability of Swiss subsidiaries that belong to its VAT group. This contingent liability is not included in the table above.

### Guarantee to UBS Limited

UBS AG has issued a guarantee for the benefit of each counterparty of UBS Limited. Under this guarantee, UBS AG irrevocably and unconditionally guarantees each and every obligation that UBS Limited enters into. UBS AG promises to pay to that counterparty on demand any unpaid balance of such liabilities under the terms of the guarantee.

### Joint and several liability UBS Switzerland AG

In June 2015, the Personal & Corporate Banking and Wealth Management businesses booked in Switzerland were transferred from UBS AG to UBS Switzerland AG through an asset transfer in accordance with the Swiss Merger Act (refer to "Establishment of UBS Switzerland AG" in this section for more information). Under the Swiss Merger Act, UBS AG assumed joint liability for obligations existing on the asset transfer date, 14 June 2015, which were transferred to UBS Switzerland AG. UBS AG has no liability for new obligations incurred by UBS Switzerland AG after the asset transfer date.

As of the asset transfer date, UBS AG assumed joint liability for approximately CHF 260 billion of obligations of UBS Switzerland AG, excluding the collateralized portion of secured contractual obligations. The joint liability amount declines as obligations mature, terminate or are novated following the asset transfer date. As of 31 December 2015, the joint liability amounted to approximately CHF 55 billion.

As of 31 December 2015, the probability of an outflow under this joint and several liability was assessed to be remote and as a result, the table above does not include any exposures arising under this joint and several liability.

## Statement of changes in equity

| *CHF million* | Share capital | Statutory capital reserve | Statutory earnings reserve | Voluntary earnings reserve | Net profit / (loss) for the period | Total equity |
|---|---|---|---|---|---|---|
| **Balance as of 1 January 2015** | **384** | **40,782** | **(12,329)** | **5,689** | **7,849** | **42,376** |
| Capital increase | 1 | | | | | 1 |
| Dividends and other distributions | | (2,633) | | | | (2,633) |
| Net profit / (loss) appropriation | | | 7,849 | | (7,849) | 0 |
| Net profit / (loss) for the period | | | | | 11,984 | 11,984 |
| **Balance as of 31 December 2015** | **386** | **38,149** | **(4,480)** | **5,689** | **11,984** | **51,728** |

## Statement of appropriation of retained earnings and proposed dividend distribution

The Board of Directors proposes that the Annual General Meeting of Shareholders (AGM) on 4 May 2016 approves the following appropriation of retained earnings and dividend distribution. Provided that the proposed dividend distribution is approved, the payment of CHF 3,434 million would be made on 12 May 2016 to UBS Group AG. Dividend payments out of retained earnings are generally subject to Swiss withholding tax. However, as certain conditions are met, the withholding tax related to the dividend distribution from UBS AG to UBS Group AG will be settled with the Swiss Federal Tax Administration through a so-called dividend notification procedure. Under this procedure, effectively no tax will be withheld.

## Proposed appropriation of retained earnings

| | For the year ended |
|---|---|
| *CHF million* | **31.12.15** |
| Net profit for the period | **11,984** |
| Retained earnings carried forward | **0** |
| **Total retained earnings available for appropriation** | **11,984** |
| **Proposed appropriation of retained earnings** | |
| Appropriation to general reserve: statutory earnings reserve | **(4,480)** |
| Appropriation to voluntary earnings reserve | **(4,070)** |
| Dividend distribution | **(3,434)** |
| **Retained earnings carried forward** | **0** |

# Notes to the UBS AG standalone financial statements

## Note 1 Name, legal form and registered office

UBS AG is incorporated and domiciled in Switzerland. Its registered offices are at Bahnhofstrasse 45, CH-8001 Zurich and Aeschenvorstadt 1, CH-4051 Basel, Switzerland. UBS AG operates under the Swiss Code of Obligations and Swiss Federal Banking Law as a stock corporation (Aktiengesellschaft), a corporation that has issued shares of common stock to investors. UBS AG is 100% owned by UBS Group AG, the ultimate parent of the UBS Group.

## Note 2 Accounting policies

### a) Significant accounting policies

UBS AG standalone financial statements are prepared in accordance with Swiss GAAP (FINMA Circular 2015/1 and the Banking Ordinance) in the form of reliable assessment statutory single-entity financial statements. The accounting policies are principally the same as for the consolidated financial statements outlined in Note 1 to the consolidated financial statements. Major differences between the Swiss GAAP requirements and International Financial Reporting Standards are described in Note 38 to the consolidated financial statements. The significant accounting policies applied for the standalone financial statements of UBS AG are discussed below.

#### Risk management

UBS AG (standalone) is fully integrated into the Group-wide risk management process described in the audited part of the "Risk, treasury and capital management" section of this report.

Further information on the use of derivative instruments and hedge accounting are outlined in Notes 1 and 14 to the consolidated financial statements.

#### Compensation policy

The compensation structure and processes of UBS AG conform to the compensation principles and framework of UBS Group AG. For detailed information refer to the Compensation Report of UBS Group AG.

#### Foreign currency translation

Transactions denominated in foreign currency are translated into Swiss francs at the spot exchange rate on the date of the transaction. At the balance sheet date, all monetary assets and liabilities, as well as equity instruments recorded in *Trading portfolio assets* and *Financial investments* denominated in foreign currency, are translated into Swiss francs using the closing exchange rate. Non-monetary items measured at historic cost are translated at the exchange rate on the date of the transaction. Assets and liabilities of foreign branches are translated into Swiss francs at the closing exchange rate. Income and expense items of foreign branches are translated at weighted average exchange rates for the period. All currency translation effects are recognized in the income statement.

The main currency translation rates used by UBS AG can be found in Note 36 to the consolidated financial statements.

#### Structured products

Structured products consist of a host contract and one or more embedded derivatives that do not relate to UBS AG's own equity. The embedded derivatives are assessed for bifurcation for measurement purposes and presented in the same balance sheet line as the host contract. By applying the fair value option, certain structured debt instruments are measured at fair value as a whole, and recognized in *Financial liabilities designated at fair value.* Structured debt instruments comprise structured debt instruments issued and structured over-the-counter debt instruments. The fair value option for structured debt instruments can be applied only if the following criteria are cumulatively met:

- the structured debt instrument is measured on a fair value basis and is subject to risk management that is equivalent to risk management for trading activities;
- the application of the fair value option eliminates or significantly reduces an accounting mismatch that would otherwise arise; and
- changes in fair value attributable to changes in unrealized own credit are not recognized in the income statement and the balance sheet.

Fair value changes related to *Financial liabilities designated at fair value,* excluding changes in unrealized own credit, are recognized in *Net trading income.* Interest expense on *Financial liabilities designated at fair value* is recognized in *Interest expense.*

**➔ Refer to Note 18 for more information**

**Note 2 Accounting policies (continued)**

### Investments in subsidiaries and other participations

*Investments in subsidiaries and other participations* are equity interests that are held to carry on the business of UBS AG or for other strategic purposes. They include all subsidiaries directly held by UBS AG through which UBS AG conducts its business on a global basis. The investments are measured individually and carried at cost less impairment. The carrying value is tested for impairment when indications for a decrease in value exist, which include incurrence of significant operating losses or a severe depreciation of the currency in which the investment is denominated. If an investment in a subsidiary is impaired, its value is generally written down to the net asset value. Subsequent recoveries in value are recognized up to the original cost value based on either the increased net asset value or a value above the net asset value if, in the opinion of management, forecasts of future profitability provide sufficient evidence that a carrying value above net asset value is supported. Management may exercise its discretion as to what extent and in which period a recovery in value is recognized.

Impairments of investments are presented *as Impairment of investments in subsidiaries and other participations.* Reversals of impairments are presented as *Extraordinary income* in the income statement. Impairments and partial or full reversals of impairments for a subsidiary during the same annual period are determined on a net basis.

### Deferred taxes

Deferred tax assets are not recognized in UBS AG's standalone financial statements. However, deferred tax liabilities may be recognized for taxable temporary differences. Changes in the deferred tax liability balance are recognized in the income statement.

### Services provided to and received from subsidiaries, affiliated entities and UBS Group AG

Services provided to and received from UBS Group AG or any of its subsidiaries are settled in cash as hard cost transfers or hard revenue transfers paid or received.

When the nature of the underlying transaction between UBS AG and UBS Group AG or any of its subsidiaries contains a single, clearly identifiable service element, related income and expenses are presented in the respective income statement line item, e.g., *Fee and commission income from securities and investment business, Other fee and commission income, Fee and commission expense, Net trading income* or *General and administrative expenses.* To the extent the nature of the underlying transaction contains various service elements and is not clearly attributable to a particular Income statement line item, related income and expenses are presented in *Sundry ordinary income* and *Sundry ordinary expenses.*

➔ **Refer to Notes 4 and 6 for more information**

### Pension and other post-employment benefit plans

Swiss GAAP permits the use of IFRS or Swiss accounting standards for pension and other post-employment benefit plans, with the election made on a plan-by-plan basis.

UBS AG has elected to apply Swiss GAAP (FER 16) for the Swiss pension plan in its standalone financial statements. The requirements of Swiss GAAP are better aligned with the specific nature of Swiss pension plans, which are hybrid in that they combine elements of defined contribution and defined benefit plans, but are treated as defined benefit plans under IFRS. Swiss GAAP requires that the employer contributions to the pension fund are recognized as *Personnel expenses* in the income statement. The employer contributions to the Swiss pension fund are determined as a percentage of contributory compensation. Further, Swiss GAAP requires an assessment as to whether, based on the financial statements of the pension fund prepared in accordance with Swiss accounting standards (FER 26), an economic benefit to, or obligation of, UBS AG arises from the pension fund and is recognized in the balance sheet when conditions are met. Conditions for recording a pension asset or liability would be met if, for example, an employer contribution reserve is available or UBS AG is required to contribute to the reduction of a pension deficit (on a FER 26 basis).

Key differences between Swiss GAAP and IFRS include the treatment of dynamic elements, such as future salary increases and future interest credits on retirement savings, which are not considered under the static method used in accordance with Swiss GAAP. Also, the discount rate used to determine the defined benefit obligation in accordance with IFRS is based on the yield of high-quality corporate bonds of the market in the respective pension plan country. The discount rate used in accordance with Swiss GAAP, i.e., the technical interest rate, is determined by the Pension Foundation Board based on the expected returns of the Board's investment strategy.

➔ **Refer to Note 20 for more information**

UBS AG has elected to apply IFRS (IAS 19) for its non-Swiss defined benefit plans. However, remeasurements of the defined benefit obligation and the plan assets are recognized in the income statement rather than directly in equity. For corresponding disclosures in accordance with IAS 19 requirements, refer to Note 28 to the consolidated financial statements.

**Note 2 Accounting policies (continued)**

### Subordinated assets and liabilities

Subordinated assets are comprised of claims that arise from an irrevocable written declaration where in the event of liquidation, bankruptcy or restructuring of the debtor, rank after the claims of all other creditors and may not be offset against amounts payable to the debtor nor secured by its assets. Subordinated liabilities are comprised of corresponding obligations.

Subordinated assets and liabilities that contain a point-of-non-viability clause in accordance with Swiss capital requirements per articles 29 and 30 of the Capital Adequacy Ordinance are disclosed as being *subject to mandatory conversion and/or debt waiver* and provide for the claim or the obligation to be written off or converted into equity in the event that the issuing bank reaches a point of non-viability.

### Dispensations in the standalone financial statements

As UBS AG prepares consolidated financial statements in accordance with IFRS, UBS AG is exempt from various disclosures in the standalone financial statements. The dispensations include the management report, the statement of cash flows and various note disclosures, as well as the publication of interim financial statements.

## b) Changes in accounting policies, comparability and other adjustments

### Comparative period figures

Comparative figures presented for 31 December 2014 include the Personal & Corporate Banking and Wealth Management businesses booked in Switzerland, which were transferred from UBS AG to UBS Switzerland AG effective 1 April 2015.

**➔ Refer to "Establishment of UBS Switzerland AG" within this section of the report for more information**

Furthermore, as explained in further detail below, UBS AG adopted the revisions to Swiss GAAP retrospectively from 1 January 2015. The comparative 2014 income statement and balance sheet were only amended for changes in presentation. Also, no comparatives are provided for Note disclosures that are newly required under revised Swiss GAAP, as UBS AG made use of the available transition relief.

Lastly, UBS AG re-assessed the presentation of hard cost and revenue transfers and 2015 figures are presented on a revised basis, while comparative 2014 amounts were not amended. Further details are provided on the next page.

### Amendment of accounting standards applicable to banks and securities dealers

The Swiss Law on Accounting and Financial Reporting (32nd title of the Swiss Code of Obligations) was revised in 2011 and became effective on 1 January 2013 with a transition period of two years (i.e., is effective for annual periods beginning on or after 1 January 2015). Following this change, the accounting standards applicable to banks and securities dealers were amended accordingly. On 30 April 2014, the Swiss Federal Council passed the amended Banking Ordinance, and on 3 June 2014 the new FINMA Circular 2015/1 Accounting – banks was published. Revised Swiss GAAP, in accordance with the amended Banking Ordinance and the new FINMA Circular, is effective for annual periods beginning on or after 1 January 2015. UBS AG made use of transition relief for interim reporting from the first to third quarter of 2015 and adopted revised Swiss GAAP as of 1 November 2015 for the 2015 annual financial statements, retrospectively from 1 January 2015.

The main transition effects on the UBS AG standalone financial statements from this adoption are summarized below.

#### Recognition and measurement changes

The scope of the fair value option was increased to include structured debt instruments with embedded derivatives that are clearly and closely related to the host debt contracts. As a result, structured debt instruments with a fair value in the amount of CHF 19.3 billion were reclassified to *Financial liabilities designated at fair value* from *Due to customers* and *Bonds issued and loans from central mortgage institutions.* The transition impact from measuring those structured debt instruments at fair value was CHF 190 million, which was recognized as a decrease to *Net trading income* in 2015.

Own bonds held in the amount of CHF 4.9 billion previously recognized within *Trading portfolio assets* were offset against bonds issued recognized within *Financial liabilities designated at fair value* and *Bonds issued and loans from central mortgage institutions.* An accumulated measurement difference between own bonds held and own bonds issued in the amount of CHF 25 million was recognized as a decrease to *Net trading income* in 2015.

A reduction of the useful life of certain intangible assets from 20 to 10 years had an immaterial impact on the income statement and balance sheet.

**Note 2 Accounting policies (continued)**

**Revision to Swiss GAAP: presentational balance sheet changes**

| | Former Swiss GAAP | Revised Swiss GAAP | Absolute change |
|---|---|---|---|
| *CHF million* | 31.12.14 | **31.12.14** | 31.12.14 |
| Total assets | 777,893 | **777,893** | 0 |
| *of which: Money market paper* | *10,966* | | *(10,966)* |
| *of which: Trading portfolio assets* | *101,820* | ***107,549*** | *5,729* |
| *of which: Financial investments* | *37,154* | ***42,384*** | *5,230* |
| *of which: Due from banks* | *112,649* | ***39,245*** | *(73,404)* |
| *of which: Due from customers* | *183,091* | ***156,344*** | *(26,747)* |
| *of which: Receivables from securities financing transactions* | | ***100,158*** | *100,158* |
| Total liabilities | 735,517 | **735,517** | 0 |
| *of which: Money market paper issued* | *34,235* | | *(34,235)* |
| *of which: Bonds issued and loans from central mortgage institutions* | *77,067* | ***111,302*** | *34,235* |
| *of which: Due to banks* | *94,952* | ***43,787*** | *(51,165)* |
| *of which: Due to customers on savings and deposit accounts* | *112,709* | | *(112,709)* |
| *of which: Other amounts due to customers* | *289,779* | | *(289,779)* |
| *of which: Due to customers* | | ***397,194*** | *397,194* |
| *of which: Payables from securities financing transactions* | | ***56,460*** | *56,460* |

### Presentation and disclosure changes

The presentation order of certain items in the income statement was amended and different sub-totals were added to the income statement. Furthermore, *Credit loss (expense)/recovery* is now included within *Net interest income,* whereas previously this was included within *Allowances, provisions and losses.* The comparative income statement for 2014 was amended accordingly and as a result, *Net interest income* and *Total operating income* decreased by CHF 129 million with a corresponding increase in *Changes in provisions and other allowances and losses,* reflecting the aforementioned change in presentation of *Credit loss (expense)/recovery.* There was no impact on net profit or equity.

The structure of the balance sheet was also amended. Money market paper held and money market paper issued are no longer shown as separate balance sheet line items but are instead reported within *Trading portfolio assets, Financial investments, Due from customers* and *Bonds issued and loans from central mortgage institutions.* Conversely, *Receivables from securities financing transactions* and *Payables from securities financing transactions* are now shown separately, whereas previously these receivables and payables were reported within *Due from banks, Due from customers, Due to banks* and *Due to customers.* Lastly, the previously disclosed balance sheet lines *Due to customers on savings and deposit accounts* and *Other amounts due to customers* were combined into *Due to customers.* The table above provides the quantitative effect on the balance sheet as of 31 December 2014 from these presentational changes.

In addition to the aforementioned changes to the income statement and balance sheet, certain Notes have been added to the financial statements.

### Presentation of internal hard transfers

During 2015, UBS re-assessed the presentation of hard cost and revenue transfers between UBS AG and its subsidiaries, affiliated entities and UBS Group AG, and aligned the presentation of the related income and expenses with the underlying nature of the transaction for the year ended 31 December 2015, without adjusting comparative period amounts. When the nature of the underlying transaction contains a single, clearly identifiable service element, related income and expenses are newly presented in the respective income statement line item. Only to the extent that the nature of the underlying transaction contains various service elements and is not clearly attributable to a particular Income statement line item, related income and expenses continue to be presented in *Sundry ordinary income* and *Sundry ordinary expenses.*

## Note 3a Net trading income by business

| | For the year ended | | % change from |
|---|---|---|---|
| CHF million | 31.12.15 | 31.12.14 | 31.12.14 |
| Investment Bank Corporate Client Solutions | 318 | 56 | 467 |
| Investment Bank Investor Client Services | 3,203 | 3,039 | 5 |
| Other business divisions and Corporate Center | 205 | 313 | (35) |
| **Total net trading income** | 3,725 | 3,407 | 9 |

## Note 3b Net trading income by underlying risk category

| | For the year ended |
|---|---|
| CHF million | 31.12.15 |
| Interest rate instruments (including funds) | (346) |
| Foreign exchange instruments | 1,912 |
| Equity instruments (including funds) | 1,822 |
| Credit instruments | 290 |
| Precious metals / commodities | 47 |
| **Total net trading income** | 3,725 |
| *of which: net gains / (losses) from financial liabilities designated at fair value*[1] | *3,139* |

1 Excludes fair value changes of hedges related to financial liabilities designated at fair value and foreign currency effects arising from translating foreign currency transactions into the respective functional currency, both of which are reported within net trading income.

## Note 4 Sundry ordinary income and expenses

| | For the year ended | | % change from |
|---|---|---|---|
| CHF million | 31.12.15 | 31.12.14 | 31.12.14 |
| Gains from sale of loans and receivables | 23 | 47 | (52) |
| Income from hard cost transfers[1,2] | 4,580 | 2,498 | 83 |
| Income from hard revenue transfers[2] | 18 | 1,853 | (99) |
| Other | 86 | 96 | (11) |
| **Total sundry ordinary income** | 4,706 | 4,494 | 5 |
| Losses from early redemption of debt | (275) | (4) | |
| Expenses from hard revenue transfers[2] | (497) | (1,772) | (72) |
| Other | (59) | (40) | 47 |
| **Total sundry ordinary expenses** | (831) | (1,816) | (54) |

1 Represents income received from UBS Group AG and subsidiaries in the UBS Group for services provided by UBS AG. Services provided by UBS AG primarily related to Corporate Center functions. 2 Refer to Note 2b for more information.

## Note 5 Personnel expenses

| | For the year ended |
|---|---|
| *CHF million* | **31.12.15** |
| Salaries | 3,459 |
| Variable compensation – performance awards | 1,707 |
| Variable compensation – other | 191 |
| Contractors | 303 |
| Social security | 408 |
| Pension and other post-employment benefit plans | 122 |
| *of which: value adjustments for economic benefits or obligations from pension funds*[1] | *(318)* |
| Wealth Management Americas: Financial advisor compensation | 8 |
| Other personnel expenses | 240 |
| **Total personnel expenses** | **6,438** |

1 Reflects the remeasurement of the defined benefit obligation and return on plan assets for the non-Swiss defined benefit plans where UBS AG applies IAS 19.

## Note 6 General and administrative expenses

| | For the year ended |
|---|---|
| *CHF million* | **31.12.15** |
| Occupancy | 588 |
| Rent and maintenance of IT equipment | 383 |
| Communication and market data services | 322 |
| Administration[1] | 1,413 |
| *of which: hard cost transfers paid* | *955* |
| Marketing and public relations | 283 |
| Travel and entertainment | 226 |
| Fees to audit firms | 53 |
| *of which: financial and regulatory audits* | *44* |
| *of which: audit related services* | *6* |
| *of which: tax and other services* | *3* |
| Other professional fees | 776 |
| Outsourcing of IT and other services | 1,571 |
| **Total general and administrative expenses** | **5,615** |

1 Includes hard cost transfers paid to UBS Group AG and subsidiaries in the UBS Group for services provided to UBS AG.

## Note 7 Extraordinary income and expenses

| | For the year ended | | % change from |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.14 |
| Gains from disposals of subsidiaries and other participations | **334** | 96 | 249 |
| Reversal of impairments and provisions of subsidiaries and other participations | **9,551** | 4,646 | 106 |
| Prior period related income | **0** | 63 | (100) |
| Other extraordinary income | **379** | 45 | 735 |
| **Total extraordinary income** | **10,264** | 4,850 | 112 |
| Losses from disposals of subsidiaries and other participations | **1** | 0 | |
| Prior period related expenses | **0** | 55 | (100) |
| Other extraordinary expenses | **134** | 2 | |
| **Total extraordinary expenses** | **136** | 57 | 139 |

In the third quarter of 2015, UBS AG contributed its participations in UBS Americas Inc., UBS Securities LLC and three Asset Management subsidiaries into UBS Americas Holding LLC, a direct subsidiary of UBS AG. This contribution was made at a fair value of CHF 21.2 billion, resulting in a gain of CHF 10.0 billion that was recognized in the income statement, largely as extraordinary income, and which increased UBS AG's investment value in UBS Americas Holding LLC.

## Note 8 Taxes

| | For the year ended |
|---|---|
| *CHF million* | **31.12.15** |
| Income tax expense / (benefit) | **186** |
| *of which: current* | ***185*** |
| *of which: deferred* | ***1*** |
| Capital tax | **34** |
| **Total tax expense / (benefit)** | **220** |

For the year ended 31 December 2015, the average tax rate, defined as income tax expense divided by the sum of operating profit and extraordinary income minus extraordinary expenses and capital tax, was 1.5%. Income tax expense for the year ended 31 December 2015 includes a benefit of CHF 3,188 million from the utilization of tax losses carried forward in UBS AG's main tax jurisdictions.

## Note 9 Securities financing transactions

| *CHF billion* | 31.12.15 |
|---|---|
| **On-balance sheet** | |
| Receivables from securities financing transactions, gross | 133.3 |
| Netting of securities financing transactions | (42.8) |
| Receivables from securities financing transactions, net | 90.5 |
| Payables from securities financing transactions, gross | 98.2 |
| Netting of securities financing transactions | (42.8) |
| Payables from securities financing transactions, net | 55.5 |
| Assets pledged as collateral in connection with securities financing transactions | 54.0 |
| *of which: trading portfolio assets* | *52.8* |
| *of which: assets which may be sold or repledged by counterparties* | *51.9* |
| *of which: financial investments* | *1.2* |
| *of which: assets which may be sold or repledged by counterparties* | *1.2* |
| **Off-balance sheet** | |
| Fair value of assets received as collateral in connection with securities financing transactions | 249.9 |
| *of which: repledged* | *183.0* |
| *of which: sold in connection with short sale transactions* | *21.2* |

## Note 10a Collateral for loans and off-balance sheet transactions

| | 31.12.15 | | | | |
|---|---|---|---|---|---|
| | Secured | | | Unsecured | Total |
| | Secured by collateral | | Secured by other credit enhancements[2] | | |
| *CHF million* | Real estate | Other collateral[1] | | | |
| **On-balance sheet** | | | | | |
| Due from customers, gross | 4 | 64,223 | 1,457 | 31,947[3] | 97,630 |
| Mortgage loans, gross | 4,681 | 0 | 0 | 0 | 4,681 |
| *of which: residential mortgages* | *4,605* | | | | *4,605* |
| *of which: office and business premises mortgages* | *4* | | | | *4* |
| *of which: industrial premises mortgages* | *44* | | | | *44* |
| *of which: other mortgages* | *28* | | | | *28* |
| **Total on-balance sheet, gross** | 4,684 | 64,223 | 1,457 | 31,947 | 102,311 |
| Allowances | (2) | (152) | 0 | (77) | (231) |
| **Total on-balance sheet, net** | 4,683 | 64,071 | 1,457 | 31,870 | 102,080 |
| **Off-balance sheet** | | | | | |
| Contingent liabilities, gross | 0 | 2,121 | 2,093 | 23,573 | 27,787 |
| Irrevocable commitments, gross | 456 | 9,673 | 7,515 | 33,256 | 50,901 |
| Forward starting reverse repurchase and securities borrowing transactions | 0 | 1,632 | 0 | 0 | 1,632 |
| Liabilities for calls on shares and other equities | 0 | 0 | 0 | 7 | 7 |
| **Total off-balance sheet** | 456 | 13,425 | 9,608 | 56,837 | 80,327 |

1 Mainly comprised of cash and securities. 2 Includes credit default swaps and guarantees. 3 Primarily comprised of amounts due from subsidiaries.

## Note 10b Impaired financial instruments

| | 31.12.15 | | | |
|---|---|---|---|---|
| *CHF million* | **Gross impaired financial instruments** | **Allowances and provisions** | **Estimated liquidation proceeds of collateral** | **Net impaired financial instruments** |
| Amounts due from customers | **474** | **229** | **0** | **245** |
| Mortgage loans | **5** | **2** | **4** | **0** |
| Guarantees and loan commitments | **17** | **3** | **0** | **14** |
| **Total impaired financial instruments** | **496** | **234** | **4** | **259** |

## Note 11a Allowances

| *CHF million* | Balance as of 31.12.14 | Increase recognized in the income statement | Release recognized in the income statement | Write-offs | Recoveries and past due interest | Reclassifications / other[2] | Foreign currency translation | Transfer to UBS Switzerland AG | **Balance as of 31.12.15** |
|---|---|---|---|---|---|---|---|---|---|
| Specific allowances for amounts due from customers and mortgage loans | 655 | 198 | (39) | (18) | 21 | 44 | (18) | (611) | **231** |
| Specific allowances for due from banks | 12 | 0 | 0 | 0 | 0 | 0 | 0 | (12) | **0** |
| Collective allowances[1] | 5 | 0 | (1) | 0 | 0 | 0 | 0 | (5) | **0** |
| Other allowances | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| **Total allowances** | 673 | 198 | (40) | (18) | 21 | 44 | (18) | (628) | **231** |

1 Mainly relates to amounts due from customers. 2 Includes CHF 47 million related to a specific allowance for amounts due from customers, which was recognized in a prior period.

## Note 11b Provisions

| *CHF million* | Balance as of 31.12.14 | Increase recognized in the income statement | Release recognized in the income statement | Provisions used in conformity with designated purpose | Recoveries | Reclassifications | Foreign currency translation | Transfer to UBS Switzerland AG | **Balance as of 31.12.15** |
|---|---|---|---|---|---|---|---|---|---|
| Default risk related to loan commitments and guarantees | 23 | 3 | (3) | 0 | 0 | 3 | 0 | (23) | **3** |
| Operational risks | 28 | 8 | (5) | (3) | 0 | 0 | (2) | (7) | **20** |
| Litigation, regulatory and similar matters[1] | 1,881 | 95 | (73) | (720) | 0 | 0 | (17) | (103) | **1,063** |
| Restructuring | 329 | 158 | (40) | (160) | 7 | 0 | 3 | (9) | **288** |
| Real estate[2] | 83 | 26 | (1) | (16) | 3 | 0 | (1) | 0 | **94** |
| Employee benefits | 208 | 4 | (15) | 0 | 2 | 0 | (7) | (27) | **165** |
| Parental support to subsidiaries | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **96** |
| Deferred taxes | 10 | 1 | 0 | 0 | 0 | 0 | (1) | 0 | **10** |
| Other | 172 | 6 | (15) | (112) | 0 | 0 | 0 | (5) | **47** |
| **Total provisions** | 2,831 | 301 | (152) | (1,011) | 12 | 3 | (24) | (174) | **1,786** |

1 Includes provisions for litigation resulting from security risks. 2 Includes provisions for onerous lease contracts of CHF 25 million as of 31 December 2015 (31 December 2014: CHF 14 million) and reinstatement cost provisions for leasehold improvements of CHF 69 million as of 31 December 2015 (31 December 2014: CHF 70 million).

## Note 12 Trading portfolio and other financial instruments measured at fair value

| *CHF million* | 31.12.15 |
|---|---|
| **Assets** | |
| Trading portfolio assets | 94,210 |
| *of which: debt instruments*[1] | *22,261* |
| *of which: listed* | *13,831* |
| *of which: equity instruments* | *70,035* |
| *of which: precious metals and other physical commodities* | *1,915* |
| **Total assets measured at fair value** | 94,210 |
| *of which: fair value derived using a valuation model* | *18,783* |
| *of which: securities eligible for repurchase transactions in accordance with liquidity regulations* | *15,894* |
| **Liabilities** | |
| Trading portfolio liabilities | 21,179 |
| *of which: debt instruments*[1] | *4,190* |
| *of which: listed* | *3,899* |
| *of which: equity instruments* | *16,989* |
| Financial liabilities designated at fair value[2] | 58,104 |
| **Total liabilities measured at fair value** | 79,283 |
| *of which: fair value derived using a valuation model* | *60,520* |

1 Includes money market paper. 2 Refer to Note 18 for more information.

Legal entity financial and regulatory information

## Note 13 Derivative instruments

| | 31.12.15 | | |
|---|---|---|---|
| *CHF billion* | PRV[2] | NRV[3] | Total notional values |
| **Interest rate contracts** | | | |
| Forwards[1] | 0.1 | 0.3 | 2,458 |
| Swaps | 69.3 | 60.7 | 7,636 |
| *of which: designated in hedge accounting relationships* | *0.4* | *0.0* | *6* |
| Futures | 0.0 | 0.0 | 335 |
| Over-the-counter (OTC) options | 17.4 | 19.2 | 1,132 |
| Exchange-traded options | 0.0 | 0.0 | 208 |
| **Total** | 86.9 | 80.1 | 11,769 |
| **Foreign exchange contracts** | | | |
| Forwards | 17.7 | 16.5 | 1,388 |
| Interest and currency swaps | 38.8 | 38.0 | 2,837 |
| Futures | 0.0 | 0.0 | 8 |
| Over-the-counter (OTC) options | 9.6 | 9.3 | 975 |
| Exchange-traded options | 0.0 | 0.0 | 8 |
| **Total** | 66.1 | 63.8 | 5,217 |
| **Equity / index contracts** | | | |
| Forwards | 0.1 | 0.1 | 15 |
| Swaps | 3.5 | 4.6 | 150 |
| Futures | 0.0 | 0.0 | 25 |
| Over-the-counter (OTC) options | 4.7 | 6.7 | 156 |
| Exchange-traded options | 5.5 | 6.5 | 231 |
| **Total** | 13.8 | 18.0 | 577 |
| **Credit derivative contracts** | | | |
| Credit default swaps | 6.0 | 5.9 | 318 |
| Total return swaps | 0.6 | 0.7 | 12 |
| Other | 0.0 | 0.0 | 4 |
| **Total** | 6.7 | 6.5 | 334 |
| **Commodity, precious metals and other contracts** | | | |
| Forwards | 0.3 | 0.3 | 5 |
| Swaps | 0.7 | 0.5 | 19 |
| Futures | 0.0 | 0.0 | 8 |
| Over-the-counter (OTC) options | 0.9 | 0.6 | 19 |
| Exchange-traded options | 0.7 | 0.9 | 11 |
| **Total** | 2.5 | 2.3 | 63 |
| **Total before netting as of 31 December 2015** | 176.0 | 170.7 | 17,960 |
| *of which: trading derivatives* | *175.6* | *170.7* | |
| *of which: fair value derived using a valuation model* | *175.2* | *170.3* | |
| *of which: derivatives designated in hedge accounting relationships* | *0.4* | *0.0* | |
| *of which: fair value derived using a valuation model* | *0.4* | *0.0* | |
| Netting with cash collateral payables / receivables | (18.7) | (9.7) | |
| Replacement value netting | (136.3) | (136.3) | |
| **Total after netting as of 31 December 2015** | 21.0 | 24.7 | |
| *of which: with central clearing counterparties* | *0.0* | *0.6* | |
| *of which: with bank and broker-dealer counterparties* | *7.4* | *9.2* | |
| *of which: other client counterparties* | *13.6* | *14.9* | |

| | 31.12.14 | | |
|---|---|---|---|
| *CHF billion* | PRV[2] | NRV[3] | Total notional values |
| **Total before netting as of 31 December 2014** | 262.2 | 258.7 | 25,017 |
| Netting with cash collateral payables / receivables | (20.0) | (16.0) | |
| Replacement value netting | (199.8) | (199.8) | |
| **Total after netting as of 31 December 2014** | 42.4 | 42.9 | |

1 Includes forward rate agreements. 2 PRV: positive replacement values. 3 NRV: negative replacement values.

## Note 14a Financial investments by instrument type

| | 31.12.15 | |
|---|---|---|
| *CHF million* | **Carrying value** | **Fair value** |
| Debt instruments available-for-sale | **27,296** | **27,354** |
| Equity instruments | **223** | **234** |
| *of which: qualified participations*[1] | ***133*** | ***137*** |
| Property | **9** | **9** |
| **Total financial investments** | **27,528** | **27,598** |
| *of which: securities eligible for repurchase transactions in accordance with liquidity regulations* | ***27,127*** | ***27,181*** |

1 Qualified participations are investments in which UBS AG holds 10% or more of the total capital or has at least 10% of total voting rights.

## Note 14b Financial investments by counterparty rating – debt instruments

| *CHF million* | **31.12.15** |
|---|---|
| **Internal UBS rating**[1] | |
| 0–1 | **26,632** |
| 2–3 | **653** |
| 4–5 | **0** |
| 6–8 | **0** |
| 9–13 | **0** |
| Non-rated | **10** |
| **Total financial investments** | **27,296** |

1 Refer to Note 17 for more information.

## Note 15a Other assets

| | | | % change from |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.14 |
| Settlement and clearing accounts | **116** | 348 | (67) |
| VAT and other indirect tax receivables | **226** | 179 | 26 |
| Bail deposit[1] | **1,210** | 1,323 | (9) |
| Other | **2,435** | 1,718 | 42 |
| *of which: other receivables from UBS Group AG and subsidiaries in the UBS Group* | ***1,850*** | *1,344* | *38* |
| **Total other assets** | **3,986** | 3,568 | 12 |

1 Refer to item 1 in Note 22b to the consolidated financial statements for more information.

## Note 15b Other liabilities

| | | | % change from |
|---|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 | 31.12.14 |
| Deferral position for hedging instruments | **2,826** | 3,597 | (21) |
| Settlement and clearing accounts | **232** | 720 | (68) |
| Net defined benefit liabilities | **129** | 680 | (81) |
| VAT and other indirect tax payables | **110** | 232 | (53) |
| Other | **2,208** | 1,732 | 27 |
| *of which: other payables to UBS Group AG and subsidiaries in the UBS Group* | ***1,694*** | *818* | *107* |
| **Total other liabilities** | **5,505** | 6,962 | (21) |

## Note 16 Pledged assets[1]

The table below provides information on assets that are primarily pledged in connection with derivative transactions. Information for 31 December 2014 included loans pledged to Swiss mortgage institutions and in connection with the issuance of covered bonds. These loans were transferred to UBS Switzerland AG during 2015. The table excludes securities financing transactions.

➔ **Refer to Note 9 for more information on securities financing transactions**

| | 31.12.15 | | 31.12.14 | |
|---|---|---|---|---|
| *CHF million* | Carrying value of pledged assets | Effective commitment | Carrying value of pledged assets | Effective commitment |
| Mortgage loans[2] | 0 | 0 | 27,973 | 21,643 |
| Securities | 2,597 | 258 | 1,568 | 0 |
| Pledges of precious metals to subsidiaries and other | 0 | 0 | 1,153 | 0 |
| **Total pledged assets** | **2,597** | **258** | 30,694 | 21,643 |

1 Excludes assets placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes (31 December 2015: CHF 2.1 billion, 31 December 2014: CHF 4.9 billion). 2 These pledged mortgage loans serve as collateral for existing liabilities against Swiss central mortgage institutions and for existing covered bond issuances. Of these pledged mortgage loans, approximately CHF 0 billion as 31 December 2015 (31 December 2014: approximately CHF 4.5 billion) could be withdrawn or used for future liabilities or covered bond issuances without breaching existing collateral requirements.

## Note 17 Country risk of total assets

The table below provides a breakdown of total non-Swiss assets by credit rating. These credit ratings represent the sovereign credit rating of the country to which the ultimate risk of the underlying asset is related. The ultimate risk country on unsecured loan positions is the domicile of the immediate borrower, or, in the case of a legal entity, the domicile of the ultimate parent entity. For collateralized or guaranteed positions, the ultimate risk country is the domicile of the provider of the collateral or guarantor, or, if applicable, the domicile of the ultimate parent entity of the provider of the collateral or guarantor. For mortgage loans, the ultimate risk country is the country where the real estate is located. Similarly, the ultimate risk country of property and equipment is the country where the property and equipment is located. Assets for which Switzerland is the ultimate risk country are provided separately in order to reconcile to total balance sheets assets.

➔ **Refer to the "Risk management and control" section of this report for more information**

| | | | | | | 31.12.15 | |
|---|---|---|---|---|---|---|---|
| Classification | Internal UBS rating | Description | Moody's Investors Service | Standard & Poor's | Fitch | CHF million | % |
| | 0 and 1 | Investment grade | Aaa | AAA | AAA | 227,855 | 48 |
| | 2 | | Aa1 to Aa3 | AA+ to AA– | AA+ to AA– | 141,073 | 30 |
| Low risk | 3 | | A1 to A3 | A+ to A– | A+ to AA– | 39,846 | 8 |
| | 4 | | Baa1 to Baa2 | BBB+ to BBB | BBB+ to BBB | 19,053 | 4 |
| Medium risk | 5 | | Baa3 | BBB– | BBB– | 4,399 | 1 |
| | 6 | Sub-investment grade | Ba1 | BB+ | BB+ | 2,430 | 1 |
| | 7 | | Ba2 | BB | BB | 84 | 0 |
| | 8 | | Ba3 | BB– | BB– | 73 | 0 |
| High risk | 9 | | B1 | B+ | B+ | 173 | 0 |
| | 10 | | B2 | B | B | 93 | 0 |
| | 11 | | B3 | B– | B– | 954 | 0 |
| | 12 | | Caa | CCC | CCC | 216 | 0 |
| Very high risk | 13 | | Ca to C | CC to C | CC to C | 82 | 0 |
| Distressed | Default | Defaulted | D | D | D | 5 | 0 |
| **Subtotal** | | | | | | 436,336 | 91 |
| Switzerland | | | | | | 40,709 | 9 |
| **Total assets** | | | | | | 477,045 | 100 |

## Note 18 Structured debt instruments

The table below provides a breakdown of financial liabilities designated at fair value which are considered structured debt instruments.

| *CHF million* | **31.12.15** |
|---|---|
| Fixed rate bonds with structured features | **3,017** |
| Structured debt instruments issued: | |
| Equity-linked | **30,236** |
| Rates-linked | **16,118** |
| Credit-linked | **2,949** |
| Commodities-linked[1] | **1,075** |
| FX-linked | **218** |
| Structured over-the-counter debt instruments | **4,491** |
| **Total financial liabilities designated at fair value** | **58,104** |

1 Includes precious metals-linked debt instruments issued.

In addition to financial liabilities designated at fair value, certain structured debt instruments were reported within the balance sheet lines *Bonds issued and loans from central mortgage institutions* and *Due to customers.* These instruments were bifurcated for measurement purposes. As of 31 December 2015, the carrying values of the host instruments amounted to CHF 3,304 million and CHF 320 million, respectively. The carrying values of the bifurcated embedded derivatives were negative CHF 126 million and positive CHF 66 million, respectively.

## Note 19a Share capital

| | **31.12.15** | | | 31.12.14 | | |
|---|---|---|---|---|---|---|
| | Par value in CHF | Number of shares | *Of which: dividend bearing* | Par value in CHF | Number of shares | *Of which: dividend bearing* |
| Share capital[1] | **385,840,847** | **3,858,408,466** | ***3,858,408,466*** | 384,456,091 | 3,844,560,913 | *3,842,445,658* |
| *of which: shares outstanding* | ***385,840,847*** | ***3,858,408,466*** | ***3,858,408,466*** | *384,244,566* | *3,842,445,658* | *3,842,445,658* |
| *of which: treasury shares held by UBS AG* | | | | *211,526* | *2,115,255* | |
| Conditional share capital | **55,235,276** | **552,352,759** | | 51,620,031 | 516,200,312 | |
| *of which: capital increase during the year* | ***1,384,755*** | ***13,847,553*** | | *255,884* | *2,558,844* | |

1 Registered shares issued.

UBS AG's share capital is fully paid up. Each share has a par value of CHF 0.10 and entitles the holder to one vote at the UBS AG shareholder's meeting, if entered into the share register as having the right to vote, as well as a proportionate share of distributed dividends. UBS AG does not apply any restrictions or limitations on the transferability of shares.

### Treasury shares

As of 1 January 2015, UBS AG held 2,115,255 treasury shares, which were exchanged with UBS Group AG shares in 2015.

### Non-distributable reserves

Non-distributable reserves consist of 50% of the share capital of UBS AG, amounting to CHF 193 million as of 31 December 2015.

### Non-cash dividends

During 2015, shares issued by UBS AG increased by 13,847,553 shares due to the issuance of new UBS AG shares out of conditional share capital upon distribution of a share dividend in May 2015.

As part of the establishment of UBS Business Solutions AG, UBS AG transferred its participation in the Poland Service Center as a dividend-in-kind at book value of CHF 5 million to UBS Group AG.

## Note 19b Significant shareholders

| | 31.12.15 | | 31.12.14 | |
|---|---|---|---|---|
| *CHF million, except where indicated* | **Share capital held** | **Shares held (%)** | Share capital held | Shares held (%) |
| **Significant direct shareholder of UBS AG** | | | | |
| UBS Group AG | **386** | **100** | 372 | 97 |
| **Significant indirect shareholders of UBS AG** | | | | |
| Chase Nominees Ltd., London | **35** | **9** | 34 | 9 |
| GIC Private Limited, Singapore | **25** | **6** | 25 | 7 |
| DTC (Cede & Co.), New York[1] | **24** | **6** | 21 | 6 |
| Nortrust Nominees Ltd, London | **14** | **4** | 13 | 4 |

1 DTC (Cede & Co.), New York, "The Depository Trust Company", is a US securities clearing organization.

Significant shareholders presented in this Note are those that, directly or indirectly, hold 3% or more of UBS AG's total share capital. The sole direct shareholder of UBS AG is UBS Group AG, which holds 100% of UBS AG shares. These shares entitle to voting rights. Indirect shareholders of UBS AG included in the table above comprise direct shareholders of UBS Group AG, who are entered into the UBS Group AG share register. The shares and share capital of UBS AG held by indirect shareholders represent their relative holding of UBS Group AG shares. They do not have voting rights in UBS AG.

→ **Refer to Note 22 to the UBS Group AG standalone financial statements for more information on significant shareholders of UBS Group AG**

## Note 20 Swiss pension plan and non-Swiss defined benefit plans

### a) Liabilities related to Swiss pension plan and non-Swiss defined benefit plans

| *CHF million* | **31.12.15** | 31.12.14 |
|---|---|---|
| Provision for Swiss pension plan | **0** | 0 |
| Net defined benefit liabilities for non-Swiss defined benefit plans | **129** | 680 |
| Total provision for Swiss pension plan and net defined benefit liabilities for non-Swiss defined benefit plans | **129** | 680 |
| Bank accounts at UBS and UBS debt instruments held by Swiss pension fund | **260** | 385 |
| UBS derivative financial instruments held by Swiss pension fund | **27** | 102 |
| **Total liabilities related to Swiss pension plan and non-Swiss defined benefit plans** | **416** | **1,168** |

### b) Swiss pension plan

| | As of or for the year ended | |
|---|---|---|
| *CHF million* | **31.12.15** | 31.12.14 |
| Pension plan surplus[1] | **2,243** | 4,572 |
| Economic benefit / (obligation) of UBS AG | **0** | 0 |
| Change in economic benefit / obligation recognized in the income statement | **0** | 0 |
| Employer contributions for the period recognized in the income statement | **270** | 444 |
| Performance rewards related employer contributions accrued | **30** | 45 |
| **Total pension expense recognized in the income statement within Personnel expenses** | **300** | **489** |

1 The pension plan surplus is determined in accordance with FER 26 and consists of the reserve for the fluctuation in asset value. The surplus did not represent an economic benefit for UBS AG in accordance with FER 16 as of 31 December 2015 or 31 December 2014.

UBS AG has elected to apply FER 16 for the Swiss pension plan and IAS 19 for its UK and other non-Swiss defined benefit plans.

→ **Refer to Note 28 to the consolidated financial statements for more information on non-Swiss defined benefit plans in accordance with IAS 19**

The Swiss pension plan had no employer contribution reserve in 2015 or 2014.

## Note 21 Share-based compensation

Following the establishment of UBS Group AG as the ultimate holding company of the UBS Group, the obligations of UBS AG as grantor of certain outstanding awards under employee share, option, notional fund and deferred cash compensation plans were transferred to UBS Group AG. Expenses for such awards granted to UBS AG employees are charged by UBS Group AG to UBS AG. Obligations relating to deferred compensation plans which are required to be, and have been, granted by employing and/or sponsoring subsidiaries, such as UBS AG, have not been assumed by UBS Group AG and will continue on this basis. Furthermore, obligations related to other compensation vehicles, such as defined benefit pension plans and other local awards, have not been assumed by UBS Group AG and are retained by the relevant employing and/or sponsoring subsidiaries, such as UBS AG.

➔ **Refer to Note 29 to the consolidated financial statements for more information**

## Note 22 Related parties

Transactions with related parties are conducted at internally agreed transfer prices, at arm's length, or with respect to loans, fixed advances and mortgages to non-independent members of the Board of Directors and Group Executive Board members on the same terms and conditions that are available to other employees.

| | 31.12.15 | |
|---|---|---|
| *CHF million* | Amounts due from | Amounts due to |
| Qualified shareholders | 581 | 5,776 |
| *of which: Due from/to customers* | *567* | *5,171* |
| Subsidiaries | 119,900 | 87,059 |
| *of which: Due from/to banks* | *37,278* | *28,685* |
| *of which: Due from/to customers* | *23,308* | *8,558* |
| *of which: Receivables/payables from securities financing transactions* | *54,422* | *44,149* |
| Affiliated entities | 117 | 5,752 |
| *of which: Due from/to customers* | *39* | *5,699* |
| Members of the Board of Directors and Group Executive Board | 33 | |
| External auditors | | 20 |
| Other related parties[1] | 9 | |

1 Primarily relates to UBS Securities Co. Limited, Beijing, in which UBS AG has a 24.99% equity interest.

As of 31 December 2015, off-balance sheet positions related to subsidiaries amounted to CHF 26.5 billion, of which CHF 19.4 billion were guarantees to third parties and CHF 5.3 billion were loan commitments.

## Note 23 Fiduciary transactions

| | | | % change from |
|---|---|---|---|
| *CHF million* | 31.12.15 | 31.12.14 | 31.12.14 |
| Fiduciary deposits | 310 | 5,869 | (95) |
| *of which: placed with third-party banks* | *310* | *5,853* | *(95)* |
| *of which: placed with subsidiaries and affiliated entities* | *0* | *16* | *(100)* |
| **Total fiduciary transactions** | 310 | 5,869 | (95) |

Fiduciary transactions encompass transactions entered into or granted by UBS AG that result in holding or placing assets on behalf of individuals, trusts, defined benefit plans and other institutions. Unless the recognition criteria for the assets are satisfied, these assets and the related income are excluded from UBS AG's balance sheet and income statement, but disclosed in this Note as off-balance sheet fiduciary transactions. Client deposits that are initially placed as fiduciary transactions with UBS AG may be recognized on UBS AG's balance sheet in situations in which the deposit is subsequently placed within UBS AG. In such cases, these deposits are not reported in the table above.

## Note 24a Invested assets and net new money

| | For the year ended |
|---|---|
| *CHF billion* | **31.12.15** |
| Fund assets managed | **11** |
| Discretionary assets | **166** |
| Other invested assets | **311** |
| **Total invested assets** | **488** |
| *of which: double count* | ***2*** |
| **Net new money** | **0.0** |

## Note 24b Development of invested assets

| | For the year ended |
|---|---|
| *CHF billion* | **31.12.15** |
| Total invested assets at the beginning of the year[1] | **1,076** |
| Net new money | **0** |
| Market movements[2] | **8** |
| Foreign currency translation | **(29)** |
| Transfer to UBS Switzerland AG | **(557)** |
| Other effects | **(10)** |
| *of which: acquisitions / (divestments)* | ***(10)*** |
| **Total invested assets at the end of the year[1]** | **488** |

1 Includes double counts. 2 Includes interest and dividend income.

➔ **Refer to Note 35 to the consolidated financial statements for more information**

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To the General Meeting of

**UBS AG, Zurich and Basel**

Basel, 10 March 2016

## Report of the statutory auditor on the financial statements

As statutory auditor, we have audited the accompanying financial statements of UBS AG, which comprise the balance sheet, income statement and notes (pages 772 to 792), for the year ended 31 December 2015.

### Board of Directors' responsibility

The Board of Directors is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the company's articles of incorporation. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

### Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion**

In our opinion, the financial statements for the year ended 31 December 2015 comply with Swiss law and the company's articles of incorporation.

## Report on other legal requirements

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (Art. 728 Code of Obligations (CO) and Art. 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriations of available earnings comply with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

Ernst & Young Ltd

Marie-Laure Delarue
Licensed Audit Expert
(Auditor in Charge)

Bruno Patusi
Licensed Audit Expert

## Appendix 2 – Excerpts from the Annual Report 2016 as at 31 December 2016

It should be noted that the term "pro-forma" as used in this Appendix 2 does not refer to the term "pro forma financial information" within the meaning of Regulation (EC) 809/2004.

# Current market climate and industry trends

## Global economic developments in 2016

Global growth slowed modestly in 2016. Each of the world's major economic areas – the US, the eurozone and China – saw slower growth, primarily due to lower investment spending. Brazil and Russia experienced another year in recession, and Japan's growth remained muted. India delivered very strong growth.

At a global level, economic uncertainty meant investment spending continued to fall short of pre-financial crisis levels, despite record low interest rates across much of the world. In 2016, the trend of slower investment spending was exacerbated by low energy prices, which led to further cutbacks in capital investment, particularly in the US and Russia. Oil prices saw an improvement toward the end of the year, primarily as a result of an OPEC decision to reduce production, but geopolitical and economic uncertainty poses a risk to a broad recovery in investment spending.

Despite these conditions, equity markets delivered generally positive performance. After a challenging start to 2016 on concerns about China and a decline in oil prices, global equity markets rallied to record highs, supported by the economic stimulus in China, and the Bank of England's monetary easing policy in response to the rise in political uncertainty following the outcome of the UK referendum on EU membership.

Fixed income markets performed well through much of the year, although signs of rising US inflation and expectations of fiscal stimulus led to a sharp sell-off toward the year-end. Currency markets saw a recovery in the Brazilian real and the South African rand, while the British pound and Mexican peso declined sharply following the outcomes of the UK referendum on EU membership and the US presidential election, respectively.

US growth was lower than expected, primarily due to stagnation in business investment in the energy sector. Private consumption remained relatively robust, jobs growth was strong, unemployment decreased, and improving wage growth and credit availability proved supportive of consumer confidence. The US Federal Reserve Board raised interest rates just once toward the end of the year. Political and financial market uncertainty led the Federal Reserve Board to proceed with caution in 2016.

In Japan, growth remained positive due to positive net exports, but continued to show little response to the extensive monetary and fiscal stimulus put in place in recent years. Weak wage growth, uncertainty over social security, and a negative wealth effect resulting from an appreciating yen weighed on consumption.

The Bank of Japan introduced a new policy of yield curve control to cap longer-term interest rates, contributing to yen weakness in the latter months of the year.

In Europe, growth slowed a little, but proved resilient following the outcome of the UK referendum on EU membership. Exceptionally loose monetary policy, low oil prices and improving credit conditions supported growth in the eurozone. Meanwhile, UK growth was aided by the effects of stronger than expected household consumption following the referendum, as well as a weaker British pound and lower interest rates.

The Swiss economy recovered from the sharp appreciation of the Swiss franc in the prior year, with economic growth accelerating in 2016 to almost double the pace of 2015. Continued sound growth in key eurozone trading partners benefited exports, after a slowdown in 2015.

Growth in emerging markets was highly divergent. The slowdown in China proved milder than anticipated, as a rebound in real estate prices and construction stabilized the economy after an uncertain start in 2016. India saw another year of strong growth, driven largely by private consumption, although uncertainty related to the government's action to take high-value banknotes out of circulation acted as a temporary brake on growth toward the end of the year. Brazil saw a second year of deep recession, with private consumption and investment continuing to suffer from high rates of inflation, interest rate hikes, and persistent political uncertainty. Russia's economy contracted again, but less severely than in 2015, as the economy showed signs of adjustment to the drop in oil prices, with consumption recovering well in the latter half of the year.

## Economic and market outlook for 2017

We expect a modest acceleration in global growth in 2017, supported by accelerating growth in the US, a beginning of recovering from the recessions in Brazil and Russia, and only modest slowdowns in Europe and China. Central bank policy globally is expected to remain broadly supportive, as the European Central Bank is likely to continue with quantitative easing, even if at a slower pace, even as the Federal Reserve Board continues to increase rates.

US consumption continues to benefit from an improving labor market, while a post-election rally in business sentiment bodes well for investment spending and deregulation could provide additional stimulus. Eurozone growth could slow modestly as political uncertainty weighs on investment spending and the positive effects of monetary easing begin to wane. A recovery in the euro and in oil prices might also slow exports and consumption, respectively. Switzerland is expected to see a continuation of steady growth, although uncertainty over corporate tax reform and the continued Swiss franc strength present headwinds. China is likely to see slower growth as the real estate and construction boom slows, but quasi-fiscal and credit stimuli are likely to keep growth steady. More stable commodity prices and currencies should prove helpful for Brazil and Russia.

Major risks to growth and markets relate to uncertainty regarding the effect of higher US interest rates, the possibility of greater protectionism in response to changes in US trade policy, uncertainty raised by the commencement of the UK's negotiation of its withdrawal agreement with the EU, and the potential for surprises from election outcomes in the Netherlands, France and Germany. China's management of its rising debt levels and economic transition remains an important medium-term factor, as does the possibility of heightened geopolitical tensions in an uncertain global environment.

## Industry trends

### Wealth accumulation

The wealth management industry offers fundamentally attractive economics with a forecast for robust wealth accumulation around the world. According to the Boston Consulting Group Global Wealth Report 2016, the ultra high net worth segment is expected to expand by about 9.5% annually from 2015 to 2020, and the high net worth segment by about 9.4% annually. Asia Pacific and the emerging markets are expected to be the fastest-growing regions, with an estimated annual market growth rate of 14.0% and 10.4% for the high net worth, and 16.0% and 12.4% for the ultra high net worth segments, respectively. Mature markets, such as Western Europe and North America, are forecast to see wealth accumulation grow within the high net worth and ultra high net worth segments at an annual rate exceeding expected gross domestic product growth. We believe that wealth management is likely to remain a highly fragmented industry with high barriers to entry due to the significant investments needed to meet current and proposed regulatory requirements.

### Demographics, wealth transfer and retirement funding

Demographic changes, particularly escalating costs associated with the care of an aging population and the funding challenges faced by public pension systems, will be a key long-term driver for both wealth consumption and wealth transfer. Pressures on public pension schemes will make reform a pressing matter in several countries. Although change in public pension schemes will vary, a general and gradual shift from public to privately funded pension schemes seems inevitable.

These developments are expected to benefit our businesses, as individuals and privately funded pension schemes seek investment advice and tailored service offerings with a relevant product range. We believe that our strong capabilities in asset management, as well as our ability to tailor our service offerings to our clients' financial needs and preferences, put us in a position of strength to address these emerging needs.

### Digitalization

Over the last few years, investments in financial technology have increased sharply. The market expects continued digital disruption in the financial industry, driven by consumer preferences and expectations. We strongly believe that core technologies, such as automated investment advice, mobile access to banking services and distributed ledger technology, will become mainstream in the financial services industry. Digital capabilities are likely to play a significant role in transforming how banks interact with clients and how they operate internally.

### Further adaptation of operating models

Increases in operational cost pressure, reflecting higher regulatory costs and a subdued revenue environment, will drive financial services firms to seek more efficient operating models. This push for efficiency is forcing banks to reassess their front-to-back processes, focus on identifying potential for standardization, and reconsider the ownership of value chain components. Over the past few years, a diverse network of suppliers and service providers for different parts of the banking industry value chain has emerged, in particular by disrupting the traditional approach to process ownership, service and supply chain.

### Consolidation

Increasing investment requirements along with constrained supply, a stronger refocus on core businesses and a subdued macro environment will continue to drive and accelerate efficiency efforts that are likely to span all functions in the banking business. A retrenchment of banks' operations to their core markets is expected to continue, with banks curtailing or even abandoning completely some of their past international expansion efforts. This is expected to foster concentration in certain markets, but also increase competition in certain business lines in order to gain scale and more efficiency.

Considering continuous cost pressures, the industry is likely to seek opportunities to achieve further increased efficiency of non-client-facing logistics and control functions, and the emergence of more utility-like models, for example, centralized providers of banking infrastructure or shared service companies, is increasingly probable. Moreover, we will continue to see banks focusing on their business portfolios, exiting their non-core products and geographies, and further crystallizing and sharpening their core value proposition in order to increase revenues, reduce costs and improve their balance sheets. This could lead to added pressure on profitability.

## Banking intermediation developments

Against the backdrop of digitalization and new market participants, the banking sector's role as a facilitator of economic policy and an enabler of domestic growth may come under pressure, as well as be subjected to renewed public discussion and regulatory scrutiny. The combination of enhanced regulatory requirements, reduced risk appetite and subdued macroeconomic prospects continues to curb the lending appetite of banks. While banks are currently still active in more specific or niche areas, such as long-dated assets and high-risk lending, other financial industry players are increasingly stepping into banking intermediation and risk-taking areas. It is expected that this trend will continue with its extent and pace depending on regulatory developments.

Despite these challenges, we believe banks still have the necessary capital and the competitive ability to preserve their core role in the economy and to have continued access to their traditional sources of revenue.

## Regulation

There has been continuous regulatory pressure on the financial services industry to become simpler, more transparent and more resilient, and we expect that regulation will remain a major driver of change and costs for the industry.

We believe we have the right business model to comply with new, more demanding regulations without the need to change our strategy. We have one of the highest fully applied CET1 capital ratios among our peer group of large global banks and we have made substantial progress in our efforts to improve resolvability. We are well prepared to meet the requirements of the revised Swiss too big to fail framework by the effective date in 2020, and we intend to use this period to fully implement the new requirements.

→ **Refer to the "Regulatory and legal developments" and "Capital management" sections of this report for more information**

# Regulation and supervision

The Swiss Financial Market Supervisory Authority (FINMA) is UBS's home country regulator and consolidated supervisor. As a financial services provider with a global footprint, we are also regulated and supervised by the relevant authorities in each of the jurisdictions in which we conduct business, including the US, the UK and the rest of the EU. Through UBS AG and UBS Switzerland AG, which are licensed as banks in Switzerland, we may engage in a full range of financial services activities in Switzerland and abroad, including personal banking, commercial banking, investment banking and asset management.

As we are a designated global systemically important bank (G-SIB) and considered systemically relevant in Switzerland, we are subject to more rigorous regulatory requirements and supervision than most other Swiss banks. Since the financial crisis of 2007–2009, regulation of financial services firms has been undergoing significant changes both in Switzerland and in the other countries where we operate. These changes, which continue to require significant resources to implement, have a material effect on how we conduct our business and result in increased ongoing costs.

→ **Refer to the "The legal structure of UBS Group" section of this report for more information**

→ **Refer to the "Regulatory and legal developments" and "Risk factors" sections of this report for more information**

## Regulation and supervision in Switzerland

### *Supervision*

UBS Group AG and its subsidiaries are subject to consolidated supervision by FINMA under the Swiss Federal Law on Banks and Savings Banks (Swiss Banking Act) and the related ordinances that impose, among other requirements, minimum standards for capital, liquidity, risk concentration and organizational structure. FINMA fulfills its statutory supervisory responsibilities through licensing, regulation, monitoring and enforcement. FINMA is responsible for the prudential supervision and mandates audit firms to perform on its behalf a regulatory audit and certain other supervisory tasks.

### *Resolution planning and resolvability*

The Swiss Banking Act and related ordinances provide FINMA with additional powers to intervene in order to prevent a failure or resolve a failing financial institution, including UBS Group AG, UBS AG and UBS Switzerland AG. These measures may be triggered when certain thresholds are breached and permit the exercise of considerable discretion by FINMA in determining whether, when or in what manner to exercise such powers. In case of a possible insolvency, FINMA may impose more onerous requirements on us, including restrictions on the payment of dividends and interest as well as measures to alter our legal structure (e.g., to separate lines of business into dedicated entities, with limitations on intra-group funding and certain guarantees) or to reduce business risk in some manner. The Swiss Banking Act provides FINMA with the ability to extinguish or convert to common equity the liabilities of the Group in connection with its resolution.

Furthermore, Swiss too big to fail requirements require Swiss systemically relevant banks, including UBS, to put in place viable emergency plans to preserve the operation of systemically important functions in case of a failure of the institution, to the extent that such activities are not sufficiently separated in advance. In response to these requirements in Switzerland, as well as to similar requirements in other jurisdictions, UBS has developed comprehensive recovery plans that provide the tools to manage a severe loss event. UBS also provides relevant authorities with resolution plans for restructuring or winding down certain businesses in the event the firm could not be stabilized. Alongside these measures, the bank has invested significantly in structural, financial and operational ring-fencing measures to improve the Group's resolvability.

→ **Refer to the "Capital management" section of this report for more information on the Swiss SRB framework and the Swiss too big to fail requirements**

→ **Refer to the "Treasury management" section of this report for more information on liquidity coverage ratio requirements**

## Regulation and supervision outside Switzerland

### *Regulation and supervision in the US*

In the US, UBS is subject to overall regulation and supervision by the Board of Governors of the Federal Reserve (Federal Reserve Board) under a number of laws. Furthermore, our US operations are subject to additional oversight by the Federal Reserve Board's Large Institution Supervision Coordinating Committee, which coordinates supervision of large or complex financial institutions.

UBS AG is a financial holding company under the Bank Holding Company Act and maintains several branches and representative offices in the US, which are authorized and supervised by either the Office of the Comptroller of the Currency or the state banking authority of the state in which the branch is located. UBS AG is currently registered as a swap dealer with the Commodity Futures Trading Commission (CFTC), and we expect to register it as a security-based swap dealer with the Securities and Exchange Commission (SEC) when such registration is required.

UBS Americas Holding LLC, the holding company for our non-branch operations in the US as required under the Dodd-Frank Act, is subject to risk-based capital, liquidity, Comprehensive Capital Analysis and Review, stress test, capital plan and governance requirements established by the Federal Reserve Board.

UBS Bank USA, a Federal Deposit Insurance Corporation-insured depository institution subsidiary, is licensed and regulated by state regulators in Utah.

UBS Financial Services Inc., UBS Securities LLC and several other US subsidiaries are subject to regulation by a number of different government agencies and self-regulatory organizations, including the SEC, the Financial Industry Regulatory Authority, the CFTC, the Municipal Securities Rulemaking Board and national securities exchanges, depending on the nature of their business.

### *Regulation and supervision in the UK*

Our operations in the UK are mainly regulated and supervised by the Prudential Regulation Authority (PRA), an affiliated authority of the Bank of England, and the Financial Conduct Authority (FCA). Some of our subsidiaries and affiliates are also regulated by the London Stock Exchange and other UK securities and commodities exchanges of which they are a member.

UBS Limited is a private limited company incorporated in the UK and is authorized by the PRA and regulated by the PRA and the FCA to conduct a broad range of banking and investment business.

UBS AG maintains a UK-registered branch in London that serves as a global booking center for our Investment Bank.

Financial services regulation in the UK is currently conducted in accordance with EU directives covering, among other topics, compliance with certain capital and liquidity adequacy standards, client protection requirements and business conduct principles. This may be subject to change depending on how the relationship between the UK and the EU evolves.

### *Regulation and supervision in Germany*

UBS Europe SE, headquartered in Frankfurt, Germany, is supervised by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and subject to EU and German laws and regulations. UBS Europe SE was established in the fourth quarter of 2016, following the merger of UBS Deutschland AG and our Wealth Management subsidiaries in Germany, Italy, Luxembourg (including its branches in Austria, Denmark and Sweden), the Netherlands and Spain.

## Anti-money laundering and anti-corruption

A major focus of government policy relating to financial institutions in recent years has been combating money laundering and terrorist financing. The US Bank Secrecy Act and other laws and regulations applicable to UBS require the maintenance of effective policies, procedures and controls to detect, prevent and report money laundering and terrorist financing, and to verify the identity of our clients. Failure to maintain and implement adequate programs to prevent money laundering and terrorist financing could result in significant legal and reputational risk.

We are subject to laws and regulations in jurisdictions in which we operate, including the US Foreign Corrupt Practices Act and the UK Bribery Act, prohibiting corrupt or illegal payments to government officials and others. We maintain policies, procedures and internal controls intended to comply with these laws and regulations.

## Data protection

We are subject to laws and regulations concerning the use and protection of customer, employee, and other personal and confidential information, including provisions under Swiss law, the EU Data Protection Directive and laws of other jurisdictions.

→ **Refer to the "Risk factors" section of this report for more information**

# Regulatory and legal developments

## Key international developments

### Revisions of BCBS capital framework and ongoing consultations

*Proposed revisions to the Pillar 1 requirements*

The Basel Committee on Banking Supervision (BCBS) is currently finalizing a comprehensive reform package for the Basel III capital framework, the elements of which have been proposed in a series of separate consultation papers. High-level guidance on the revisions issued by the BCBS in November 2016 included: (i) the revised standardized approach to credit risk will be more risk-sensitive and more consistent with banks' internal model-based approaches, which are subject to approval by the home country regulator; (ii) a revised standardized approach for operational risk will replace the existing approaches, including the advanced measurement approach, which is based on banks' internal models and also subject to approval by the home country regulator; and (iii) a leverage ratio surcharge for global systemically important banks (G-SIBs) will be introduced. In addition, an aggregate output floor, in relation to the level of capital required, is expected to be part of the reform package. Final rules, which were expected to be issued in January 2017, have been delayed. We expect that if the proposals are adopted in their current form and implemented in Switzerland, the proposed changes to the capital framework will likely result in a significant increase in our overall RWA without considering the effect of mitigating measures.

*Revisions to the Pillar 2 requirements*

In April 2016, the BCBS revised its 2004 principles for the management and supervision of interest rate risk. The revised standards include guidance on the development of interest rate shock scenarios, enhanced quantitative disclosure requirements as well as an updated standardized framework, which banks could be mandated to follow. The impact of these revisions can only be determined once its implementation in national prudential regulations becomes clearer.

*Revisions to the Pillar 3 requirements*

FINMA has revised its Pillar 3 disclosure requirements to reflect changes to the BCBS Pillar 3 standards. Requirements relating to the 2015 BCBS revisions became effective for Swiss banking institutions on 31 December 2016 with additional requirements to be implemented during 2017. Further revisions to the Pillar 3 framework are expected as part of the finalization of the Basel III capital framework.

→ **Refer to the "Significant accounting and financial reporting changes" section of this report and the "Basel III Pillar 3 UBS Group AG 2016" report under "Pillar 3, SEC filings & other disclosures" at *www.ubs.com/investors* for more information**

*Consultation on regulatory capital treatment of accounting provisions*

In October 2016, the BCBS issued a consultative document and a discussion paper on the Basel III regulatory capital treatment of accounting provisions following the publication of IFRS 9, *Financial Instruments,* issued by the International Accounting Standards Board, and the Current Expected Credit Loss (CECL) model, issued by the US Financial Accounting Standards Board. The new rules require the use of expected credit loss models as opposed to the currently applied incurred credit loss impairment approach under IFRS and US GAAP. UBS will adopt the IFRS 9 requirements on 1 January 2018. The BCBS consultative document proposes to retain for an interim period the current regulatory treatment of accounting provisions. This would result in the impact of IFRS 9 on common equity tier 1 capital to be limited to the excess of expected credit losses over the current regulatory expected losses for banks applying the internal ratings-based (IRB) approach. The BCBS also considers the adoption of transitional arrangements to phase in this impact. The BCBS discussion paper sets out longer-term options that include retaining the current regulatory treatment and introducing an expected credit loss component to the standardized regulatory approach. The consultation period ended in January 2017.

→ **Refer to the "Significant accounting and financial reporting changes" section of this report for more information**

### Developments on TLAC and MREL requirements

Following the publication of the Financial Stability Board's (FSB) international total loss-absorbing capacity (TLAC) standard in November 2015, a number of major jurisdictions issued TLAC requirements during 2016.

Switzerland was the first jurisdiction to implement TLAC requirements as part of the revision of the Swiss Capital Adequacy Ordinance that became effective on 1 July 2016. Subject to a limited reduction of the gone concern requirement based on improvements to our resolvability, the TLAC requirements applicable to UBS as of 1 January 2020 are 28.6% of RWA (excluding countercyclical buffer requirements) and 10% of the leverage ratio denominator. The revised Capital Adequacy Ordinance requires that TLAC-eligible instruments be issued out of a holding company, which would increase the overall tax burden for the Group under the current Swiss tax law. The Swiss Federal Council has requested the Federal Tax Administration to propose amendments to the Swiss tax law in order to address this issue.

In November 2016, the Bank of England published the final UK Minimum Requirement for own Funds and Eligible Liabilities (MREL) rules, including minimum standards for domestic systemically important banks (D-SIBs) in the UK, such as UBS Limited. Starting as of 1 January 2020, D-SIBs will have to meet MREL requirements amounting to the greater of (i) a multiple, initially less than two and increasing to two as of 1 January 2022, of the Pillar 1 requirement of 8% and an institution-specific add-on, or (ii) if subject to a leverage ratio requirement, two times the applicable requirement of currently 3%.

Also in November 2016, the European Commission (EC) published a proposal to integrate the FSB TLAC standard into the EU MREL regime. The EC proposes to apply MREL requirements to global systemically important institutions (G-SIIs) calculated at 16% of RWA and 6% of the leverage exposure measure as of 1 January 2019, increasing to 18% and 6.75%, respectively, as of 1 January 2022. The proposal would also introduce internal MREL requirements for material subsidiaries of non-EU G-SIIs.

In December 2016, the Federal Reserve Board issued a final rule that will apply TLAC requirements, minimum long-term debt requirements and clean holding company requirements to all US G-SIBs and to foreign G-SIBs' US intermediate holding companies (covered IHCs), including UBS Americas Holding LLC. The final rule will require covered IHCs to maintain debt to the parent G-SIB qualifying as TLAC (internal TLAC) of at least the greatest of 16% of RWA, 6% of leverage exposure or 9% of average total consolidated assets, plus a buffer, including eligible long-term debt of at least the greatest of 6% of RWA, 2.5% of leverage exposure or 3.5% of average total consolidated assets. The final rule prohibits covered IHCs from having liabilities to unrelated third parties that exceed 5% of its total TLAC (clean holding company requirement) unless all of its TLAC is contractually subordinated to third-party liabilities. It further prohibits a covered IHC from incurring short-term debt, entering into derivatives with unaffiliated parties and issuing certain guarantees. The rule becomes effective as of 1 January 2019.

→ **Refer to the "Capital management" section of this report for more information on the revised Swiss SRB framework**

### Implementation of margin requirements for non-cleared OTC derivatives

The G20 commitments on derivatives call for adoption of mandatory exchange of initial and variation margin for uncleared over-the-counter (OTC) derivative transactions (margin rules).

Margin rules for the largest counterparties (phase 1 counterparties) became effective in the US, Canada and Japan on 1 September 2016 and in the EU, Switzerland and major jurisdictions in Asia in the first quarter of 2017. Margin requirements for the next group of counterparties, including significant numbers of end users, have generally become effective in these jurisdictions on 1 March 2017. In recognition of the low level of industry and end-user readiness for these requirements, regulators in many of these jurisdictions have issued supervisory guidance or other relief intended to allow market participants to continue to transact while proceeding as quickly as practicable to implement the requirements. This relief is generally effective until September 2017. The non-cleared margin requirements will have a significant operational and funding impact on the OTC derivatives activities of UBS and many of our clients. The delays in the completion of rulemaking have affected our ability to complete the execution of required documentation and operational processes with counterparties ahead of relevant compliance dates, which may limit our and other dealers' ability to transact with clients until this is remedied.

## Key developments in Switzerland

### Implementation of the mass immigration initiative

In December 2016, the Swiss Parliament passed changes to the Foreign Nationals Act to implement the mass immigration initiative of February 2014. The rules aim to make better use of the domestic workforce by giving preferential treatment to the unemployed who are resident in Switzerland. In professions, industries or regions where unemployment is above average, employers will be required to advertise vacant positions to employment agencies and to select suitable agency-registered job seekers for interviews. However, employers will not be required to justify decisions not to hire such candidates. The Swiss Parliament deems the new rules compatible with the Agreement on the Free Movement of Persons between Switzerland and the EU.

The legislation is subject to an optional national referendum vote, for which 50,000 signatures of Swiss citizens would have to be collected by 7 April 2017. If there is no referendum vote, the rules will take effect after this deadline.

### Corporate Tax Reform III rejected in referendum vote

In June 2016, the Swiss Parliament approved legislation to reform the Swiss corporate tax code. The reform aimed to align the individual cantonal corporate tax regimes with international standards by eliminating reduced holding company tax rates and other privileges and providing a set of both optional and mandatory measures for the cantons to mitigate the effect on the corporate tax burden.

The reform was rejected by popular referendum on 12 February 2017. The Federal Council announced that a new proposal will be drafted.

### Company law reform

In November 2016, the Swiss Federal Council submitted a draft bill to Parliament proposing to reform Swiss company law. The revision is aimed at transferring the provisions of the Ordinance against Excessive Compensation in Listed Companies Limited by Shares into the relevant federal law. Moreover, the Federal Council included new proposals to balance gender representation at senior executive and board level in listed companies and to introduce transparency rules for payments to government authorities by commodity firms.

Under the current proposal, we expect the impact on UBS to concern mainly corporate governance and shareholder rights. However, the exact impact can only be determined once the final law has been passed.

### Switzerland begins automatic exchange of information

Automatic exchange of information in tax matters (AEI) between Switzerland and all EU member states and a number of other countries took effect on 1 January 2017. The first exchange of information between Switzerland and tax authorities in these countries will begin in 2018 based on 2017 data. The Swiss Federal Department of Finance has initiated consultations to extend the standard to additional countries.

We have experienced outflows of cross-border client assets as a result of changes in local tax regimes or their enforcement.

### FINMA launches consultations on revision of Swiss Banking Insolvency Ordinance

In September 2016, the Swiss Financial Market Supervisory Authority (FINMA) conducted a consultation on revisions to the Banking Insolvency Ordinance, which governs restructuring proceedings and bankruptcy proceedings for Swiss banking institutions. The draft includes provisions on the requirement for banks to include in financial contracts that are subject to foreign laws or foreign places of jurisdiction contractual acknowledgment of FINMA's ability to temporarily postpone exercise of remedies against banks. Such postponement is intended to ensure the continuation of key contractual relationships without interruption in crisis situations. Regulatory authorities in the UK, France, Germany, Japan, Switzerland and the US have adopted or proposed similar requirements to increase legal certainty in cross-border bank resolutions. Implementation of these requirements is likely to require us to amend the terms of a significant number of trading agreements.

### FINMA issues final corporate governance guidelines for banks

In November 2016, FINMA issued a circular on corporate governance, risk management and internal controls at banks. The circular sets out the duties and responsibilities of boards of directors and executive board members and defines requirements for the design of the relevant group-wide risk management framework, the internal control framework and the internal audit function. At the same time, FINMA introduced new principles on IT and cyber risks in the circular on operational risk. We do not expect the aforementioned requirements to have a significant impact on us. In addition, FINMA revised the circular on remuneration schemes. The requirements will enter into force on 1 July 2017 and will also apply to UBS.

### Switzerland launches consultation on data protection

In an effort to improve data protection and to reflect the new technological and social landscape in existing laws, the Swiss Federal Council launched a consultation on the proposed revision of the data protection law in December 2016. The Federal Council intends to increase the transparency of data processing and strengthen data privacy. To this end, individuals and institutions with access to personal data should be subject to increased transparency and information requirements. The revision would enable Switzerland to meet the requirements of the EU directive on data protection and to ratify the revised Council of Europe Convention on the Protection of Individuals with regard to Automatic Processing of Personal Data, both of which are key to ensuring that the EU continues to recognize Switzerland as having an adequate level of data protection and that cross-border data transmission will remain possible in the future. Implementation of new data protection requirements has required and will require significant investment by the Group.

### Parliamentary debate on FinSA and FinIA

The Financial Services Act (FinSA) and Financial Institutions Act (FinIA), which were approved by the Swiss Federal Council in November 2015, have entered parliamentary debate. The two comprehensive acts will have far-reaching consequences for the provision of financial services in Switzerland. The FinSA primarily aims to improve client protection, while the FinIA will introduce a prudential supervision of managers of individual client assets, managers of the assets of occupational benefits schemes and trustees. The upper house of the Swiss Parliament made a number of major adjustments to the proposal by the Federal Council, e.g., by reducing the areas of expanded information, documentation and clarification duties. The lower house of Parliament starts its debate in the first quarter of 2017.

## Key developments in the EU

### EC proposes implementation rules for Basel III reforms

In November 2016, alongside its proposals to implement the FSB TLAC standard, the European Commission (EC) published proposals to implement the remaining elements of the Basel III reforms in the EU. The proposals would require non-EU G-SIBs with two or more EU entities to establish an EU-domiciled intermediate holding company. In addition, banks would be required to maintain a tier 1 leverage ratio of 3%, with the possibility of a G-SII add-on, and a minimum net stable funding ratio of 100%. The EC would also create a new asset class of non-preferred senior debt, which would rank below other senior debt in insolvency. The precise impact on UBS will depend on the final rules and their implementation at a national level.

### UK referendum on EU membership

Following the result of the June 2016 referendum on the UK's membership in the EU, the UK prime minister, Theresa May, has confirmed the UK will invoke Article 50 of the Treaty on European Union by no later than the end of March 2017 subject to passing the necessary legislation required by the Supreme Court judgment on 24 January 2017. This will trigger a two-year period, subject to extension, during which the UK will negotiate its withdrawal agreement with the EU. Barring any changes to this time schedule, it is expected that the UK will formally leave the EU in early 2019. The future of the UK's relationship with the EU remains unclear, although the UK government has stated that the UK will leave the EU single market and will seek a phased period of implementation for the new relationship that could cover the legal and regulatory framework for the financial services industry.

Any future limitations on providing financial services into the EU from our UK operations could require us to make potentially significant changes to our operations in the UK and our legal structure. Potential effects of a UK exit from the EU and potential mitigating actions may vary considerably depending on the timing of withdrawal and the nature of any transition or successor arrangements.

### Application of MiFID II/MiFIR package postponed until January 2018

The EU Markets in Financial Instruments Directive II and Regulation package (MiFID II / MiFIR) came into force in July 2014. The bulk of the requirements were intended to become applicable on 3 January 2017, with transitional provisions in several areas. However, taking into account the significant technical implementation challenges faced by regulators and market participants, the application date has been postponed to 3 January 2018. MiFID II / MiFIR will affect many areas of our business in the Investment Bank, Wealth Management, Asset Management and Personal & Corporate Banking. We have a Group-wide implementation program in place for MiFID II / MiFIR.

### EU Benchmarks Regulation entered into force

The EU Benchmarks Regulation (EBR), which aims to improve the accuracy and integrity of benchmarks, entered into force on 30 June 2016 and the majority of requirements will take effect as of 1 January 2018. New EU and third-country benchmarks may not be used in the EU after 1 January 2018 unless they comply with EBR. Existing benchmarks (financial indices used as a reference in financial instruments, contracts or investment funds on 1 January 2018) are subject to transitional provisions. The regulation will have a cross-divisional and a cross-regional impact, as it affects UBS at three levels: administrator of UBS benchmarks, contributor to various benchmarks, and as a user of benchmarks. The governance, control and transparency requirements for administrators and contributors will have cost implications. The application of EBR may have a significant effect across the industry as it may result in a reduction in benchmarks available for use in financial instruments and financial contracts or to measure the performance of investment funds.

## Key developments in the US

### US Department of Labor finalizes fiduciary rule

In April 2016, the US Department of Labor (DOL) adopted a rule that expands the definition of "fiduciary" under the Employee Retirement Income Security Act of 1974 (ERISA). On 1 March 2017, the DOL proposed a 60 day extension of the current 10 April 2017 applicability date of the fiduciary rule and its exemptions. The proposed delay is intended to give the DOL time to commence an examination of the rule called for by a memorandum issued by President Donald Trump on 3 February 2017. That memo directed the DOL to review the fiduciary rule to "determine whether it may adversely affect the ability of Americans to gain access to retirement information and financial advice." The rule would require all advisors, including broker-dealers, to abide by an ERISA fiduciary standard in dealings with qualified retirement plans and individual retirement accounts. It would also prohibit various customary transactions and fee arrangements in the financial services industry with respect to retirement plan investors, unless certain exemption criteria are fully met. Wealth Management Americas and Asset Management would be required to materially change some of their business processes in response to the rule.

### Changes to rules regulating systemic risks

UBS Americas Holding LLC, the intermediate holding company for our US subsidiaries, is subject to US capital requirements, governance requirements and other prudential regulation, including the Comprehensive Capital Analysis and Review (CCAR) process beginning in 2017. In January 2017, the Federal Reserve Board adjusted its capital plan and stress testing rules. Among other changes, the rules will decrease the amount of capital any firm subject to the quantitative requirements of CCAR can distribute to shareholders outside an approved capital plan without seeking prior approval from the Federal Reserve Board from 1% to 0.25%. This change will apply to UBS Americas Holding LLC for the 2017 CCAR cycle. As announced by Federal Reserve Board Governor Daniel Tarullo in September 2016, the Federal Reserve Board may further revise the CCAR process and make various changes to the modeling assumptions used in the CCAR scenarios. The revised CCAR process could, among other things, require firms to hold an additional stress capital buffer determined every year.

Separately, in March 2016, the Federal Reserve Board proposed a rule to impose new limits on significant single-counterparty credit exposures of large banking organizations, including large US bank holding companies and US operations of foreign banking organizations. The proposal would apply single-counterparty credit limits to US-domiciled bank holding companies with total consolidated assets of USD 50 billion or more. The proposed limits are designed to become more stringent as the systemic importance of a firm increases. Under the proposal, the exposure of UBS's US operations to another systemically important financial firm would be limited to a maximum of 15% of our tier 1 capital, and exposure to any other single counterparty would be restricted to 25% of our tier 1 capital. In addition, the single-counterparty credit limits would apply separately to UBS Americas Holding LLC, based on its capital. If adopted as proposed, these limits may affect how UBS conducts its operations in the US, including the use of other financial firms for payments and securities clearing services and as transactional counterparties.

### US incentive compensation regulation

In May 2016, US federal financial regulators, including the Board of Governors of the Federal Reserve (Federal Reserve Board), jointly proposed regulations that would, among other things, (i) prescribe mandatory deferral amounts and periods for incentive compensation based on the size of the financial institution and (ii) require downward adjustment, forfeiture and / or claw-back of incentive compensation in certain circumstances. The proposal would apply to incentive compensation plans of our principal operating entities in the US and would prescribe specific deferral and forfeiture requirements for executive officers, highly compensated employees and significant risk takers as defined in the proposal. If implemented as proposed, these regulations would require changes to our incentive compensation programs.

→ **Refer to the "Risk factors" section of this report for more information**

# Our strategy

## Who we are

### The world's largest and only truly global wealth manager

Our strategy is centered on our leading wealth management businesses and our premier universal bank in Switzerland, which are enhanced by Asset Management and the Investment Bank. We focus on businesses that have a strong competitive position in their targeted markets, are capital efficient, and have an attractive long-term structural growth or profitability outlook. We are the world's largest and only truly global wealth manager, with a strong presence in the largest and fastest growing markets. Our wealth management businesses benefit from significant scale in an industry with attractive growth prospects, increasingly high barriers to entry, and their leading position across the attractive high net worth and ultra high net worth client segments. We are the preeminent universal bank in Switzerland, the only country where we operate in all business divisions. Our leading position in our home market is central to UBS's global brand and profit stability. The partnership between our wealth management businesses and our other businesses is a key differentiating factor and a source of competitive advantage.

### Strong capital position and capital efficient business model

Capital strength is the foundation of our strategy and provides another competitive advantage. Our fully applied common equity tier 1 (CET1) capital ratio is one of the highest among large global banks, and we are well-positioned to meet the revised fully applied Swiss too big to fail provisions as of 1 January 2020. Our capital-accretive and efficient business model helps us adapt to changes in regulatory requirements, while pursuing growth opportunities without the need for significant earnings retention. We believe that our business model can generate an adjusted return on tangible equity of more than 15% in a normalized market environment.

### We are committed to an attractive capital returns policy

Our earnings capacity and capital efficiency support our objective to deliver sustainable and growing capital returns to our shareholders. We are committed to a total capital return of at least 50% of net profit attributable to shareholders, provided that we maintain a fully applied CET1 capital ratio of at least 13% and consistent with our objective of maintaining a post-stress fully applied CET1 capital ratio of at least 10%. Total capital returns will consist of an ordinary dividend, which we intend to grow steadily over time, and other forms of capital returns. For the financial year 2016, our Board of Directors intends to propose a dividend payment of CHF 0.60 per share, which is in line with the ordinary dividend paid for 2015, and which represents a payout ratio of 71%.

## Our priorities

### 1. Continue to execute our strategy and deliver on our performance targets

The strategic change we initiated in 2011 was driven by our decision to focus on our strengths and our anticipation of more demanding regulation. Having successfully completed our strategic transformation in 2014, we intend to continue building on our successful track record and to focus on disciplined execution to deliver on our performance targets.

### 2. Improve effectiveness and efficiency

Our effectiveness and efficiency programs focus on creating the right infrastructure and cost framework for the future, including optimizing our global workforce and footprint. Delivering on our cost savings target is critical to offsetting the escalating costs associated with regulatory change and to achieve our return objectives.

### 3. Invest for growth

We continue to upgrade and enhance our capabilities in technology and digitalization with a focus on innovation, better serving our clients and further strengthening our competitive position. We are also committed to investing in the development of our employees and attracting the best available talent.

## Our performance targets, expectations and ambitions

The tables below show our performance targets, expectations and ambitions for the Group and business divisions. They are calculated on an annual basis, and represent our objectives for sustainable business performance over the cycle. Our performance targets, expectations and ambitions are based on adjusted results and assume constant foreign currency translation rates.

→ **Refer to the "Group performance" section of this report for more information on adjusted results and adjusting items**

### Group

| | |
|---|---|
| Adjusted cost / income ratio | 60–70% |
| Adjusted return on tangible equity | >15% |
| Common equity tier 1 capital ratio (fully applied)[1] | At least 13%[2] |
| Risk-weighted assets (fully applied) | Expectation: around CHF 250 billion short / medium term[3] |
| Leverage ratio denominator (fully applied) | Expectation: around CHF 950 billion short / medium term[3] |
| Net cost reduction[4] | CHF 2.1 billion by end 2017 |

1 Based on the revised Swiss SRB capital framework that became effective on 1 July 2016. Refer to the "Capital management" section of this report for more information. 2 Our capital returns policy also includes our objective of maintaining a post-stress fully applied common equity tier 1 (CET1) capital ratio of at least 10%. 3 Based on the currently applicable rules. Refer to the "Capital management" section of this report for more information. Also reflects known FINMA multipliers and methodology changes for risk-weighted assets (RWA), and assumes normalized market conditions for both RWA and leverage ratio denominator (LRD). 4 Year-end 2017 exit rate compared with full-year 2013 adjusted operating expenses for Corporate Center and compared with full-year 2015 adjusted operating expenses for business divisions. Cost reductions exclude expenses for provisions for litigation, regulatory and similar matters, foreign currency movements and temporary regulatory program costs. Business division adjusted operating expenses are before allocations and exclude items that are not representative of the underlying net cost reduction performance, mainly related to variable compensation expenses and compensation for financial advisors in Wealth Management Americas.

### Business divisions

| | | | |
|---|---|---|---|
| Wealth Management | Net new money growth rate | 3–5% | Expectation: 10–15% annual adjusted pre-tax profit growth for combined businesses over the cycle |
| | Adjusted cost / income ratio | 55–65% | |
| Wealth Management Americas[1] | Net new money growth rate | 2–4% | |
| | Adjusted cost / income ratio | 75–85% | |
| Personal & Corporate Banking | Net new business volume growth rate | 1–4% (personal banking) | |
| | Net interest margin | 140–180 bps | |
| | Adjusted cost / income ratio | 50–60% | |
| Asset Management | Net new money growth rate | 3–5% excluding money market flows | |
| | Adjusted cost / income ratio | 60–70% | |
| | Adjusted annual pre-tax profit | Ambition: CHF 1 billion in the medium term | |
| Investment Bank | Adjusted annual pre-tax RoAE | >15%[2] | |
| | Adjusted cost / income ratio | 70–80% | |
| | Risk-weighted assets (fully applied) | Expectation: around CHF 85 billion short / medium term[3] | |
| | Leverage ratio denominator (fully applied) | Expectation: around CHF 325 billion short / medium term[3] | |

1 Based on US dollars. 2 Under the current capital regime. 3 Based on the currently applicable rules. Refer to the "Capital management" section of this report for more information. Also reflects known FINMA multipliers and methodology changes for RWA, and assumes normalized market conditions for both RWA and LRD. Including RWA and LRD directly associated with activity that Corporate Center – Group Asset and Liability Management manages centrally on the Investment Bank's behalf.

# Measurement of performance

## Performance measures

### Key performance indicators

The Group and business divisions are managed on the basis of a KPI framework, which identifies profit and growth financial measures, in the context of sound risk and capital management objectives. When determining variable compensation, both Group and business division KPIs are taken into account.

We review the KPI framework on a regular basis, considering our strategy and the market environment in which we operate.

KPIs are disclosed in our quarterly and annual reporting to allow comparison of our performance over the reporting periods. For certain KPIs we have performance targets in place, which are defined in order to measure our performance against our strategy. Our KPIs are designed to be assessed on an over-the-cycle basis and are subject to seasonal patterns.

→ **Refer to the "Our strategy" section of this report for more information on performance targets**

### Changes to our key performance indicators in 2017

We have fully aligned our performance targets and our KPI framework as of 1 January 2017, and as a result our "Cost reduction" target will be classified as a KPI for the Group as of 2017. Furthermore, to simplify the KPI framework, "Average value-at-risk (1-day, 95% confidence, 5 years of historical data)" for the Investment Bank will be reported as "Additional information" rather than as a KPI, and "Return on assets, gross (%)" for the Group and the Investment Bank will be removed from the KPI framework, as these will no longer be used as strategic steering metrics. In addition, the going concern leverage ratio will change from a phase-in to a fully applied basis.

## 2016 Group and business division key performance indicators

| Key performance indicators | Definition | Group | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank |
|---|---|---|---|---|---|---|---|
| Net profit growth (%) | Change in net profit attributable to shareholders from continuing operations between current and comparison periods / net profit attributable to shareholders from continuing operations of comparison period | ● | | | | | |
| Pre-tax profit growth (%) | Change in business division operating profit before tax between current and comparison periods / business division operating profit before tax of comparison period | | ● | ● | ● | ● | ● |
| Cost / income ratio (%) | Operating expenses / operating income before credit loss (expense) or recovery | ● | ● | ● | ● | ● | ● |
| Return on tangible equity (RoTE) (%) | Net profit attributable to shareholders before amortization and impairment of goodwill and intangible assets (annualized as applicable) / average equity attributable to shareholders less average goodwill and intangible assets | ● | | | | | |
| Return on attributed equity (RoAE) (%) | Business division operating profit before tax (annualized as applicable) / average attributed equity | | | | | | ● |
| Return on assets, gross (%)[1] | Operating income before credit loss (expense) or recovery (annualized as applicable) / average total assets | ● | | | | | ● |
| Going concern leverage ratio (phase-in, %)[1] | Total going concern capital / leverage ratio denominator | ● | | | | | |
| Common equity tier 1 capital ratio (fully applied, %) | Common equity tier 1 capital / risk-weighted assets | ● | | | | | |
| Net new money growth (%) | Net new money for the period (annualized as applicable) / invested assets at the beginning of the period. Group net new money growth is reported as net new money growth for combined wealth management businesses. Asset Management net new money excludes money market flows | ● | ● | ● | | ● | |
| Gross margin on invested assets (bps) | Operating income before credit loss (expense) or recovery (annualized as applicable) / average invested assets | | ● | ● | | ● | |
| Net margin on invested assets (bps) | Business division operating profit before tax (annualized as applicable) / average invested assets | | ● | ● | | ● | |
| Net new business volume growth for personal banking (%) | Net new business volume (i.e., total net inflows and outflows of client assets and loans) for the period (annualized as applicable) / business volume (i.e., total of client assets and loans) at the beginning of the period | | | | ● | | |
| Net interest margin (%) | Net interest income (annualized as applicable) / average loans | | | | ● | | |
| Average VaR (1-day, 95% confidence, 5 years of historical data)[1] | Value-at-risk (VaR) expresses maximum potential loss measured to a 95% confidence level, over a 1-day time horizon and based on five years of historical data | | | | | | ● |

1 Removed from the key performance indicator framework in 2017.

## New key performance indicators in 2017

| Key performance indicators | Definition | Group | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank |
|---|---|---|---|---|---|---|---|
| Cost reduction | Net exit rate cost reduction[1] | ● | | | | | |
| Going concern leverage ratio (fully applied, %) | Total going concern capital / leverage ratio denominator | ● | | | | | |

1 Exit rate compared with full-year 2013 adjusted operating expenses for Corporate Center and full-year 2015 adjusted operating expenses for business divisions. Cost reductions exclude expenses for provisions for litigation, regulatory and similar matters, foreign currency movements and temporary regulatory program costs. Business division adjusted operating expenses are before allocations and exclude items that are not representative of the underlying net cost reduction performance, mainly related to variable compensation expenses and compensation for financial advisors in Wealth Management Americas.

# Wealth Management

## Business

Wealth Management provides comprehensive advice and tailored financial services to wealthy private clients around the world, except those served by Wealth Management Americas. Our clients benefit from the full spectrum of resources that UBS as a global firm can offer, including banking and lending solutions, wealth planning, investment management solutions, and corporate finance advice. Our guided architecture model gives clients access to a wide range of products from the world's leading third-party institutions that complement our own products.

## Strategy and clients

We are the preeminent wealth manager for private clients outside the US, particularly in the ultra high net worth, high net worth and affluent segments. We generally define ultra high net worth clients as those with investable assets of more than CHF 50 million, and high net worth clients as those with investable assets of between CHF 2 million and CHF 50 million. Affluent clients are those with investable assets between CHF 250,000 and CHF 2 million.

We believe the wealth management business has attractive long-term growth prospects and expect its growth to outpace that of global gross domestic product. From a client segment perspective, we believe the global ultra high net worth market, including family offices, has the highest growth potential, followed by the high net worth and affluent markets. We seek to capitalize on our market-leading position in the ultra high net worth business and to increase our market share considerably in this segment. We also invest significantly in growing our high net worth and affluent businesses, especially by leveraging and further strengthening our leading competence in investment management, as well as by investing in our digital capabilities.

Investment management and portfolio construction are at the heart of our offering. We aspire to provide our clients a wider selection of discretionary and advisory services, helping them to more effectively achieve their goals. This in turn would further increase our mandate penetration and contribute to higher recurring revenues. Our integrated client service model allows us to bundle capabilities across the Group to identify investment opportunities in varying market conditions and create solutions that suit individual client needs. For example, ultra high net worth clients benefit from tailored institutional coverage and global execution provided by dedicated specialist teams from Wealth Management and the Investment Bank through the Global Family Office Group. Furthermore, we have enhanced our coverage and offering by establishing a global distribution management function and a dedicated global ultra high net worth organization.

We have unique scale, an industry-leading platform and are active in the most diverse wealth management markets and segments. Our booking centers across the globe give us a strong local presence that allows us to book client assets in multiple locations, in response to client preferences.

In Asia Pacific, we have accelerated our growth and expanded our onshore presence, with a particular focus on Hong Kong, Singapore and China, as well as on other major markets such as Japan and Taiwan, to capture long-term growth opportunities. In emerging markets, we continue to focus on markets such as Mexico, Brazil, Turkey, Russia, Israel and Saudi Arabia. We regularly assess our local presence to ensure proximity to our clients in key markets, as well as to make sure client needs for global diversification and local offerings are met.

In Europe, our long-established local presence in all major markets supports our growth ambition. We have combined our offshore and onshore businesses, creating economies of scale and enabling us to deal efficiently with increased regulatory and fiscal requirements. In December 2016, we established UBS Europe SE, an important step in simplifying our governance structure and in improving operational and capital efficiency across our European operations. UBS Europe SE was formed through the merger of UBS Deutschland AG and our Wealth Management subsidiaries in Germany, Italy, Luxembourg (including branches in other countries), the Netherlands and Spain. Further countries may be included in the future.

In Switzerland, Wealth Management collaborates closely with our colleagues in the personal and corporate banking, asset management and investment banking businesses. This creates opportunities to expand our business through client referrals and generates efficiencies by enabling us to use UBS's extensive branch network, which includes around 100 Wealth Management offices.

We offer extensive training to our client advisors, designed to enable the delivery of superior advice and solutions. All of our client advisors must obtain the Wealth Management Diploma, a program accredited by the Swiss Accreditation Service of the State Secretariat for Economic Affairs, which ensures a high level of knowledge and expertise. For our most senior client advisors, we offer extensive training through the Wealth Management Master program.

We are investing in digitalization and innovation to meet the evolving needs of our clients. The One Wealth Management Platform program is our signature business transformation strategy, through which we aim to deliver advisory, digital and back office capabilities to our clients around the world. We intend to standardize our operating model and deliver operating efficiencies across our global wealth management business. The program has already been rolled out in Switzerland and Germany and is currently being implemented in Hong Kong and Singapore. In addition, we are developing new solutions to deliver our services through digital channels. For example, in 2016, we launched UBS SmartWealth in the UK, which combines digital wealth management with UBS's market-leading expert insight, offering clients tailored investment advice based on their personal goals, and online access to their investments at any time.

We evaluate our performance against key performance indicators and our performance targets.

→ **Refer to the "Our strategy" section of this report for more information on our performance targets**

→ **Refer to the "Measurement of performance" section of this report for information on our key performance indicators**

## Products and services

Our approach focuses on gaining an understanding of our clients' financial objectives that enables us to provide proprietary and third-party solutions tailored to their individual needs. Clients benefit from a comprehensive set of capabilities and expertise, including planning, investing, lending, protection, philanthropy, corporate and banking services. Investment management capabilities are a core component of this value proposition.

Our Global Chief Investment Office, which serves both Wealth Management and Wealth Management Americas, synthesizes the research and expertise of UBS's global network of economists, strategists, analysts and investment specialists across all business divisions. These experts closely monitor and assess financial market developments and form a clear, concise and consistent investment view, known as the UBS House View.

The UBS House View identifies and communicates investment opportunities and market risks to help protect and grow our clients' wealth, which we apply to our clients' portfolios and asset allocations, underpinning the investment strategies for our flagship discretionary mandates. The strategic asset allocation is an essential part of our disciplined style of managing our clients' wealth and strives to ensure that our clients remain on course to meet their financial goals over the long term. It is complemented by our tactical asset allocation, which uses our global expertise to help our clients navigate markets and ultimately improve the risk and return trade-off potential of their portfolios.

Our Investment Products and Services unit ensures our solutions are in step with market conditions by aligning our discretionary and advisory offerings with the UBS House View. Clients can invest in a full range of financial instruments, from single securities, such as equities and bonds, to various investment funds, structured products and alternative investments. Additionally, we offer our clients advice on structured lending and corporate finance.

To help our clients address the challenges of an increasingly complex financial world, we continue to develop innovative products. In 2016, we rolled out expanded investment mandate solutions based on our Chief Investment Office's new asset allocation framework. These innovative investment solutions are designed to meet specific client needs and preferences beyond those addressed in our existing discretionary mandate offering. For example, our UBS Manage Advanced Systematic Asset Allocation mandate is a quantitatively driven investment concept that allows investors to participate fully in upward-trending equity markets and to reduce their exposure to equity risk in downward-trending and volatile equity markets.

By aggregating demand for private investments, we are able to offer our clients access to investment opportunities in the private markets space that are traditionally only available to institutional investors. In 2016, we expanded our private markets offering, most notably through a joint venture with Hamilton Lane, one of the largest independent alternative investment management firms globally.

We have also continued to invest significantly into our discretionary and advisory platform infrastructure, with a focus on customizing these offerings on a large scale and processing them more efficiently.

## Organizational structure

We are primarily organized along regional lines, with our business areas being Asia Pacific, Europe and Emerging Markets, Switzerland and Global Ultra High Net Worth.

We are governed by executive, risk and operating committees and operate mainly through UBS Switzerland AG and UBS AG branches. Headquartered in Switzerland, we have a presence in more than 40 countries with approximately 190 offices, of which around 100 are in Switzerland.

## Competitors

Our main global competitors include the private banking operations of BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, HSBC, JPMorgan Chase and Julius Baer. In the European domestic markets, we primarily compete with the local private banking operations of large banks such as Deutsche Bank in Germany, RBS in the UK and UniCredit in Italy. In Asia Pacific, the private banking franchises of Citigroup, Credit Suisse and HSBC are our main competitors.

# Wealth Management Americas

## Business

Wealth Management Americas provides advice-based solutions through financial advisors who deliver a fully integrated set of products and services specifically designed to address the needs of our clients. Our business is primarily domestic US but includes Canada and international business booked in the US. We believe we have attractive growth opportunities and a clear strategy focused on serving our target client segments, particularly the high and ultra high net worth segments.

## Strategy and clients

Wealth Management Americas is one of the leading wealth managers in the Americas in terms of financial advisor productivity and invested assets by financial advisor. We offer a fully integrated set of products and services to meet the needs of our high net worth and ultra high net worth client segments, while also serving the needs of core affluent clients. We define high net worth clients as those with investable assets of between USD 1 million and USD 10 million, and ultra high net worth clients as those with investable assets of more than USD 10 million. Core affluent clients are defined as those with investable assets of between USD 250,000 and USD 1 million. The Global Family Office – Americas, a joint venture between Wealth Management Americas and the Investment Bank, provides integrated, comprehensive wealth management and institutional-type services to select Family Office clients. Our Wealth Advice Center serves emerging affluent clients with investable assets of less than USD 250,000. We are committed to providing high-quality advice to our clients across all their financial needs by employing the best professionals in the industry, delivering the highest standard of execution and running a streamlined and efficient business.

We evaluate our performance against key performance indicators and our performance targets.

→ **Refer to the "Our strategy" section of this report for more information on our performance targets**

→ **Refer to the "Measurement of performance" section of this report for information on our key performance indicators**

We believe we are uniquely positioned to serve high net worth and ultra high net worth investors in the world's largest wealth market. With a network of over 7,000 financial advisors and USD 1 trillion in invested assets, we have a distinctive opportunity to "feel small and play big" by combining the agility of a boutique firm with all of the capabilities of a premier, truly global wealth manager. To accomplish that, in 2016 we introduced a new Wealth Management Americas operating model designed to move decision-making closer to clients, better leverage the capabilities that our unrivaled global footprint can offer, invest in next-generation technology and achieve long-term sustainable organic growth through an increased focus on retaining and developing our financial advisors. We aim to differentiate ourselves from competitors and be a trusted and leading provider of financial advice and solutions to our clients by enabling our financial advisors to leverage the full resources of UBS globally, including access to wealth management research, our global Chief Investment Office, and solutions from our other business divisions. These resources are augmented by our commitment to an open architecture platform and supported by our partnerships with many of the world's leading third-party institutions. Moreover, our wealth management offering includes banking, mortgage and financing solutions that enable us to provide advice on both the asset and liability sides of our clients' balance sheets.

We believe the long-term growth prospects of the wealth management business are attractive in the Americas, with high net worth and ultra high net worth expected to be the fastest-growing client segments in terms of invested assets in the region. We plan to grow our business by enabling our financial advisors to focus on delivering holistic advice across the full spectrum of client needs through continued expansion of our cross-business collaboration throughout the firm, and delivering banking and lending services that complement our wealth management solutions. We also plan to continue investing in platforms and technology, while remaining disciplined on cost. We expect these efforts to enable us to achieve higher levels of client satisfaction, strengthen our client relationships and lead to greater productivity across our financial advisors.

## Products and services

We offer clients a full array of solutions that focus on meeting their individual financial needs. Our financial advisors work closely with internal specialists to support evolving goals and expectations throughout the client life cycle, including comprehensive wealth planning and portfolio strategy and management. Our offering is designed to meet a wide variety of investment objectives, including wealth accumulation and preservation, income generation, portfolio diversification, legacy planning and philanthropy.

We offer products and solutions including equities, fixed income, retirement services, annuities, alternative investments, managed accounts and structured products. Wealth Management Americas' financial advisors are supported by a dedicated capital markets team collaborating with the Investment Bank and Asset Management in order to leverage the resources of the entire firm, as well as with third-party investment banks and asset management firms. To address the full range of our clients' financial needs, the Wealth Management Americas Banking Group offers competitive lending and cash management services, such as securities-backed lending, resource management accounts, Federal Deposit Insurance Corporation (FDIC)-insured deposits, mortgages and credit cards. Wealth Management Americas clients also benefit from our commitment to close collaboration with our Wealth Management business. Our integrated Wealth Management Research Americas and Global Chief Investment Office Wealth Management organizations together provide market analysis, economic outlooks and research guidance through a global lens and deliver them in our UBS House View to help support investment decisions.

For corporate and institutional clients, we offer a robust suite of solutions, including equity compensation, administration, investment consulting, defined benefit and contribution pension programs, and cash management services. For example, our UBS Equity Plan Advisory Services provides equity compensation plan services and advice to more than 180 US corporations, representing one million participants worldwide.

## Organizational structure

Our business is primarily domestic US but includes Canada and international business booked in the US.

In the US and Puerto Rico, we operate primarily through UBS Financial Services Inc. and UBS Financial Services Incorporated of Puerto Rico through 208 branches. Our banking services in the US include those conducted through UBS Bank USA, an FDIC-insured depository institution subsidiary, and branches of UBS AG. Canadian wealth management and banking operations are conducted through UBS Bank (Canada). We are governed by executive, risk and operating committees.

## Competitors

We compete with national full-service brokerage firms, domestic and global private banks, regional broker-dealers, independent broker-dealers, registered investment advisors, trust companies and other financial services firms offering wealth management services to US and Canadian private clients, as well as foreign non-resident clients seeking wealth management services within the US. Our main competitors include the wealth management businesses of Bank of America, Morgan Stanley and Wells Fargo.

# Personal & Corporate Banking

## Business

As the leading personal and corporate banking business in Switzerland, we provide comprehensive financial products and services to private, corporate and institutional clients in Switzerland. We are among the leading players in the private and corporate loan market in Switzerland, with a well-collateralized and conservatively managed lending portfolio.

Our business is a central element of UBS's universal bank delivery model in Switzerland. We work with the Group's wealth management, investment bank and asset management businesses to ensure that our clients receive the best products and solutions for their specific financial needs. We are also an important source of growth for our other business divisions in Switzerland through client referrals. In addition, we manage a substantial part of UBS's Swiss infrastructure and banking products platform, both of which are leveraged across the Group.

Our distribution model is based on a multi-channel strategy. With a steadily rising number of users and client interactions for our expanding electronic and mobile banking offering, we continue to strengthen our position as the leading multi-channel bank in Switzerland.

## Strategy and clients

Our strategy focuses on profitable and qualitative growth in Switzerland. We aim to provide stable and substantial profits for the Group and create revenue opportunities for other businesses within the firm.

In the personal banking business, we aspire to be the bank of choice for private clients in Switzerland. We continue to pursue our strategy of moderately and selectively growing our business in high-quality loans and to further leverage the potential of digitalization. Currently, we serve one in three Swiss households through our branch network, customer service centers and digital banking services. We are continuously expanding our multi-channel offering and continue to build on UBS's long tradition as a leader and innovator in digital services to deliver a superior client experience, capture market share and increase efficiency and customer loyalty.

In the corporate and institutional business, we want to be our clients' main bank. We aim to continuously improve our profitability and capital efficiency, striving to expand our market share in Switzerland with a focus on a qualitative growth strategy, centered on cash flow-based lending and our strategic advisory and trading business. Additionally, we are selectively expanding our international footprint to serve Swiss corporate clients abroad as well as global corporate clients headquartered in Switzerland.

Our clients value their relationship with us and our efforts to provide them with superior service. In 2016, for the sixth consecutive year, the international finance magazine *Euromoney* named UBS "Best Domestic Cash Manager Switzerland" based on a survey of cash managers and chief financial officers. Additionally, UBS was rated best asset servicing provider for asset managers and as the leading custodian bank in Switzerland and Europe, according to The R & M Survey, one of the industry's most important client surveys.

Constant employee development is a crucial element of our divisional strategy, as this is our key to ensuring superior client service. UBS sets the pace in client advisor certification, specifically with the implementation of its state-accredited ISO certification program.

Moreover, we continuously strive to simplify structures and processes in order to improve client experience without compromising our risk standards.

We evaluate our performance against key performance indicators and our performance targets.

→ **Refer to the "Our strategy" section of this report for information on our performance targets**

→ **Refer to the "Measurement of performance" section of this report for information on our key performance indicators**

## Products and services

Our private clients have access to a comprehensive life cycle based offering and convenient digital banking, targeting the specific needs of day-to-day banking, retirement and investment goals, and real estate transactions. In 2016, new services such as digital account opening and UBS Safe, where clients can securely store electronic files, were introduced.

Our corporate and institutional clients benefit from our financing and investment solutions, notably regarding access to equity and debt capital markets, syndicated and structured credit, private placements, leasing and traditional financing. Our transaction banking offers solutions for payment and cash management services, trade and export finance, receivable finance, as well as global custody solutions to institutional clients.

In 2016, we implemented a number of product and service innovations, such as the launch of UBS Atrium, an innovative platform in the real estate business, where UBS acts as an intermediary in the market, connecting clients and institutional investors. UBS's platform services focus on credit origination and servicing of brokered mortgages, thereby providing an attractive investment opportunity for institutional investors in a low-yield environment. Additionally, we enhanced our digital Asset Wizard, which gives clients comprehensive wealth oversight, including a new functionality that allows clients to create a wide range of reports tailored to their individual needs.

We collaborate closely with the Investment Bank to offer capital market and foreign exchange products, hedging strategies, trading capabilities, as well as corporate finance advice. Working with Asset Management, we also provide state-of-the-art fund and portfolio management solutions.

## Organizational structure

Our business is organized into Personal Banking, Wealth Management Switzerland and Corporate & Institutional Clients. The Swiss network includes over 300 branches, covering 10 geographical regions.

We are governed by executive, risk and operating committees and operate mainly through UBS Switzerland AG.

## Competitors

In the Swiss retail business, our competitors are Credit Suisse, PostFinance, Raiffeisen, the cantonal banks and other regional and local Swiss banks.

In the Swiss corporate and institutional business, our main competitors are Credit Suisse, the cantonal banks and globally active foreign banks in Switzerland.

# Asset Management

## Business

Asset Management provides investment management products and services, platform solutions and advisory support to institutions, wholesale intermediaries and wealth management clients around the world, with an onshore presence in 22 countries. We are a leading fund house in Europe, the largest mutual fund manager in Switzerland and one of the largest fund of hedge funds and real estate investment managers in the world. Our global investment capabilities include all major traditional and alternative asset classes.

## Strategy and clients

While market conditions and the low-yield environment in 2016 proved to be challenging for the industry, our global, diversified asset management business model continues to provide a solid foundation to capture growth opportunities in the shifting market dynamics.

The long-term outlook for the asset management industry remains positive, with three main drivers: (i) aging populations will lead to higher savings requirements; (ii) tighter government spending budgets will lead to increased private pension funding; and (iii) emerging regulation is creating opportunities for asset managers that have the necessary scale and expertise.

We have defined our current strategy with an overarching goal to deliver holistic investment and platform solutions to our clients, by leveraging our global reach and investment expertise.

Moreover, we are strengthening our institutional business and seeking to accelerate the growth of our wholesale business by building strategic partnerships, platforms and advisory support. This is a key area in which we intend to pursue growth in the coming years. Asset Management also continues to collaborate with the wealth management businesses to provide best-in-class products and services to meet private clients' needs.

We aim to drive profitable and sustainable growth in key markets in Europe, Switzerland, the Americas and Asia Pacific, including China, where we also continue to expand our long-standing onshore presence.

To support our efforts to achieve growth and increase our operational efficiency, we continue to invest in our operating platform and have made significant progress transforming our organization to create a less complex and unified global platform. We completed the sale of our Alternative Fund Services business in 2015, and announced an agreement in 2017 to sell our fund administration servicing units in Luxembourg and Switzerland to Northern Trust. The transaction is expected to close in the second half of the year, subject to relevant approvals and other customary conditions.

We continue to develop our well-established passive capabilities, including indexed strategies and exchange-traded funds (ETFs), where we are building on our strong position in Asia Pacific, Europe and Switzerland. We also continue to expand our world-class fund-of-hedge-fund business.

We evaluate our performance against key performance indicators and our performance targets.

→ **Refer to the "Our strategy" section of this report for more information on our performance targets**

→ **Refer to the "Measurement of performance" section of this report for information on our key performance indicators**

## Products and services

We offer clients a wide range of investment products and services in different asset classes, which can be delivered through segregated, pooled or advisory mandates as well as registered investment funds in various jurisdictions. Our active traditional and alternative capabilities are:

– *Equities* – investment strategies with varying risk and return objectives, including global, regional and thematic strategies, as well as a high alpha and growth and quantitative styles.
– *Multi Asset* – global and regional asset allocation and currency investment strategies across the risk / return spectrum.
– *O'Connor* – a global, relative value-focused, single-manager hedge fund platform providing investors with absolute and risk-adjusted returns.
– *Fixed Income* – global, regional and local market-based single-sector, multi-sector and extended-sector strategies, such as high-yield and emerging market debt, as well as unconstrained and currency strategies.
– *Global Real Estate* – global and regional strategies across the major real estate sectors, mainly focused on core and value added strategies and also including other strategies across the risk / return spectrum.
– *Infrastructure and Private Equity* – direct infrastructure investment in core infrastructure assets globally, and multi-manager infrastructure and private equity strategies in broadly diversified fund-of-funds portfolios.

Our *Solutions* business offers:

– Multi-manager hedge fund solutions and advisory services, providing exposure to hedge fund investments with tailored risk and return profiles.
– Customized multi-asset solutions and advisory services, including risk-managed and structured strategies, manager selection, pension risk management, risk advisory and global tactical asset allocation.

Our passive capabilities include indexed, alternative beta and rules-based strategies across equities, fixed income, commodities, real estate and alternatives with benchmarks ranging from mainstream to highly customized indices and rules-driven solutions. We offer our products in various structures, including ETFs, pooled funds, structured funds and mandates.

## Organizational structure

Our business is organized by the products and services we offer, with principal offices located in Chicago, Frankfurt, Hartford, Hong Kong, London, New York, Singapore, Sydney, Tokyo and Zurich. We are governed by executive, risk and operating committees.

As part of UBS's efforts to improve the resolvability of the Group, we have established UBS Asset Management AG, a subsidiary of UBS AG, to which we transferred the majority of Asset Management's operating subsidiaries during 2016, excluding subsidiaries domiciled in the US, which were transferred to UBS Americas Holdings LLC.

→ **Refer to the "The legal structure of UBS Group" section of this report for more information**

In 2017, we aligned our businesses to enable us to better leverage our best investment processes, tools and systems to generate high alpha, systematic products and solutions for clients. Our Equities, Fixed Income and Solutions capabilities and hedge funds business were integrated within a new area named Investments.

In addition, our Global Real Estate and Infrastructure and Private Equity businesses were also combined to form a new area named Real Estate & Private Markets. We will continue to grow this business by developing integrated and innovative solutions, as well as expanding in key markets, such as Brazil, Canada and Japan.

## Competitors

Our main competitors include global firms with wide-ranging capabilities and distribution channels, such as AllianceBernstein Investments, Amundi, BlackRock, Deutsche Bank Asset Management, Goldman Sachs Asset Management, Invesco, JPMorgan Chase Asset Management, Morgan Stanley Investment Management and Schroders.

# Investment Bank

## Business

The Investment Bank is present in over 35 countries, with principal offices in all major financial centers, providing investment advice, financial solutions and capital markets access. We serve corporate, institutional and wealth management clients across the globe and form a synergetic partnership with our wealth management, personal and corporate banking and asset management businesses.

The business division is organized into Corporate Client Solutions and Investor Client Services, and also includes UBS Securities Research. Our specialist teams work closely together, complementing our global product offering with their regional expertise. This enables us to understand our clients and provide services tailored to their investment and financing needs.

## Strategy and clients

We aspire to provide best-in-class services and solutions to our corporate, institutional and wealth management clients, through an integrated, solutions-led approach, driven by our intellectual capital and leveraging our award-winning electronic platforms. With our client-centric business model, we partner with our wealth management, personal and corporate banking and asset management businesses, and we believe we are well positioned to provide our clients with market insight, global coverage of markets and products, and execution services.

Our focus remains on our traditional strengths in advisory, capital markets, equities and foreign exchange businesses, complemented by a rates and credit platform, to deliver attractive and sustainable risk-adjusted returns. Using our powerful research and technology capabilities, we pioneer integrated solutions to support our clients as they adapt to evolving market structures, driven by changes to the regulatory, technological and economic landscape.

We continue to invest in talent and technology and to strengthen our operational risk framework. In 2016, we continued to implement our technology plan, aimed at enhancing the effectiveness of our platform for clients and simplifying our processes.

To support our goal of earning attractive returns on our allocated capital, we operate within a tightly controlled framework of balance sheet, risk-weighted assets and leverage ratio denominator. We evaluate our performance against key performance indicators and our performance targets.

→ **Refer to the "Our strategy" section of this report for more information on our performance targets and expectations**

→ **Refer to the "Measurement of performance" section of this report for information on our key performance indicators**

## Products and services

### Corporate Client Solutions

In Corporate Client Solutions, we advise our clients on strategic business opportunities and help them raise capital to fund their business activities. Together with Investor Client Services, we offer a full-service solution, which includes the distribution and risk management of capital markets products and financing solutions. Its main business lines are:

– *Advisory* consults clients on matters such as mergers and acquisitions, spin-offs, exchange offers, leveraged buyouts, joint ventures, exclusive sales, restructurings, takeover defense and corporate broking.
– *Equity Capital Markets* offers comprehensive equity capital-raising services, as well as related derivative products. This includes managing initial public offerings and private placements, as well as equity-linked transactions and other strategic equities solutions.
– *Debt Capital Markets* provides financing advice and helps clients raise various types of debt capital, as well as hedge resulting exposures.
– *Financing Solutions* provides customized solutions across asset classes via a wide range of financing capabilities, including structured financing, real estate finance and special situations.
– *Risk Management* includes corporate lending and associated hedging activities.

### Investor Client Services

In Investor Client Services, we enable our clients to buy and sell securities on capital markets across the globe and to manage their risk and liquidity. Its businesses are:

### *Equities*

As one of the world's largest equities houses and leading equity market participants in the primary and secondary markets, we distribute, structure, execute, finance and clear equity cash and derivative products. Our main business lines are:

- *Cash* offers trade execution and clearing for single stocks and portfolios through both traditional and electronic channels, along with investment advisory and consultancy services.
- *Derivatives* enables clients to manage risk and meet funding requirements through a wide range of listed and over-the-counter equity derivative instruments. We create and distribute structured products and notes, enabling our clients to optimize their investment returns.
- *Financing Services* provides our hedge fund and institutional clients with a fully integrated platform for financing transactions, which includes prime brokerage. In addition, we execute and clear exchange-traded equity derivatives in more than 45 markets globally.

### *Foreign Exchange, Rates and Credit*

Foreign Exchange, Rates and Credit provides execution services and solutions with an emphasis on electronic trading and maintains high levels of balance sheet velocity. The main business lines are:

- *Foreign Exchange* helps our clients manage their currency exposures and is recognized as one of the leading foreign exchange market-makers as well as the market leader in the precious metals business.
- *Rates and Credit* encompasses sales, trading and market-making in a selected range of rates and credit products. In addition, we work closely with Corporate Client Solutions, providing support to our debt capital markets businesses and tailoring customized financing solutions for our clients.

### UBS Securities Research

In UBS Securities Research, we offer clients key insights on securities in major financial markets around the globe. In our flagship Q series reports, experts from across the UBS research team respond to questions from clients, providing a coordinated perspective across regions, sectors and asset classes.

The UBS Evidence Lab is a team of experienced primary research experts and works closely with UBS Securities Research analysts to uncover new evidence that is not yet reflected in market prices.

## Organizational structure

Our business is organized along the aforementioned products and services and has a global reach.

We are governed by executive, risk and operating committees and operate through UBS AG branches and other subsidiaries of UBS Group. Securities activities in the US are conducted through UBS Securities LLC, a registered broker-dealer. In the UK, Investment Bank activities are conducted mainly out of UBS AG London branch and UBS Limited.

## Competitors

The main competitors are the major global investment banks, including Bank of America Merrill Lynch, Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, JPMorgan Chase and Morgan Stanley.

# Corporate Center

Corporate Center is comprised of the functions that provide services to the Group, which we present from a reporting perspective organized under Services and Group Asset and Liability Management (Group ALM). Corporate Center also includes the Non-core and Legacy Portfolio unit.

## Corporate Center – Services

Corporate Center – Services consists of the Group Chief Operating Officer area (Group Corporate Services, Group Operations, Group Sourcing, Group Technology), Group Finance (excluding Group ALM), Group Legal, Group Human Resources, Group Risk Control, Group Communications and Branding, Group Regulatory and Governance, and UBS and Society.

Corporate Center – Services allocates the majority of its operating expenses to the business divisions and other Corporate Center units based on service consumption. Each year, as part of the annual business planning cycle, Corporate Center – Services agrees with the business divisions and other Corporate Center units cost allocations for services at fixed amounts or at variable amounts based on fixed formulas, depending on capital and service consumption levels as well as the nature of the service performed. In 2015 and 2016, where costs incurred were different from those expected, Corporate Center – Services recognized over- and under-recoveries. In 2017, costs will be allocated to the business divisions and other Corporate Center units based on actual costs incurred by Corporate Center – Services.

Operating expenses remaining in Corporate Center – Services after allocations relate mainly to Group governance functions and other corporate activities, certain strategic and regulatory projects and certain retained restructuring expenses.

## Corporate Center – Group ALM

Group ALM manages the structural risks of our balance sheet, including interest rate risk in the banking book, currency risk and collateral risk, as well as the risks associated with the Group's liquidity and funding portfolios. Group ALM also seeks to optimize the Group's financial performance by better matching assets and liabilities within the context of the Group's liquidity, funding and capital targets. Group ALM serves all business divisions and other Corporate Center units through three main risk management areas, and its risk management is fully integrated into the Group's risk governance framework.

Business division-aligned risk management activities performed on behalf of business divisions and other Corporate Center units include managing the interest rate risk in the banking book on behalf of Wealth Management and Personal & Corporate Banking and high-quality liquid asset (HQLA) portfolios on behalf of specific business divisions. Beginning in the third quarter of 2016, the area also includes Risk Exposure Management, which performs risk management over credit, debit and funding valuation adjustments for our over-the-counter derivatives portfolio. Net income generated by these activities is fully allocated to the associated business divisions and Corporate Center units.

Capital investment and issuance activities consist of managing the Group's equity and capital instruments as well as instruments that contribute to our total loss-absorbing capacity (TLAC). Revenues from investing the Group's equity and the incremental expenses of issuing capital and TLAC instruments at the UBS Group AG level (the holding company for the UBS Group) relative to issuing senior debt out of operating subsidiaries are fully allocated to the business divisions and other Corporate Center units based on their attributed portion of the Group's equity.

Group structural risk management activities are performed to meet overall Group-wide risk management objectives. They include managing the Group's HQLA and long-term debt portfolios. The net positive or negative income generated through these activities is allocated to the business divisions and other Corporate Center units based on their consumption of the underlying risks. This consumption is determined by various liquidity and funding models and, to reduce volatility, is allocated using stable, internal benchmark rates rather than actual income earned by Group ALM. Net positive or negative income not arising as a result of business division consumption is retained by Group ALM.

As part of its risk management activities, Group ALM enters into derivative hedges to manage the economic and the interest rate risk of the different portfolios. The results of certain hedging activities, including any non-economic volatility caused by the applicable accounting treatment, are retained by Group ALM.

## Corporate Center – Non-core and Legacy Portfolio

Corporate Center – Non-core and Legacy Portfolio is comprised of the positions from businesses that were part of the Investment Bank prior to its restructuring, and is overseen by a committee chaired by the Group Chief Risk Officer.

Non-core and Legacy Portfolio pursues a primarily passive wind-down strategy, focusing on a disciplined reduction of risk-weighted assets, leverage ratio denominator and costs. Positions are managed and exited over time with the objective of maximizing shareholder value. Non-core and Legacy Portfolio also includes positions relating to legal matters arising from businesses that were transferred to it.

→ **Refer to "Note 20 Provisions and contingent liabilities" in the "Consolidated financial statements" section of this report for more information**

## Roles and responsibilities within Corporate Center – Services

| Functional head | Responsibilities |
|---|---|
| Group Chief Financial Officer[1] | – Is responsible for ensuring transparency in, and the assessment of, the financial performance of the Group and business divisions, and for the Group's financial accounting, controlling, forecasting, planning and reporting processes<br>– Is responsible for treasury and capital management, including management and control of funding and liquidity risk with independent oversight from the Group Chief Risk Officer, and for UBS's regulatory capital ratios<br>– Ensures asset and liability management by balancing consumption of the firm's financial resources through consolidation and management of the Group's structural risks enabling sustainable earnings generation<br>– Manages and controls the Group's tax affairs<br>– Manages the divisional and Group financial control functions<br>– Makes proposals to the Board of Directors (BoD) regarding the accounting standards adopted by the Group, and defines financial reporting and disclosure standards, after consultation with the Audit Committee of the BoD<br>– Provides external certifications under sections 302 and 404 of the Sarbanes-Oxley Act of 2002<br>– Coordinates the working relationship with external auditors under the supervision of the Audit Committee of the BoD<br>– Supports the Group Chief Executive Officer (CEO) in strategy development and key strategic topics<br>– Provides advice on financial aspects of strategic projects and transactions<br>– Manages relations with investors and analysts, in coordination with the Group CEO |
| Group Chief Operating Officer | – Provides quality, cost-effective and differentiating Group-wide IT services and tools in line with the needs of the business divisions and Corporate Center functions<br>– Delivers a wide range of operational services across all business divisions and regions<br>– Supplies real estate infrastructure and general administrative services, directs and controls all supply and demand management activities, supports the firm with its third-party sourcing strategies and takes responsibility for the firm's nearshore, offshore, outsourcing and supplier-related processes<br>– Formulates and agrees Group-wide operating strategies, objectives, and financial and execution plans for the Group Chief Operating Officer function in support of each business division and the Group functions<br>– Delivers cross-divisional operational initiatives to enhance the firm's operating platform |
| Group Chief Risk Officer | – Manages the divisional, regional and firm-wide risk control functions and monitors and challenges the firm's risk-taking activities<br>– Develops the Group's risk appetite framework, risk management and control principles, and risk policies<br>– In accordance with the risk appetite framework approved by the BoD, is responsible for:<br>(i) implementing appropriate independent control frameworks for the Group's credit, market, treasury, country, compliance and operational risks<br>(ii) developing and implementing the frameworks for risk measurement, aggregation, portfolio controls and, jointly with the Group Chief Financial Officer, for risk reporting<br>(iii) authorizing transactions, positions, exposures, portfolio limits, and credit risk provisions and allowances in accordance with the risk control authorities delegated to this role<br>– Maintains a control framework to ensure that UBS meets relevant regulatory and professional standards in the conduct of its business and coordinates in this respect with the Group General Counsel |
| Group General Counsel | – Is responsible for legal matters, policies and processes and for managing the Group's legal function<br>– Assumes responsibility for legal oversight in respect of the Group's key regulatory interactions and maintains relationships with our key regulators with respect to legal matters<br>– Reports legal risks and material litigation and manages litigation |
| Group Head Human Resources | – Defines and executes a human resources strategy aligned with UBS's objectives and positions the Group as an employer of choice<br>– Ensures cost-efficient operational and advisory services to employees as well as strategic advice to managers and executives, supporting them to attract, engage, develop and retain talent<br>– Maintains relationships with the Group's key regulators with respect to compensation matters |
| Group Head Communications and Branding | – Manages UBS's corporate and brand communication to its stakeholders in alignment with the Group's overall strategy<br>– Develops UBS's communications strategy, content and positioning with the primary purpose to build and protect the firm's reputation and brand<br>– Manages and coordinates Group-wide marketing communications activities, including partnership marketing and sponsorship measures<br>– Provides shared service delivery of Group-wide communication channels |
| Group Head Regulatory and Governance | – Develops governmental policy and regulatory strategy and coordinates key external relationships<br>– Manages the Strategic Regulatory Initiatives portfolio and oversees the planning and execution of relevant initiatives<br>– Establishes global and local resolution planning and develops key resolvability improvement measures<br>– Designs the Group's legal entity structure and further develops coherent corporate governance standards<br>– Governs the Group's investigation portfolio and performs important investigations |
| Head UBS and Society | – Coordinates the Group's corporate responsibility and sustainability strategy activities |

1 Relates to responsibilities for both Corporate Center – Services and Corporate Center – Group ALM.

## Priorities and initiatives

Our Corporate Center functions strive to provide best-in-class financial, risk, legal and shared services to the Group based on commercially sound service management principles, including transparency on both qualitative and quantitative components of the services offered. Moreover, we continue to focus on achieving greater effectiveness and efficiency through the strategic levers of workforce and footprint, organization and process optimization, and technology, and we remain fully committed to contributing to the Group's net cost reduction.

As of 31 December 2016, 31% of Corporate Center employees and contractors were in offshore or nearshore locations compared with 18% three years earlier. In addition to lower personnel expenses, this allows us to tap growing talent pools and realize efficiencies by reducing our footprint in high-cost real estate locations.

We seek to increase value by leveraging common capabilities and creating centralized functions. Within Group Technology, we continue to modernize our infrastructure and simplify our portfolio of applications. In 2016, we began the transfer of the majority of shared service functions to our separate Group service companies, which, in addition to meeting regulatory requirements, allows us to further strengthen our approach to service management without losing efficiency in the way we operate.

→ **Refer to the "Our strategy" section of this report for more information**

→ **Refer to the "The legal structure of UBS Group" section of this report for more information**

# Risk factors

Certain risks, including those described below, may affect our ability to execute our strategy or our business activities, financial condition, results of operations and prospects. Because a broad-based international financial services firm such as UBS is inherently exposed to multiple risks many of which become apparent only with the benefit of hindsight, risks of which we are not presently aware or which we currently do not consider to be material could also adversely affect us. The order of presentation of the risk factors below does not indicate the likelihood of their occurrence or the potential magnitude of their consequences.

## Continuing low or negative interest rates may have a detrimental effect on our capital strength, liquidity and funding position, and profitability

Low and negative interest rates in Switzerland and the eurozone negatively affected our net interest income in 2016 and a continuing low or negative interest rate environment may further erode interest margins and adversely affect the net interest income generated by our Personal & Corporate Banking and Wealth Management businesses. Our performance is also affected by the cost of maintaining the high-quality liquid assets required to cover regulatory outflow assumptions embedded in the liquidity coverage ratio (LCR). The Swiss National Bank permits Swiss banks to make deposits up to a threshold at zero interest. Any reduction in, or limitations on the use of this exemption from the otherwise applicable negative interest rates could exacerbate the effect of negative interest rates in Switzerland. Low and negative interest rates may also affect customer behavior and hence our overall balance sheet structure. Mitigating actions that we have taken, or may take in the future, such as the introduction of selective deposit fees or minimum lending rates, have resulted and may further result in the loss of customer deposits, a key source of our funding, net new money outflows and / or a declining market share in our domestic lending business.

Our equity and capital are also affected by changes in interest rates. In particular, the calculation of our pension plan net defined benefit assets and liabilities is sensitive to the discount rate applied. Any further reduction in interest rates would lower the discount rates and result in pension plan deficits due to the long duration of corresponding liabilities. This would lead to a corresponding reduction in our equity and fully applied common equity tier 1 (CET1) capital.

## Our global presence subjects us to risk from currency fluctuations

We prepare our consolidated financial statements in Swiss francs. However, a substantial portion of our assets, liabilities, invested assets, revenues and expenses, equity of foreign operations and risk-weighted assets (RWA) are denominated in US dollars, euros, British pounds and in other foreign currencies. Accordingly, changes in foreign exchange rates may adversely affect our profits, balance sheet, including deferred tax assets, and capital, leverage and liquidity ratios. In particular, the portion of our operating income denominated in non-Swiss franc currencies is greater than the portion of operating expenses denominated in non-Swiss franc currencies. Therefore, the appreciation of the Swiss franc against other currencies generally has an adverse effect on our profits, in the absence of any mitigating actions. Moreover, in order to hedge our CET1 capital ratio, CET1 capital needs to have foreign currency exposure, leading to currency sensitivity of CET1 capital. As a consequence, it is not possible to simultaneously fully hedge both the amount of capital and the capital ratio. As the proportion of RWA denominated in non-Swiss franc currencies outweighs the capital in these currencies, a significant appreciation of the Swiss franc against these currencies could benefit our capital ratios, while a significant depreciation of the Swiss franc against these currencies could adversely affect our capital ratios.

Swiss counterparties are, in general, highly reliant on the domestic economy and the economies to which they export, in particular the EU and the US. In addition, the EUR / CHF exchange rate is an important risk factor for Swiss corporates. The stronger Swiss franc may have a negative effect on the Swiss economy, particularly on exporters, which could adversely affect some of the counterparties within our domestic lending portfolio and lead to an increase in the level of credit loss expenses in future periods from the low levels recently observed.

## Regulatory and legal changes may adversely affect our business and our ability to execute our strategic plans

Fundamental changes in the laws and regulations affecting financial institutions can have a material and adverse effect on our business. In the wake of the 2007–2009 financial crisis and the subsequent instability in global financial markets, regulators and legislators are considering, have proposed or have adopted a wide range of changes to these laws and regulations. These measures are generally designed to address the perceived causes of the crisis and to limit the systemic risks posed by major financial institutions. They include:

- significantly higher regulatory capital requirements, including changes in the definition and calculation of regulatory capital as well as in the calculation of RWA;

- prudential adjustments to the valuation of assets at the discretion of regulators;
- introduction of a more demanding leverage ratio as well as new or significantly enhanced liquidity and stable funding requirements;
- requirements to maintain liquidity and capital in jurisdictions in which activities are conducted and booked, and requirements to adopt risk, corporate and other governance structures at a local jurisdiction or entity level;
- limitations on principal trading and other activities and limitations on risk concentrations and maximum levels of risk;
- new licensing, registration and compliance regimes, and cross-border market access restrictions;
- taxes and government levies that would effectively limit balance sheet growth or reduce the profitability of trading and other activities;
- a variety of measures constraining, taxing or imposing additional requirements relating to compensation;
- requirements to maintain loss-absorbing capital or debt instruments subject to write-down as part of recovery measures or a resolution of the Group or a Group company, including requirements for subsidiaries to maintain such instruments;
- requirements to adopt structural and other changes designed to reduce systemic risk and to make major financial institutions easier to manage, restructure, disassemble or liquidate, including ring-fencing certain activities and operations within separate legal entities, and adoption of new liquidation regimes intended to prioritize the preservation of systemically significant functions.

There remains significant uncertainty regarding a number of the measures referred to above, including whether, or the form in which, they will be adopted, the timing and content of implementing regulations and interpretations, and the dates of their effectiveness. There is also uncertainty as to whether the laws and regulations that have been adopted will be repealed or modified as a result of geopolitical developments, particularly in the US with its recent change in presidential administration.

Notwithstanding attempts by regulators to align their efforts, the measures adopted or proposed differ significantly across the major jurisdictions, making it increasingly difficult to manage a global institution like UBS. Swiss regulatory changes with regard to such matters as capital and liquidity have generally proceeded more quickly than those in other major jurisdictions, and the requirements for Swiss major international banks are among the strictest of the major financial centers. This could put Swiss banks, such as UBS, at a disadvantage when they compete with peer financial institutions subject to more lenient regulation or with unregulated non-bank competitors.

Planned and potential regulatory and legislative developments in Switzerland and in other jurisdictions in which we have operations may have a material adverse effect on our ability to execute our strategic plans, on the profitability or viability of certain business lines globally or in particular locations, and in some cases, on our ability to compete with other financial institutions, and may require us to increase prices for or cease to offer certain services and products. The developments have been and will likely continue to be costly to implement. They could also have a negative effect on our legal structure or business model, potentially generating capital, liquidity and other resource inefficiencies, all of which may adversely affect our profitability. Finally, the uncertainty related to, or the implementation of, legislative and regulatory changes may have a negative impact on our relationships with clients and our success in attracting client business.

*Capital and TBTF regulation:* As an internationally active Swiss systemically relevant bank (SRB), we are subject to capital and total loss-absorbing capacity (TLAC) requirements that are among the most stringent in the world. New Swiss SRB capital requirements impose significantly higher requirements based on RWA and a significantly higher leverage ratio requirement. In addition, a TLAC requirement has become applicable.

We may be subject to further increases in capital requirements in the future, from the imposition of further add-ons in the calculation of RWA or from other changes to other components of minimum capital requirements. The Basel Committee on Banking Supervision (BCBS) and other regulators are considering changes to the Basel III capital framework, including revisions related to the credit risk and operational risk frameworks, as well as the introduction of an output floor. If the proposed changes to the capital framework are adopted in their current form in Switzerland, we expect our overall RWA would significantly increase, absent any mitigating measures. We also expect that we would incur significant costs to implement the proposed changes.

*Liquidity and funding:* The requirements to maintain an LCR of high-quality liquid assets to estimated stressed short-term net cash outflows and a net stable funding ratio (NSFR), or other similar liquidity and funding requirements we are subject to, oblige us to maintain substantially higher levels of overall liquidity than was previously the case, may limit our efforts to optimize interest income and expense, make certain lines of business less attractive and reduce our overall ability to generate profits. Both the LCR and NSFR requirements are intended to ensure that we are not overly reliant on short-term funding and that we have sufficient long-term funding for illiquid assets, and the relevant calculations make assumptions about the relative likelihood and amount of outflows of funding and available sources of additional funding in a market- or firm-specific stress situation. There can be no assurance that in an actual stress situation our funding outflows would not exceed the assumed amounts. Moreover, many of our subsidiaries must comply with minimum capital, liquidity and similar requirements and as a result UBS Group AG and UBS AG have contributed a significant portion of their capital and provide substantial liquidity to them. These funds are available to meet funding and collateral needs in the relevant jurisdictions, but are generally not readily available for use by the Group as a whole.

*Banking structure and activity limitations*: We have undertaken and continue to undertake significant changes in our legal and operational structure to meet legal and regulatory requirements and expectations.

Changes to our legal and operational structure, particularly the transfer of operations to subsidiaries, require significant time and resources to implement and create operational, capital, liquidity, funding and tax inefficiencies. In addition, they may increase our aggregate credit exposure to counterparties as they transact with multiple entities within the UBS Group, expose our businesses to local capital, liquidity and funding requirements, and potentially give rise to client and counterparty concerns about the credit quality of individual subsidiaries. Such changes could also negatively affect our funding model, limit our operational flexibility and negatively affect our ability to benefit from synergies between business units.

In the US, we have incurred substantial costs for implementing a compliance and monitoring framework in connection with the Volcker Rule under the Dodd-Frank Act. We have also been required to modify our business activities both inside and outside the US to conform to its activity limitations. The Volcker Rule may also have a substantial impact on market liquidity and the economics of market-making activities. We may incur additional costs in the short term if aspects of the Volcker Rule are repealed or modified. We may become subject to other similar regulations substantively limiting the types of activities in which we may engage or the way we conduct our operations. If adopted as proposed, the rule on single counterparty risk proposed by the US Federal Reserve Board may affect how we conduct our operations in the US, including our use of other financial firms for payments and securities clearing services and as transactional counterparties.

*Resolvability and resolution and recovery planning:* Under the Swiss TBTF framework, and similar requirements in other jurisdictions, we are required to put in place viable emergency plans to preserve the operation of systemically important functions in the event of a failure, to the extent that such activities are not sufficiently separated in advance. If we adopt measures to reduce resolvability risk beyond what is legally required, we are eligible for a limited rebate on the gone concern requirements. Such actions include changes to the legal structure of a bank group, such as the creation of separate legal entities, in a manner that would insulate parts of the group to exposure from risks arising from other parts of the group, thereby making it easier to dispose of certain parts of the group in a recovery scenario, to liquidate or dispose of certain parts of the group in a resolution scenario or to execute a debt bail-in. Additionally, if a recovery or resolution plan that we are required to produce in a jurisdiction is determined by the relevant authority to be inadequate or not credible, relevant regulation may permit the authority to place limitations on the scope or size of our business in that jurisdiction, oblige us to hold higher amounts of capital or liquidity, or to change our legal structure or business in order to remove the relevant impediments to resolution.

The Swiss Banking Act and implementing ordinances provide FINMA with significant powers to intervene in order to prevent a failure of, or to resolve, a failing financial institution. FINMA has considerable discretion in determining whether, when, or in what manner to exercise such powers. In case of a threatened insolvency, FINMA may impose more onerous requirements on us, including restrictions on the payment of dividends and interest. FINMA could also require us, directly or indirectly, for example, to alter our legal structure, including by separating lines of business into dedicated entities, with limitations on intra-group funding and certain guarantees, or to further reduce business risk levels in some manner. FINMA also has the ability to write down or convert into common equity the capital instruments and other liabilities of UBS Group AG, UBS AG and UBS Switzerland AG in connection with a resolution. Refer to "*If we experience financial difficulties, FINMA has the power to open resolution or liquidation proceedings or impose protective measures in relation to UBS Group AG, UBS AG or UBS Switzerland AG, and such proceedings or measures may have a material adverse effect on our shareholders and creditors*" below.

*Market regulation:* The implementation by the G20 countries of the commitment to require all standardized OTC derivative contracts to be traded on exchanges or trading facilities and cleared through central counterparties has had and will continue to have a significant effect on our OTC derivatives business, which is conducted primarily in the Investment Bank. These market changes are likely to reduce the revenue potential of certain lines of business for market participants generally, and we may be adversely affected. For example, we expect that, as a rule, the shift of OTC derivatives trading to a central clearing model will tend to reduce profit margins in these products. Also, these laws may have a material impact on the market infrastructure that we use, available platforms, collateral management and the way we interact with clients, and may cause us to incur material implementation costs. Margin requirements for non-cleared OTC derivatives will require significant changes to collateral agreements with counterparties and our clients' operational processes. In some jurisdictions implementation is ongoing, while rule-making and implementation are delayed in others. This may result in market dislocation, disruption of cross-border trading, and concentration of counterparty trading. It also affects our ability to implement the required changes and may limit our ability to transact with clients.

Some of the regulations applicable to UBS AG as a registered swap dealer with the Commodity Futures Trading Commission (CFTC) in the US, and certain regulations that will be applicable when UBS AG registers as a security-based swap dealer with the SEC, apply to UBS AG globally, including those relating to swap data reporting, recordkeeping, compliance and supervision. As a result, in some cases US rules will likely duplicate or conflict with legal requirements applicable to us elsewhere, including in Switzerland, and may place us at a competitive disadvantage to firms that are not required to register in the US with the SEC or CFTC.

In many instances, we provide services on a cross-border basis, and we are therefore sensitive to barriers restricting market access for third-country firms. In particular, efforts in the EU to harmonize the regime for third-country firms to access the European market may have the effect of creating new barriers that adversely affect our ability to conduct business in these jurisdictions from Switzerland. In addition, a number of jurisdictions are increasingly regulating cross-border activities based on determinations of equivalence of home country regulation, substituted compliance or similar principles of comity. A negative determination could limit our access to the market in those jurisdictions and may negatively influence our ability to act as a global firm. In addition, as such determinations are typically applied on a jurisdictional level rather than on an entity level, we will generally need to rely on jurisdictions' willingness to collaborate.

→ **Refer to the "Regulation and supervision" and "Regulatory and legal developments" sections of this report for more information**

## If we are unable to maintain our capital strength, this may adversely affect our ability to execute our strategy, client franchise and competitive position

Maintaining our capital strength is a key component of our strategy. It enables us to support the growth of our businesses as well as to meet potential regulatory changes in capital requirements. It provides comfort to our stakeholders, forms the basis for our capital return policy, and contributes to our credit ratings. Our capital ratios are determined primarily by RWA, eligible capital and leverage ratio denominator (LRD), all of which may fluctuate based on a number of factors, some of which are outside our control.

Our eligible capital may be reduced by losses recognized within net profit or other comprehensive income. Eligible capital may also be reduced for other reasons, including certain reductions in the ratings of securitization exposures, acquisitions and divestments changing the level of goodwill, adverse currency movements affecting the value of equity, prudential adjustments that may be required due to the valuation uncertainty associated with certain types of positions, and changes in the value of certain pension fund assets and liabilities or in the interest rate and other assumptions used to calculate the changes in our net defined benefit obligation recognized in other comprehensive income.

RWA are driven by our business activities, by changes in the risk profile of our exposures, changes in our foreign currency exposures and foreign exchange rates and by regulation. For instance, substantial market volatility, a widening of credit spreads, which is a major driver of our value-at-risk, adverse currency movements, increased counterparty risk, deterioration in the economic environment, or increased operational risk could result in a rise in RWA. We have significantly reduced our market risk and credit risk RWA in recent years. However, increases in operational risk RWA, particularly those arising from litigation, regulatory and similar matters, and regulatory changes in the calculation of RWA and regulatory add-ons to RWA have offset a substantial portion of this reduction. Changes in the calculation of RWA, or, as discussed above, the imposition of additional supplemental RWA charges or multipliers applied to certain exposures, or the imposition of an RWA floor based on the standardized approach or other methodology changes could substantially increase our RWA. In addition, we may not be successful in our plans to further reduce RWA, either because we are unable to carry out fully the actions we have planned or because other business or regulatory developments or actions counteract the effects of our actions.

We are also subject to significantly higher leverage ratio-based capital and TLAC requirements under the revised Swiss Capital Adequacy Ordinance. The leverage ratio is a simple balance sheet measure and therefore limits balance sheet-intensive activities, such as lending, more than activities that are less balance sheet intensive, and it may constrain our business activities even if we satisfy other risk-based capital requirements. Our leverage ratio denominator is driven by, among other things, the level of client activity, including deposits and loans, foreign exchange rates, interest rates and other market factors. Many of these factors are wholly or partially outside our control.

→ **Refer to the "Regulatory and legal developments" section of this report for more information**

## We may not be successful in the ongoing execution of our strategic plans

In October 2012, we announced a significant acceleration in the implementation of our strategy. The strategy included transforming our Investment Bank to focus it on its traditional strengths, very significantly reducing RWA and further strengthening our capital position, and significantly reducing costs and improving efficiency. We also set targets and expectations for our performance. We have substantially completed the transformation of our business. However, the risk remains that we may not succeed in executing the rest of our plans, or may need to delay them, that market events or other factors may adversely affect their implementation or that their effects may differ from those intended. Macroeconomic conditions, geopolitical uncertainty, the changes to the Swiss TBTF framework and the continuing costs of meeting new regulatory requirements have prompted us to adapt our targets and expectations in the past and we may need to do so again in the future.

We have substantially reduced the RWA and LRD usage of our Corporate Center – Non-core and Legacy Portfolio positions, but there is no assurance that we will continue to be able to exit the remaining positions as quickly as our plans suggest or that we will not incur significant losses in doing so. The continued illiquidity and complexity of many of our legacy risk positions in particular could make it difficult to sell or otherwise exit these positions and reduce the RWA and LRD usage associated with these exposures.

As part of our strategy, we also have a program underway to achieve significant incremental cost reductions, but a number of factors could negatively affect our plans. Higher permanent regulatory costs and business demand than we had originally anticipated have partly offset our gross cost reductions and delayed the achievement of cost reduction targets in the past, and we could continue to be challenged in the execution of our ongoing plans. Moreover, as is often the case with major effectiveness and efficiency programs, cost reduction plans involve significant risks, including that restructuring costs may be higher and may be recognized sooner than projected, that we may not be able to identify feasible cost reduction opportunities that are also consistent with our business goals, and that cost reductions may be realized later or may be less than we anticipate. Changes in our workforce as a result of outsourcing, nearshoring or offshoring or staff reductions may introduce new operational risks that, if not effectively addressed could affect our ability to recognize the desired cost and other benefits from such changes or could result in operational losses. Such changes can also lead to expenses recognized in the income statement well in advance of the cost savings intended to be achieved through such workforce strategy, for example, if provisions for real estate lease contracts need to be recognized or when, in connection with the closure or disposal of non-profitable operations, foreign currency translation losses previously recorded in other comprehensive income are reclassified to the income statement.

As we implement our effectiveness and efficiency programs, we may also experience unintended consequences, such as the loss or degradation of capabilities that we need in order to maintain our competitive position, achieve our targeted returns or meet existing or new regulatory requirements and expectations.

## Material legal and regulatory risks arise in the conduct of our business

As a global financial services firm operating in more than 50 countries, we are subject to many different legal, tax and regulatory regimes and we are subject to extensive regulatory oversight and exposed to significant liability risk. We are subject to a large number of claims, disputes, legal proceedings and government investigations, and we expect that our ongoing business activities will continue to give rise to such matters in the future. The extent of our financial exposure to these and other matters is material and could substantially exceed the level of provisions that we have established. We are not able to predict the financial and non-financial consequences these matters may have when resolved. Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate our participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for us.

Our settlements with governmental authorities in connection with foreign exchange, LIBOR and benchmark interest rates starkly illustrate the significantly increased level of financial and reputational risk now associated with regulatory matters in major jurisdictions. In December 2012, we announced settlements totaling approximately CHF 1.4 billion in fines by and disgorgements to US, UK and Swiss authorities. We entered into a non-prosecution agreement (NPA) with the US Department of Justice (DOJ), and UBS Securities Japan Co. Ltd. pleaded guilty to one count of wire fraud relating to the manipulation of certain benchmark interest rates. In May 2015, the DOJ exercised its discretion to terminate the NPA based on its determination that certain UBS employees had committed a US crime related to foreign exchange matters. As a consequence, UBS AG has pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, and paid a USD 203 million fine and is subject to a three-year term of probation. The very large fines and disgorgement amounts were assessed against us, and we were required to enter guilty pleas, despite our full cooperation with the authorities in the investigations, and despite our receipt of conditional leniency or conditional immunity from antitrust authorities in a number of jurisdictions, including the US and Switzerland. We understand that, in determining the consequences for us, the authorities considered the fact that it had in the recent past been determined that we had engaged in serious misconduct in several other matters.

Ever since our material losses arising from the 2007 – 2009 financial crisis, we have been subject to a very high level of regulatory scrutiny and to certain regulatory measures that constrain our strategic flexibility. While we believe that we have remediated the deficiencies that led to those losses as well as to the unauthorized trading incident announced in September 2011, the effects on our reputation and relationships with regulatory authorities of the LIBOR-related settlements of 2012 and settlements with some regulators of matters related to our foreign exchange and precious metals business, have proven to be more difficult to overcome. We are in active dialog with our regulators concerning the actions that we are taking to improve our operational risk management and control framework, but there can be no assurance that our efforts will have the desired effects. As a result of this history, our level of risk with respect to regulatory enforcement may be greater than that of some of our peers.

→ **Refer to “Note 20 Provisions and contingent liabilities” in the “Consolidated financial statements” section of this report for more information**

## Operational risks affect our business

Our businesses depend on our ability to process a large number of transactions, many of which are complex, across multiple and diverse markets in different currencies, to comply with requirements of many different legal and regulatory regimes to which we are subject and to prevent, or promptly detect and stop, unauthorized, fictitious or fraudulent transactions. We also rely on access to, and on the functioning of, systems maintained by third parties, including clearing systems, exchanges, information processors and central counterparties. Failure of our or third-party systems could have an adverse effect on us. Our operational risk management and control systems and processes are designed to help ensure that the risks associated with our activities, including those arising from process error, failed execution, misconduct, unauthorized trading, fraud, system failures, financial crime, cyberattacks, breaches of information security and failure of security and physical protection, are appropriately controlled. If our internal controls fail or prove ineffective in identifying and remedying these risks, we could suffer operational failures that might result in material losses, such as the loss from the unauthorized trading incident announced in September 2011.

We and other financial services firms have been subject to breaches of security and to cyber and other forms of attack, some of which are sophisticated and targeted attacks intended to gain access to confidential information or systems, disrupt service or destroy data. It is possible that we may not be able to anticipate, detect or recognize threats to our systems or data or that our preventative measures will not be effective to prevent an attack or a security breach. A successful breach or circumvention of security of our systems or data could have significant negative consequences for us, including disruption of our operations, misappropriation of confidential information concerning us or our customers, damage to our systems, financial losses for us or our customers, violations of data privacy and similar laws, litigation exposure and damage to our reputation.

A major focus of US and other countries' governmental policies relating to financial institutions in recent years has been fighting money laundering and terrorist financing. We are required to maintain effective policies, procedures and controls to detect, prevent and report money laundering and terrorist financing, and to verify the identity of our clients. We are also subject to laws and regulations related to corrupt and illegal payments to government officials by others, such as the US Foreign Corrupt Practices Act and the UK Bribery Act. We have implemented policies, procedures and internal controls that are designed to comply with such laws and regulations. Failure to maintain and implement adequate programs to combat money laundering, terrorist financing or corruption, or any failure of our programs in these areas, could have serious consequences both from legal enforcement action and from damage to our reputation.

As a result of new and changed regulatory requirements and the changes we have made in our legal structure to meet regulatory requirements and improve our resolvability, the volume, frequency and complexity of our regulatory and other reporting has significantly increased. Regulators have also significantly increased expectations for our internal reporting and data aggregation. We have incurred and continue to incur significant costs to implement infrastructure to meet these requirements. Failure to timely and accurately meet external reporting requirements or to meet regulatory expectations for internal reporting could result in enforcement action or other adverse consequences for us.

Certain types of operational control weaknesses and failures could also adversely affect our ability to prepare and publish accurate and timely financial reports. Following the unauthorized trading incident announced in September 2011, management determined that we had a material weakness in our internal control over financial reporting as of the end of 2010 and 2011, although this did not affect the reliability of our financial statements for either year.

In addition, despite the contingency plans we have in place, our ability to conduct business may be adversely affected by a disruption in the infrastructure that supports our businesses and the communities in which we are located. This may include a disruption due to natural disasters, pandemics, civil unrest, war or terrorism and involve electrical, communications, transportation or other services used by us or third parties with whom we conduct business.

## Our reputation is critical to the success of our business

Our reputation is critical to the success of our strategic plans, business and prospects. Reputational damage is difficult to reverse, and improvements tend to be slow and difficult to measure. Our very large losses during the financial crisis, the investigations into our cross-border private banking services to US private clients and the settlements entered into with US authorities with respect to this matter, and other events seriously damaged our reputation. Reputational damage was an important factor in our loss of clients and client assets across our asset-gathering businesses, and contributed to our loss of, and difficulty in attracting, staff in 2008 and 2009. These developments had short-term and also more lasting adverse effects on our financial performance, and we recognized that restoring our reputation would be essential to maintaining our relationships with clients, investors, regulators and the general public, as well as with our employees. The unauthorized trading incident announced in September 2011 and our involvement in the LIBOR matter and investigations relating to our foreign exchange and precious metals business have also adversely affected our reputation. Any further reputational damage could have a material adverse effect on our operational results and financial condition and on our ability to achieve our strategic goals and financial targets.

## Performance in the financial services industry is affected by market conditions and the macroeconomic climate

Our businesses are materially affected by market and economic conditions. Adverse changes in interest rates, credit spreads, securities' prices, market volatility and liquidity, foreign exchange rates, commodity prices, and other market fluctuations, as well as changes in investor sentiment, can affect our earnings and ultimately our financial and capital positions.

A market downturn and weak macroeconomic conditions can be precipitated by a number of factors, including geopolitical events, changes in monetary or fiscal policy, trade imbalances, natural disasters, pandemics, civil unrest, acts of violence, war or terrorism. Macroeconomic and political developments can have unpredictable and destabilizing effects and, because financial markets are global and highly interconnected, even local and regional events can have widespread impact well beyond the countries in which they occur. We are closely monitoring developments in Europe following the UK referendum on EU membership, with potential adverse consequences for the UK economy and for the recovery of a weak EU economy. Moreover, if individual countries impose restrictions on cross-border payments or other exchange or capital controls, or change their currency (for example, if one or more countries should leave the eurozone), we could suffer losses from enforced default by counterparties, be unable to access our own assets, and / or be impeded in, or prevented from, managing our risks.

We could be materially affected if a crisis develops, regionally or globally, as a result of disruptions in emerging markets or developed markets that are susceptible to macroeconomic and political developments, or as a result of the failure of a major market participant. Our strategic plans depend more heavily on our ability to generate growth and revenue in emerging markets, including China, causing us to be more exposed to the risks associated with such markets. The binding scenario we use in our combined stress test framework reflects these aspects, and assumes a hard landing in China leading to severe contagion of Asian and emerging markets economies and at the same time multiple debt restructurings in Europe, related direct losses for European banks and fear of a eurozone breakup severely affecting developed markets such as Switzerland, the UK and the US.

→ **Refer to the "Risk measurement" section of this report for more information on our stress testing framework**

We have material exposures to a number of markets, and the regional balance of our business mix also exposes us to risk. Our Investment Bank's Equities business, for example, is more heavily weighted to Europe and Asia, and within this business our derivatives business is more heavily weighted to structured products for wealth management clients, in particular with European and Asian underlyings. Turbulence in these markets can therefore affect us more than other financial service providers.

A decrease in business and client activity and market volumes, for example, as a result of significant market volatility, adversely affects transaction fees, commissions and margins, particularly in our wealth management businesses and in the Investment Bank, as we experienced in 2016. A market downturn is likely to reduce the volume and valuations of assets that we manage on behalf of clients, reducing our asset and performance-based fees, and could also cause a decline in the value of assets that we own and account for as investments or trading positions. On the other hand, reduced market liquidity or volatility limit trading opportunities and impede our ability to manage risks, impacting both trading income and performance-based fees.

Credit risk is an integral part of many of our activities, including lending, underwriting and derivatives activities. Worsening economic conditions and adverse market developments could lead to impairments and defaults on credit exposures and on our trading and investment positions. Losses may be exacerbated by declines in the value of collateral we hold. We are exposed to credit risk in activities, such as our prime brokerage, reverse repurchase and Lombard lending, as the value or liquidity of the assets against which we provide financing may decline rapidly. Macroeconomic developments, such as the continuing strength of the Swiss franc and its effect on Swiss exports, the adoption of negative interest rates by the Swiss National Bank or other central banks or any return of crisis conditions within the eurozone or the EU, and the potential implications of the decision in Switzerland to reinstate immigration quotas for EU and European Economic Area citizens, could also adversely affect the Swiss economy, our business in Switzerland in general and, in particular, our Swiss mortgage and corporate loan portfolios.

The aforementioned developments have in the past affected, and could materially affect, the financial performance of business divisions and of UBS as a whole, including through impairment of goodwill and the adjustment of deferred tax asset levels.

## UK referendum on EU membership

Following the outcome of the June 2016 referendum on the UK's membership in the EU, the UK government has stated that it intends to invoke Article 50 of the Treaty on European Union by no later than the end of March 2017. This will trigger a two-year period during which the UK will negotiate its withdrawal agreement with the EU. Barring any changes to this time schedule, the UK is expected to leave the EU in early 2019. The nature of the UK's future relationship with the EU remains unclear. Any future limitations on providing financial services into the EU from our UK operations could require us to make potentially significant changes to our operations in the UK and our legal structure. We are evaluating the potential effects of a UK exit from the EU and potential mitigating actions, although the effects and actions may vary considerably depending on the timing of withdrawal and the nature of any transition or successor agreements with the EU.

**We may not be successful in implementing changes in our wealth management businesses to meet changing market, regulatory and other conditions**

Our wealth and asset management businesses operate in an environment of increasing regulatory scrutiny and changing standards also with respect to fiduciary and other standards of care and the focus on mitigating or eliminating conflicts of interest between a manager or advisor and the client, which require effective implementation across the global systems and processes of investment managers and other industry participants. For example, the US Department of Labor has adopted a rule expanding the definition of "fiduciary" under the Employee Retirement Income Security Act (ERISA), which will require us to comply with fiduciary standards under ERISA when dealing with certain retirement plans. We will likely be required to materially change business processes, policies and the terms on which we interact with these clients in order to comply with these rules if and when they become effective.

We are exposed to possible outflows of client assets in our asset-gathering businesses and to changes affecting the profitability of our wealth management businesses and we may not be successful in implementing the business changes needed to address them.

We experienced substantial net outflows of client assets in our wealth management and asset management businesses in 2008 and 2009. The net outflows resulted from a number of different factors, including our substantial losses, damage to our reputation, the loss of client advisors, difficulty in recruiting qualified client advisors and tax, legal and regulatory developments concerning our cross-border private banking business. Many of these factors have been successfully addressed. However, long-term changes affecting the cross-border private banking business model will continue to affect client flows in the wealth management businesses for an extended period of time.

We have experienced cross-border outflows over a number of years as a result of heightened focus by fiscal authorities on cross-border investment and fiscal amnesty programs, in anticipation of the implementation in Switzerland of the global automatic exchange of tax information, and as a result of the measures we have implemented in response to these changes. Further changes in local tax laws or regulations and their enforcement, the implementation of cross-border tax information exchange regimes, national tax amnesty or enforcement programs or similar actions may affect our clients' ability or willingness to do business with us and result in additional cross-border outflows.

In recent years, our Wealth Management net new money inflows have come predominantly from clients in Asia Pacific and in the ultra high net worth segment globally. Over time, inflows from these lower-margin segments and markets have been replacing outflows from higher-margin segments and markets, in particular cross-border clients. This dynamic, combined with changes in client product preferences as a result of which low-margin products account for a larger share of our revenues than in the past, has put downward pressure on our Wealth Management's margins.

Initiatives that we may implement to overcome the effects of changes in the business environment on our profitability, balance sheet and capital positions give no assurance that we will be able to counteract those effects and may cause net new money outflows and reductions in client deposits, as happened with our balance sheet and capital optimization program in 2015. In addition, we have made changes to our business offerings and pricing practices in line with the Swiss Supreme Court case concerning retrocessions and other industry developments. These changes may adversely affect our margins on these products, and our current offering may be less attractive to clients than the products it replaces. There is no assurance that we will be successful in our efforts to offset the adverse effect of these or similar trends and developments.

**We may be unable to identify or capture revenue or competitive opportunities, or retain and attract qualified employees**

The financial services industry is characterized by intense competition, continuous innovation, restrictive, detailed, and sometimes fragmented, regulation and ongoing consolidation. We face competition at the level of local markets and individual business lines, and from global financial institutions that are comparable to us in their size and breadth. Barriers to entry in individual markets and pricing levels are being eroded by new technology. We expect these trends to continue and competition to increase. Our competitive strength and market position could be eroded if we are unable to identify market trends and developments, do not respond to them by devising and implementing adequate business strategies, adequately developing or updating our technology, particularly in trading businesses, and our digital channels and tools, or are unable to attract or retain the qualified people needed to carry them out.

The amount and structure of our employee compensation is affected not only by our business results but also by competitive factors and regulatory considerations.

In recent years, in response to the demands of various stakeholders, including regulatory authorities and shareholders, and in order to better align the interests of our staff with those of other stakeholders, we have made changes to the terms of compensation awards. Among other things, we have introduced individual caps on the proportion of fixed to variable pay for the GEB members, as well as certain other employees. We have increased average deferral periods for stock awards, expanded forfeiture provisions, and, to a more limited extent, introduced claw-back provisions for certain awards linked to business performance.

Constraints on the amount or structure of employee compensation, higher levels of deferral, performance conditions and other circumstances triggering the forfeiture of unvested awards may adversely affect our ability to retain and attract key employees. The loss of key staff and the inability to attract qualified replacements, depending on which and how many roles are affected, could seriously compromise our ability to execute our strategy and to successfully improve our operating and control environment and may affect our business performance.

## We depend on our risk management and control processes to avoid or limit potential losses in our businesses

Controlled risk-taking is a major part of the business of a financial services firm. Some losses from risk-taking activities are inevitable, but to be successful over time, we must balance the risks we take against the returns we generate. We must, therefore, diligently identify, assess, manage and control our risks, not only in normal market conditions but also as they might develop under more extreme, stressed conditions, when concentrations of exposures can lead to severe losses.

As seen during the financial crisis of 2007–2009, we are not always able to prevent serious losses arising from extreme or sudden market events that are not anticipated by our risk measures and systems. The deterioration of financial markets since the beginning of the crisis was extremely severe by historical standards. Value-at-risk, a statistical measure for market risk, is derived from historical market data, and thus by definition could not have anticipated the losses suffered in the stressed conditions of the crisis. Moreover, stress loss and concentration controls and the dimensions in which we aggregated risk to identify potentially highly correlated exposures proved to be inadequate. As a result, we recorded substantial losses on fixed income trading positions, particularly in 2008 and 2009. Notwithstanding the steps we have taken to strengthen our risk management and control framework, we could suffer further losses in the future if, for example:

- we do not fully identify the risks in our portfolio, in particular risk concentrations and correlated risks;
- our assessment of the risks identified or our response to negative trends proves to be untimely, inadequate, insufficient or incorrect;
- markets move in ways that we do not expect – in terms of their speed, direction, severity or correlation – and our ability to manage risks in the resulting environment is, therefore, affected;
- third parties to whom we have credit exposure or whose securities we hold for our own account are severely affected by events not anticipated by our models, and accordingly we suffer defaults and impairments beyond the level implied by our risk assessment; or
- collateral or other security provided by our counterparties proves inadequate to cover their obligations at the time of their default.

We hold positions related to real estate in various countries, and could suffer losses on these positions. These positions include a substantial Swiss mortgage portfolio. Although management believes that this portfolio is prudently managed, we could nevertheless be exposed to losses if the concerns expressed by the Swiss National Bank and others about unsustainable price escalation in the Swiss real estate market come to fruition. In addition, we continue to hold substantial legacy risk positions, primarily in Corporate Center – Non-core and Legacy Portfolio. They remain illiquid in many cases, and we continue to be exposed to the risk that they may again deteriorate in value.

We also manage risk on behalf of our clients in our asset and wealth management businesses. The performance of assets we hold for our clients in these activities could be adversely affected by the same factors mentioned above. If clients suffer losses or the performance of their assets held with us is not in line with relevant benchmarks against which clients assess investment performance, we may suffer reduced fee income and a decline in assets under management, or withdrawal of mandates.

Investment positions, such as equity investments made as part of strategic initiatives and seed investments made at the inception of funds that we manage, may also be affected by market risk factors. These investments are often not liquid and generally are intended or required to be held beyond a normal trading horizon. They are subject to a distinct control framework. Deteriorations in the fair value of these positions would have a negative effect on our earnings.

## Liquidity and funding management are critical to our ongoing performance

The viability of our business depends on the availability of funding sources, and our success depends on our ability to obtain funding at times, in amounts, for tenors and at rates that enable us to efficiently support our asset base in all market conditions. The volume of our funding sources has generally been stable, but could change in the future due to, among other things, general market disruptions or widening credit spreads, which could also influence the cost of funding. A substantial part of our liquidity and funding requirements is met using short-term unsecured funding sources, including retail and wholesale deposits and the regular issuance of money market securities. A change in the availability of short-term funding could occur quickly.

Moreover, more stringent capital and liquidity and funding requirements will likely lead to increased competition for both secured funding and deposits as a stable source of funding, and to higher funding costs. The addition of loss-absorbing debt as a component of capital requirements, the regulatory requirements to maintain minimum TLAC at holding company level and / or at subsidiaries level, as well as the power of resolution authorities to bail in TLAC and other debt obligations, and uncertainty as to how such powers will be exercised, will increase our cost of funding and could potentially increase the total amount of funding required absent other changes in our business.

Reductions in our credit ratings may adversely affect the market value of the securities and other obligations and increase our funding costs, in particular with regard to funding from wholesale unsecured sources, and can affect the availability of certain kinds of funding. In addition, as we experienced in connection with Moody's downgrade of our long-term rating in June 2012, rating downgrades can require us to post additional collateral or make additional cash payments under master trading agreements relating to its derivatives businesses. Our credit ratings, together with our capital strength and reputation, also contribute to maintaining client and counterparty confidence and it is possible that rating changes could influence the performance of some of our businesses.

### Our financial results may be negatively affected by changes to assumptions and valuations, as well as changes to accounting standards

We prepare our consolidated financial statements in accordance with IFRS. The application of these accounting standards requires the use of judgment based on estimates and assumptions that may involve significant uncertainty at the time they are made. This is the case, for example, with respect to the measurement of fair value of financial instruments, the recognition of deferred tax assets, or the assessment of the impairment of goodwill. Such judgments, including the underlying estimates and assumptions, which encompass historical experience, expectations of the future and other factors are regularly evaluated to determine their continuing relevance based on current conditions. Using different assumptions could cause the reported results to differ. Changes in assumptions, or failure to make the changes necessary to reflect evolving market conditions, may have a significant effect on the financial statements in the periods when changes occur. Moreover, if the estimates and assumptions in future periods deviate from the current outlook, our financial results may also be negatively affected.

Changes to IFRS or interpretations thereof, may cause our future reported results and financial position to differ from current expectations, or historical results to differ from those previously reported due to the adoption of accounting standards on a retrospective basis. Such changes may also affect our regulatory capital and ratios. Currently, there are a number of issued but not yet effective IFRS changes, as well as potential IFRS changes, some of which could be expected to affect our reported results, financial position and regulatory capital in the future. For example, IFRS 9, when fully adopted, will require us to record loans at inception net of expected losses instead of recording credit losses on an incurred loss basis and is generally expected to result in an increase in recognized credit loss allowances.

→ **Refer to the "Critical accounting estimates and judgments" section and "Note 1 Summary of significant accounting policies" in the "Consolidated financial statements" section of this report for more information**

### The effect of taxes on our financial results is significantly influenced by reassessments of our deferred tax assets

Our effective tax rate is highly sensitive both to our performance and our expectation of future profitability. Based on prior years' tax losses, we have recognized deferred tax assets (DTAs) reflecting the probable recoverable level based on future taxable profit as informed by our business plans. If our performance is expected to produce diminished taxable profit in future years, particularly in the US or the UK, we may be required to write down all or a portion of the currently recognized DTAs through the income statement. This would have the effect of increasing our effective tax rate in the year in which any write-downs are taken. Conversely, if our performance is expected to improve, particularly in the US or the UK, we could potentially recognize additional DTAs as a result of that assessment. The effect of doing so would be to significantly reduce our effective tax rate in years in which additional DTAs are recognized and to increase our effective tax rate in future years. We generally revalue our deferred tax assets in the second half of the financial year based on a reassessment of future profitability taking into account updated business plan forecasts. Our results in recent periods have demonstrated that changes in the recognition of DTAs can have a very significant effect on our reported results.

Our full-year effective tax rate could also change if aggregate tax expenses in respect of profits from branches and subsidiaries without loss coverage differ from what is expected, or in case of changes to the forecast period used for DTA recognition purposes as part of the aforementioned reassessment of future profitability. Moreover, tax laws or the tax authorities in countries where we have undertaken legal structure changes may prevent the transfer of tax losses incurred in one legal entity to newly organized or reorganized subsidiaries or affiliates or may impose limitations on the utilization of tax losses that relate to businesses formerly conducted by the transferor. Were this to occur in situations where there were also limited planning opportunities to utilize the tax losses in the originating entity, the DTAs associated with such tax losses could be written down through the income statement.

Our effective tax rate is also sensitive to any future reductions in statutory tax rates, particularly in the US and Switzerland, which would cause the expected future tax benefit from items such as tax loss carry-forwards in the affected locations to diminish in value. This in turn would cause a write-down of the associated DTAs. For example, for every percentage point reduction in the US federal corporate income tax rate, we would expect a CHF 0.2 billion decrease in the Group's deferred tax assets. In addition, statutory and regulatory changes, as well as changes to the way in which courts and tax authorities interpret tax laws could cause the amount of taxes ultimately paid by us to materially differ from the amount accrued.

### Our stated capital returns objective is based, in part, on capital ratios that are subject to regulatory change and may fluctuate significantly

Our capital return policy envisages total capital returns to shareholders of at least 50% of net profit attributable to shareholders, provided that we maintain a fully applied CET1 capital ratio of at least 13% and consistent with our objective of maintaining a post-stress fully applied CET1 capital ratio of at least 10%.

Our ability to maintain a fully applied CET1 capital ratio of at least 13% is subject to numerous risks, including the financial results of our businesses, the effect of changes to capital standards such as those recently introduced in Switzerland, methodologies and interpretation that may adversely affect the calculation of our fully applied CET1 capital ratio, the imposition of risk add-ons or capital buffers, and the application of additional capital, liquidity and similar requirements to subsidiaries. Refer to the discussion of these risks earlier in this section and in particular to *"Continuing low or negative interest rates may have a detrimental effect on our capital strength, liquidity and funding position, and profitability"* above for more information on the effect on capital of changes to pension plan defined benefit obligations.

To calculate our post-stress CET1 capital ratio, we forecast capital one year ahead based on internal projections of earnings, expenses, distributions to shareholders and other factors affecting CET1 capital, including our net defined benefit plan assets and liabilities. We also forecast one-year developments in RWA. We adjust these forecasts based on assumptions as to how they may change as a result of a severe stress event. We then further deduct from capital the stress loss estimated using our combined stress test (CST) framework.

Our CST framework relies on various risk exposure measurement methodologies, which are predominantly proprietary, on our selection and definition of potential stress scenarios and on our assumptions regarding estimates of changes in a wide range of macroeconomic variables and certain idiosyncratic events for each of those scenarios. We periodically review these methodologies. Assumptions are also subject to periodic review and change on a regular basis. Our risk exposure measurement methodologies may change in response to developing market practice and enhancements to our own risk control environment, and input parameters for models may change due to changes in positions, market parameters and other factors.

Our stress scenarios, the events comprising a scenario and the assumed shocks and market and economic consequences applied in each scenario are subject to periodic review and change. Our business plans and forecasts are subject to inherent uncertainty, our choice of stress test scenarios and the market and macroeconomic assumptions used in each scenario are based on judgments and assumptions about possible future events. Our risk exposure measurement methodologies are subject to inherent limitations, rely on numerous assumptions as well as on data which may have inherent limitations. In particular, certain data is not available on a monthly basis and we may therefore rely on prior-month or prior-quarter data as an estimate. Changes to our results, business plans and forecasts, in the assumptions used to reflect the effect of a stress event on our business forecasts or in the results of our CST, could have a material effect on our stress scenario results and on the calculation of our post-stress fully applied CET1 capital ratio. In assessing whether our post-stress fully applied CET1 capital ratio objective has been met at any time, we may consider both the current ratio and our expectation as to its future developments.

### As UBS Group AG is a holding company, its operating results, financial condition and ability to pay dividends and other distributions and / or to pay its obligations in the future depend on funding, dividends and other distributions received directly or indirectly from its subsidiaries, which may be subject to restrictions

UBS Group AG's ability to pay dividends and other distributions and to pay its obligations in the future will depend on the level of funding, dividends and other distributions, if any, received from UBS AG and other subsidiaries. The ability of such subsidiaries to make loans or distributions, directly or indirectly, to UBS Group AG may be restricted as a result of several factors, including restrictions in financing agreements and the requirements of applicable law and regulatory, fiscal or other restrictions. In particular, UBS Group AG's direct and indirect subsidiaries, including UBS AG, UBS Switzerland AG, UBS Limited and UBS Americas Holding LLC, are subject to laws and regulations that restrict dividend payments, authorize regulatory bodies to block or reduce the flow of funds from those subsidiaries to UBS Group AG, could impact their ability to repay any loans made to, or other investments in, such subsidiary by UBS Group AG or another member of the Group, or limit or prohibit transactions with affiliates, and could be subject to additional restrictions in the future. Restrictions and regulatory actions of this kind could impede access to funds that UBS Group AG may need to make payments. In addition, UBS Group AG's right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to all prior claims of the subsidiary's creditors.

Our capital instruments may contractually prevent UBS Group AG from proposing the distribution of dividends to shareholders, other than in the form of shares, if we do not pay interest on these instruments.

Furthermore, UBS Group AG may guarantee some of the payment obligations of certain of the Group's subsidiaries from time to time. These guarantees may require UBS Group AG to provide substantial funds or assets to subsidiaries or their creditors or counterparties at a time when UBS Group AG is in need of liquidity to fund its own obligations.

The credit ratings of UBS Group AG or its subsidiaries used for funding purposes could be lower than the ratings of the Group's operating subsidiaries, which may adversely affect the market value of the securities and other obligations of UBS Group AG or those subsidiaries on a standalone basis.

**If we experience financial difficulties, FINMA has the power to open resolution or liquidation proceedings or impose protective measures in relation to UBS Group AG, UBS AG or UBS Switzerland AG, and such proceedings or measures may have a material adverse effect on our shareholders and creditors**

Under the Swiss Banking Act, FINMA is able to exercise broad statutory powers with respect to Swiss banks and Swiss parent companies of financial groups, such as UBS AG, UBS Group AG and UBS Switzerland AG, if there is justified concern that the entity is over-indebted, has serious liquidity problems or, after the expiration of any relevant deadline, no longer fulfils capital adequacy requirements. Such powers include ordering protective measures, instituting restructuring proceedings (and exercising any Swiss resolution powers in connection therewith), and instituting liquidation proceedings, all of which may have a material adverse effect on our shareholders and creditors or may prevent UBS Group AG, UBS AG or UBS Switzerland AG from paying dividends or making payments on debt obligations.

Protective measures may include, but are not limited to, certain measures that could require or result in a moratorium on, or the deferment of, payments. We would have limited ability to challenge any such protective measures, and creditors would have no right under Swiss law or in Swiss courts to reject them, seek their suspension, or challenge their imposition, including measures that require or result in the deferment of payments.

If restructuring proceedings are opened with respect to UBS Group AG, UBS AG or UBS Switzerland AG, the resolution powers that FINMA may exercise include the power to (i) transfer all or some of the assets, debt and other liabilities, and contracts of the entity subject to proceedings to another entity, (ii) stay for a maximum of two business days the termination of, or the exercise of rights to terminate, netting rights, rights to enforce or dispose of certain types of collateral or rights to transfer claims, liabilities or certain collateral, under contracts to which the entity subject to proceedings is a party, and / or (iii) partially or fully write down the equity capital and, if such equity capital is fully written down, convert into equity or write down the capital and other debt instruments of the entity subject to proceedings. Shareholders and creditors would have no right to reject, or to seek the suspension of, any restructuring plan pursuant to which such resolution powers are exercised. They would have only limited rights to challenge any decision to exercise resolution powers or to have that decision reviewed by a judicial or administrative process or otherwise.

Upon full or partial write-down of the equity and of the debt of the entity subject to restructuring proceedings, the relevant shareholders and creditors would receive no payment in respect of the equity and debt that is written down, the write-down would be permanent, and the investors would not, at such time or at any time thereafter, receive any shares or other participation rights, or be entitled to any write-up or any other compensation in the event of a potential recovery of the debtor. If FINMA orders the conversion of debt of the entity subject to restructuring proceedings into equity, the securities received by the investors may be worth significantly less than the original debt and may have a significantly different risk profile, and such conversion would also dilute the ownership of existing shareholders. In addition, creditors receiving equity would be effectively subordinated to all creditors in the event of a subsequent winding up, liquidation or dissolution of the entity subject to restructuring proceedings, which would increase the risk that investors would lose all or some of their investment.

FINMA has broad powers and significant discretion in the exercise of its powers in connection with a resolution proceeding. Furthermore, certain categories of debt obligations, such as certain types of deposits, are subject to preferential treatment. As a result, holders of obligations of an entity subject to a Swiss restructuring proceeding may have their obligations written down or converted into equity even though obligations ranking on par with or junior to such obligations are not written down or converted.

Moreover, FINMA has expressed its preference for a "single-point-of-entry" resolution strategy for global systemically important financial groups, led by the bank's home supervisory and resolution authorities and focused on the top-level group company. This would mean that, if UBS AG or one of UBS Group AG's other subsidiaries faces substantial losses, FINMA could open restructuring proceedings with respect to UBS Group AG only and order a bail-in of its liabilities if there is a justified concern that in the near future such losses could impact UBS Group AG. In that case, it is possible that the obligations of UBS AG or any other subsidiary of UBS Group AG would remain unaffected and outstanding, while the equity capital and the capital and other debt instruments of UBS Group AG would be written down and / or converted into equity of UBS Group AG in order to recapitalize UBS AG or such other subsidiary.

Building a better working world

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## Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of

**UBS AG**

We have audited the accompanying consolidated balance sheets of UBS AG and subsidiaries as of 31 December 2016 and 2015, and the related consolidated income statements, statements of comprehensive income, changes in equity and cash flows, and notes thereto, for each of the three years in the period ended 31 December 2016. These financial statements are the responsibility of the Company's Board of Directors. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of UBS AG and subsidiaries at 31 December 2016 and 2015, and the consolidated results of their operations and their cash flows for each of the three years in the period ended 31 December 2016, in conformity with International Financial Reporting Standards, as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), UBS AG and subsidiaries' internal control over financial reporting as of 31 December 2016, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated 9 March 2017 expressed an unqualified opinion thereon.

Ernst & Young Ltd

Ernst & Young Ltd

Basel, 9 March 2017

# UBS AG consolidated financial statements

## Primary financial statements

Audited |

### Income statement

| | | For the year ended | | | % change from |
|---|---|---|---|---|---|
| *CHF million* | Note | 31.12.16 | 31.12.15 | 31.12.14 | 31.12.15 |
| Interest income | 3 | 13,782 | 13,178 | 13,194 | 5 |
| Interest expense | 3 | (7,399) | (6,449) | (6,639) | 15 |
| Net interest income | 3 | 6,383 | 6,729 | 6,555 | (5) |
| Credit loss (expense) / recovery | 11 | (37) | (117) | (78) | (68) |
| Net interest income after credit loss expense | | 6,346 | 6,612 | 6,477 | (4) |
| Net fee and commission income | 4 | 16,447 | 17,184 | 17,076 | (4) |
| Net trading income | 3 | 4,943 | 5,696 | 3,841 | (13) |
| Other income | 5 | 685 | 1,112 | 632 | (38) |
| Total operating income | | 28,421 | 30,605 | 28,026 | (7) |
| Personnel expenses | 6 | 15,591 | 15,954 | 15,280 | (2) |
| General and administrative expenses | 7 | 7,690 | 8,219 | 9,377 | (6) |
| Depreciation and impairment of property, equipment and software | 14 | 980 | 918 | 817 | 7 |
| Amortization and impairment of intangible assets | 15 | 91 | 107 | 83 | (15) |
| Total operating expenses | | 24,352 | 25,198 | 25,557 | (3) |
| Operating profit / (loss) before tax | | 4,069 | 5,407 | 2,469 | (25) |
| Tax expense / (benefit) | 8 | 781 | (908) | (1,180) | |
| Net profit / (loss) | | 3,288 | 6,314 | 3,649 | (48) |
| Net profit / (loss) attributable to preferred noteholders | | 78 | 77 | 142 | 1 |
| Net profit / (loss) attributable to non-controlling interests | | 4 | 3 | 5 | 33 |
| **Net profit / (loss) attributable to shareholders** | | 3,207 | 6,235 | 3,502 | (49) |

## Statement of comprehensive income

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| **Comprehensive income attributable to shareholders** | | | |
| **Net profit / (loss)** | 3,207 | 6,235 | 3,502 |
| | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | |
| **Foreign currency translation** | | | |
| Foreign currency translation movements, before tax | 251 | (174) | 1,839 |
| Foreign exchange amounts reclassified to the income statement from equity | 126 | (90) | 2 |
| Income tax relating to foreign currency translation movements | (84) | (1) | (7) |
| Subtotal foreign currency translation, net of tax | 293 | (266) | 1,834 |
| **Financial assets available for sale** | | | |
| Net unrealized gains / (losses) on financial assets available for sale, before tax | 240 | 180 | 335 |
| Impairment charges reclassified to the income statement from equity | 5 | 1 | 76 |
| Realized gains reclassified to the income statement from equity | (372) | (298) | (244) |
| Realized losses reclassified to the income statement from equity | 25 | 45 | 25 |
| Income tax relating to net unrealized gains / (losses) on financial assets available for sale | 28 | 8 | (52) |
| Subtotal financial assets available for sale, net of tax | (73) | (64) | 140 |
| **Cash flow hedges** | | | |
| Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax | 246 | 550 | 2,086 |
| Net realized (gains) / losses reclassified to the income statement from equity | (1,082) | (1,199) | (1,197) |
| Income tax relating to cash flow hedges | 170 | 131 | (196) |
| Subtotal cash flow hedges, net of tax | (666) | (518) | 693 |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | (447) | (848) | 2,667 |
| | | | |
| **Other comprehensive income that will not be reclassified to the income statement** | | | |
| **Defined benefit plans** | | | |
| Gains / (losses) on defined benefit plans, before tax | (876) | 322 | (1,454) |
| Income tax relating to defined benefit plans | 52 | (19) | 247 |
| Subtotal defined benefit plans, net of tax | (824) | 304 | (1,208) |
| **Own credit on financial liabilities designated at fair value** | | | |
| Gains / (losses) from own credit on financial liabilities designated at fair value, before tax | (120) | | |
| Income tax relating to own credit on financial liabilities designated at fair value | 5 | | |
| Subtotal own credit on financial liabilities designated at fair value, net of tax | (115) | | |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | (939) | 304 | (1,208) |
| | | | |
| **Total other comprehensive income** | (1,386) | (545) | 1,459 |
| **Total comprehensive income attributable to shareholders** | 1,820 | 5,690 | 4,961 |

Table continues on the next page.

## Statement of comprehensive income (continued)

Table continued from previous page.

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| **Comprehensive income attributable to preferred noteholders** | | | |
| Net profit / (loss) | 78 | 77 | 142 |
| **Other comprehensive income that will not be reclassified to the income statement** | | | |
| Foreign currency translation movements, before tax | 271 | (59) | 119 |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | 271 | (59) | 119 |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 271 | (59) | 119 |
| Total comprehensive income attributable to preferred noteholders | 349 | 18 | 260 |
| **Comprehensive income attributable to non-controlling interests** | | | |
| Net profit / (loss) | 4 | 3 | 5 |
| **Other comprehensive income that may be reclassified to the income statement** | | | |
| Other comprehensive income that may be reclassified to the income statement, before tax | 0 | 0 | 0 |
| Income tax relating to other comprehensive income that may be reclassified to the income statement | 0 | 0 | 0 |
| Total other comprehensive income that may be reclassified to the income statement, net of tax | 0 | 0 | 0 |
| **Other comprehensive income that will not be reclassified to the income statement** | | | |
| Foreign currency translation movements, before tax | 0 | (2) | 3 |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | 0 | (2) | 3 |
| Gains / (losses) on defined benefit plans, before tax | 0 | 0 | 0 |
| Income tax relating to defined benefit plans | 0 | 0 | 0 |
| Subtotal defined benefit plans, net of tax | 0 | 0 | 0 |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 0 | (2) | 3 |
| Total other comprehensive income | 0 | (2) | 3 |
| Total comprehensive income attributable to non-controlling interests | 3 | 1 | 7 |
| **Total comprehensive income** | | | |
| Net profit / (loss) | 3,288 | 6,314 | 3,649 |
| Other comprehensive income | (1,115) | (606) | 1,580 |
| *of which: other comprehensive income that may be reclassified to the income statement* | *(447)* | *(848)* | *2,667* |
| *of which: other comprehensive income that will not be reclassified to the income statement* | *(669)* | *243* | *(1,087)* |
| Total comprehensive income | 2,173 | 5,709 | 5,229 |

## Balance sheet

| | | | | % change from |
|---|---|---|---|---|
| *CHF million* | Note | 31.12.16 | 31.12.15 | 31.12.15 |
| **Assets** | | | | |
| Cash and balances with central banks | | 107,767 | 91,306 | 18 |
| Due from banks | 10, 11 | 13,125 | 11,866 | 11 |
| Cash collateral on securities borrowed | 24 | 15,111 | 25,584 | (41) |
| Reverse repurchase agreements | 24 | 66,246 | 67,893 | (2) |
| Trading portfolio assets | 22 | 96,661 | 124,047 | (22) |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *23* | *30,260* | *51,943* | *(42)* |
| Positive replacement values | 12, 22, 24 | 158,411 | 167,435 | (5) |
| Cash collateral receivables on derivative instruments | 24 | 26,664 | 23,763 | 12 |
| Loans | 10, 11 | 307,004 | 312,723 | (2) |
| Financial assets designated at fair value | 22, 24, 25 | 65,024 | 5,808 | |
| Financial assets available for sale | 13, 22 | 15,676 | 62,543 | (75) |
| Financial assets held to maturity | 13 | 9,289 | | |
| Investments in associates | 28 | 963 | 954 | 1 |
| Property, equipment and software | 14 | 8,297 | 7,683 | 8 |
| Goodwill and intangible assets | 15 | 6,556 | 6,568 | 0 |
| Deferred tax assets | 8 | 13,144 | 12,833 | 2 |
| Other assets | 16 | 25,412 | 22,249 | 14 |
| **Total assets** | | 935,353 | 943,256 | (1) |
| **Liabilities** | | | | |
| Due to banks | 17 | 10,645 | 11,836 | (10) |
| Cash collateral on securities lent | 24 | 2,818 | 8,029 | (65) |
| Repurchase agreements | 24 | 6,612 | 9,653 | (32) |
| Trading portfolio liabilities | 22 | 22,825 | 29,137 | (22) |
| Negative replacement values | 12, 22, 24 | 153,810 | 162,430 | (5) |
| Cash collateral payables on derivative instruments | 24 | 35,472 | 38,282 | (7) |
| Due to customers | 17 | 450,199 | 402,522 | 12 |
| Financial liabilities designated at fair value | 18, 22, 24 | 55,017 | 62,995 | (13) |
| Debt issued | 19 | 78,998 | 82,359 | (4) |
| Provisions | 20 | 4,169 | 4,163 | 0 |
| Other liabilities | 8, 21 | 60,443 | 74,606 | (19) |
| **Total liabilities** | | 881,009 | 886,013 | (1) |
| **Equity** | | | | |
| Share capital | | 386 | 386 | 0 |
| Share premium | | 29,505 | 29,477 | 0 |
| Retained earnings | | 28,265 | 29,433 | (4) |
| Other comprehensive income recognized directly in equity, net of tax | | (4,494) | (4,047) | 11 |
| **Equity attributable to shareholders** | | 53,662 | 55,248 | (3) |
| Equity attributable to preferred noteholders | | 642 | 1,954 | (67) |
| Equity attributable to non-controlling interests | | 40 | 41 | (2) |
| **Total equity** | | 54,343 | 57,243 | (5) |
| **Total liabilities and equity** | | 935,353 | 943,256 | (1) |

## Statement of changes in equity

| *CHF million* | Share capital | Share premium | Treasury shares | Retained earnings |
|---|---|---|---|---|
| **Balance as of 1 January 2014** | **384** | **33,906** | **(1,031)** | **20,608** |
| Issuance of share capital | 0 | | | |
| Acquisition of treasury shares | | | (953) | |
| Delivery of treasury shares under share-based compensation plans | | (266) | 445 | |
| Other disposal of treasury shares | | | 61 | |
| Premium on shares issued and warrants exercised | | 802 | | |
| Share-based compensation expensed in the income statement | | 870 | | |
| Tax (expense) / benefit | | 3 | | |
| Dividends | | (938) | | |
| Equity classified as obligation to purchase own shares | | 46 | | |
| Preferred notes | | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (2,365) | 1,440 | |
| Total comprehensive income for the year | | | | 2,294 |
| *of which: net profit / (loss)* | | | | *3,502* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *(1,208)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| **Balance as of 31 December 2014** | **384** | **32,057** | **(37)** | **22,902** |
| Issuance of share capital | 1 | | | |
| Acquisition of treasury shares | | | (292) | |
| Premium on shares issued and warrants exercised | | 290 | | |
| Tax (expense) / benefit | | 9 | | |
| Dividends | | (2,914) | | (8) |
| Equity classified as obligation to purchase own shares | | 0 | | |
| Preferred notes | | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | 35 | 328 | |
| Total comprehensive income for the year | | | | 6,538 |
| *of which: net profit / (loss)* | | | | *6,235* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *304* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: foreign currency translation* | *of which: financial assets available for sale* | *of which: cash flow hedges* | Total equity attributable to shareholders | Preferred noteholders | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| **(5,866)** | *(7,425)* | *95* | *1,463* | **48,002** | **1,893** | **41** | **49,936** |
| | | | | 0 | | | 0 |
| | | | | (953) | | | (953) |
| | | | | 179 | | | 179 |
| | | | | 61 | | | 61 |
| | | | | 802 | | | 802 |
| | | | | 870 | | | 870 |
| | | | | 3 | | | 3 |
| | | | | (938) | (142) | (4) | (1,084) |
| | | | | 46 | | | 46 |
| | | | | 0 | 1 | | 1 |
| | | | | (925) | | 1 | (924) |
| 2,667 | *1,834* | *140* | *693* | 4,961 | 260 | 7 | 5,229 |
| | | | | *3,502* | *142* | *5* | *3,649* |
| *2,667* | *1,834* | *140* | *693* | *2,667* | | | *2,667* |
| | | | | *(1,208)* | | | *(1,208)* |
| | | | | *0* | *119* | *3* | *121* |
| **(3,199)** | *(5,591)* | *236* | *2,156* | **52,108** | **2,013** | **45** | **54,165** |
| | | | | 1 | | | 1 |
| | | | | (292) | | | (292) |
| | | | | 290 | | | 290 |
| | | | | 9 | | | 9 |
| | | | | (2,922) | (77) | (5) | (3,004) |
| | | | | 0 | | | 0 |
| | | | | 0 | 1 | | 1 |
| | | | | 364 | | (1) | 363 |
| (848) | *(266)* | *(64)* | *(518)* | 5,690 | 18 | 1 | 5,709 |
| | | | | *6,235* | *77* | *3* | *6,314* |
| *(848)* | *(266)* | *(64)* | *(518)* | *(848)* | | | *(848)* |
| | | | | *304* | | | *304* |
| | | | | *0* | *(59)* | *(2)* | *(61)* |

## Statement of changes in equity (continued)

| *CHF million* | Share capital | Share premium | Treasury shares | Retained earnings |
|---|---|---|---|---|
| **Balance as of 31 December 2015** | **386** | **29,477** | **0** | **29,433** |
| Issuance of share capital | | | | |
| Premium on shares issued and warrants exercised | | 4 | | |
| Tax (expense) / benefit | | 25 | | |
| Dividends | | | | (3,434) |
| Preferred notes | | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (2) | | (1) |
| Total comprehensive income for the year | | | | 2,267 |
| *of which: net profit / (loss)* | | | | *3,207* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *(824)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | | *(115)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| Balance as of 31 December 2016 | 386 | 29,505 | 0 | 28,265 |

1 Excludes defined benefit plans and own credit that are recorded directly in retained earnings.

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: foreign currency translation* | *of which: financial assets available for sale* | *of which: cash flow hedges* | Total equity attributable to shareholders | Preferred noteholders | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| **(4,047)** | *(5,857)* | *172* | *1,638* | **55,248** | **1,954** | **41** | **57,243** |
| | | | | 0 | | | 0 |
| | | | | 4 | | | 4 |
| | | | | 25 | | | 25 |
| | | | | (3,434) | (78) | (5) | (3,517) |
| | | | | 0 | (1,583) | | (1,583) |
| | | | | (3) | | 0 | (2) |
| (447) | 293 | (73) | (666) | 1,820 | 349 | 3 | 2,173 |
| | | | | *3,207* | *78* | *4* | *3,288* |
| *(447)* | *293* | *(73)* | *(666)* | *(447)* | | | *(447)* |
| | | | | *(824)* | | | *(824)* |
| | | | | *(115)* | | | *(115)* |
| | | | | *0* | *271* | *0* | *271* |
| (4,494) | *(5,564)* | *98* | *972* | 53,662 | 642 | 40 | 54,343 |

## UBS AG shares issued and treasury shares held

As of 31 December 2016, shares issued by UBS AG totaled 3,858,408,466 (31 December 2015: 3,858,408,466 shares).

No treasury shares were held as of 31 December 2016 and as of 31 December 2015.

## Conditional share capital

As of 31 December 2016, UBS AG's share capital could have been increased through the issuance of 136,200,312 shares upon exercise of employee options.

Additional conditional capital up to a maximum number of 380,000,000 shares was available as of 31 December 2016 for conversion rights and warrants granted in connection with the issuance of bonds or similar financial instruments.

## Statement of cash flows

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| **Cash flow from / (used in) operating activities** | | | |
| Net profit / (loss) | 3,288 | 6,314 | 3,649 |
| **Non-cash items included in net profit and other adjustments:** | | | |
| Depreciation and impairment of property, equipment and software | 980 | 918 | 817 |
| Amortization and impairment of intangible assets | 91 | 107 | 83 |
| Credit loss expense / (recovery) | 37 | 117 | 78 |
| Share of net profits of associates | (106) | (169) | (94) |
| Deferred tax expense / (benefit) | 2 | (1,614) | (1,635) |
| Net loss / (gain) from investing activities | (1,176) | (934) | (227) |
| Net loss / (gain) from financing activities | 9,647 | (1,654) | 2,135 |
| Other net adjustments | (300) | 3,628 | (7,250) |
| **Net change in operating assets and liabilities:** | | | |
| Due from / to banks | (1,183) | 1,768 | (1,235) |
| Cash collateral on securities borrowed and reverse repurchase agreements | 7,933 | (2,712) | 32,262 |
| Cash collateral on securities lent and repurchase agreements | (6,637) | (2,909) | (3,698) |
| Trading portfolio and replacement values | 6,024 | 6,853 | (5,576) |
| Financial assets designated at fair value | (60,658) | (1,446) | 2,697 |
| Cash collateral on derivative instruments | (4,169) | 3,285 | (7,301) |
| Loans | 3,740 | 841 | (20,427) |
| Due to customers | 33,925 | (17,362) | 8,803 |
| Other assets, provisions and other liabilities | (8,204) | 7,516 | 4,751 |
| Income taxes paid, net of refunds | (649) | (551) | (600) |
| **Net cash flow from / (used in) operating activities** | (17,413) | 1,997 | 7,231 |
| **Cash flow from / (used in) investing activities** | | | |
| Purchase of subsidiaries, associates and intangible assets | (26) | (13) | (18) |
| Disposal of subsidiaries, associates and intangible assets[1] | 93 | 477 | 70 |
| Purchase of property, equipment and software | (1,746) | (1,841) | (1,915) |
| Disposal of property, equipment and software | 209 | 547 | 350 |
| Purchase of financial assets available for sale | (7,271) | (101,189) | (136,330) |
| Disposal and redemption of financial assets available for sale | 54,097 | 93,584 | 140,438 |
| Net (purchase) / redemption of financial assets held to maturity | (8,996) | | |
| **Net cash flow from / (used in) investing activities** | 36,359 | (8,434) | 2,596 |

Table continues on the next page.

## Statement of cash flows (continued)

Table continued from previous page.

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| **Cash flow from / (used in) financing activities** | | | |
| Net short-term debt issued / (repaid) | 5,440 | (6,404) | (2,921) |
| Net movements in treasury shares and own equity derivative activity | 0 | 0 | (719) |
| Distributions paid on UBS AG shares | (3,434) | (2,626) | (938) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 33,453 | 47,790 | 40,982 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (34,081) | (44,221) | (34,210) |
| Dividends paid and repayments of preferred notes | (1,366) | (108) | (110) |
| Net changes in non-controlling interests | (5) | (5) | (3) |
| Net cash flow from / (used in) financing activities | 6 | (5,573) | 2,081 |
| **Total cash flow** | | | |
| Cash and cash equivalents at the beginning of the year | 102,962 | 116,715 | 96,284 |
| Net cash flow from / (used in) operating, investing and financing activities | 18,952 | (12,011) | 11,908 |
| Effects of exchange rate differences on cash and cash equivalents | (807) | (1,742) | 8,522 |
| Cash and cash equivalents at the end of the year[2] | 121,107 | 102,962 | 116,715 |
| *of which: cash and balances with central banks* | 107,715 | 91,306 | 104,073 |
| *of which: due from banks* | 11,927 | 10,732 | 11,772 |
| *of which: money market paper[3]* | 1,465 | 924 | 869 |
| **Additional information** | | | |
| Net cash flow from / (used in) operating activities includes: | | | |
| Interest received in cash | 12,223 | 11,144 | 11,321 |
| Interest paid in cash | 6,141 | 5,267 | 5,360 |
| Dividends on equity investments, investment funds and associates received in cash[4] | 1,595 | 2,120 | 1,961 |

1 Includes dividends received from associates. 2 CHF 2,662 million, CHF 3,963 million and CHF 4,178 million of cash and cash equivalents (mainly reflected in Due from banks) were restricted as of 31 December 2016, 31 December 2015 and 31 December 2014, respectively. Refer to Note 23 for more information. 3 Money market paper is included in the balance sheet under Trading portfolio assets (31 December 2016: CHF 75 million, 31 December 2015: CHF 795 million, 31 December 2014: CHF 835 million), Financial assets available for sale (31 December 2016: CHF 430 million, 31 December 2015: CHF 129 million, 31 December 2014: CHF 34 million) and Financial assets designated at fair value (31 December 2016: CHF 959 million, 31 December 2015: CHF 0 million, 31 December 2014: CHF 0 million). 4 Includes dividends received from associates (2016: CHF 50 million, 2015: CHF 114 million, 2014: CHF 54 million) reported within cash flow from / (used in) investing activities.

# Notes to the UBS AG consolidated financial statements

## Note 1 Summary of significant accounting policies

### a) Significant accounting policies

This Note describes the significant accounting policies applied in the preparation of the consolidated financial statements (the "Financial Statements") of UBS AG and its subsidiaries ("UBS AG"). On 9 March 2017, the Financial Statements were authorized for issue by the Board of Directors.

#### Basis of accounting

The Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), and are presented in Swiss francs (CHF), the currency of Switzerland, where UBS AG is incorporated.

Disclosures provided in the "Risk, treasury and capital management" section of this report that are marked as audited form an integral part of the Financial Statements. These disclosures relate to requirements under IFRS 7, *Financial Instruments: Disclosures* and IAS 1, *Presentation of Financial Statements* and are not repeated in this section.

The accounting policies described in this Note have been applied consistently in all years presented unless otherwise stated in Note 1b.

#### Critical accounting estimates and judgments

Preparation of these Financial Statements under IFRS requires management to apply judgment and make estimates and assumptions that affect reported amounts of assets, liabilities, income and expenses and disclosure of contingent assets and liabilities, and may involve significant uncertainty at the time they are made. Such estimates and assumptions are based on the best available information. UBS AG regularly reassesses the estimates and assumptions, which encompass historical experience, expectations of the future and other pertinent factors, to determine their continuing relevance based on current conditions and it updates them as necessary. Changes in those estimates and assumptions may have a significant impact on the Financial Statements. Further, actual results may differ significantly from UBS AG's estimates, which could result in significant loss to it, beyond what it anticipated or provided for.

The following areas contain estimation uncertainty or require critical judgment and have a significant effect on the amounts recognized in the Financial Statements:

- consolidation of structured entities (refer to item 1 in this Note and to Note 28)
- fair value of financial instruments (refer to item 3f in this Note and to Note 22)
- allowances and provisions for credit losses for financial assets held at amortized cost (refer to item 3g in this Note and to Note 11)
- pension and other post-employment benefit plans (refer to item 7 in this Note and to Note 26)
- income taxes (refer to item 8 in this Note and to Note 8)
- goodwill (refer to item 11 in this Note and to Note 15)
- provisions and contingent liabilities (refer to item 12 in this Note and to Note 20).

#### 1) Consolidation

##### a. Consolidation principles

The Financial Statements comprise the financial statements of UBS AG and its subsidiaries, including controlled structured entities (SEs), presented as a single economic entity, whereby intercompany transactions and balances have been eliminated. UBS AG consolidates all entities that it controls, which is the case when it has (i) power over the relevant activities of the entity, (ii) exposure to an entity's variable returns and (iii) the ability to use its power to affect an entity's returns.

Where an entity is governed by voting rights, control is generally indicated by a direct shareholding of more than one-half of the voting rights.

In other cases, the assessment of control is more complex and requires greater use of judgment. Where UBS AG has an interest in an entity that absorbs variability, UBS AG considers whether it has power over the relevant activities of the entity that allows it to affect the variability of its returns. Consideration is given to all facts and circumstances to determine whether UBS AG has power over another entity, that is, the current ability to direct the relevant activities of an entity when decisions about those activities need to be made. Factors such as the purpose and design of the entity, rights held through contractual arrangements such as call rights, put rights or liquidation rights, as well as potential decision-making rights are all considered in this assessment. Where UBS AG has power over the relevant activities, a further assessment is made to determine whether, through that power, it has the ability to affect its own returns by assessing whether power is held in a principal or agent capacity. Consideration is given to (i) the scope of decision-making authority, (ii) rights held by other parties, including removal or other participating rights and (iii) exposure to variability, including remuneration, relative to total variability of the entity as well as whether that exposure is different from that of other investors. If, after review of these factors, UBS AG concludes that it can exercise its power to affect its own returns, the entity is consolidated.

Subsidiaries, including SEs, are consolidated from the date when control is obtained and are deconsolidated from the date when control ceases. Control, or the lack thereof, is reassessed if facts and circumstances indicate that there is a change to one or more of the elements needed to establish that control is present.

→ **Refer to Note 28 for more information**

**Note 1 Summary of significant accounting policies (continued)**

b. Structured entities

UBS AG sponsors the formation of SEs and interacts with non-sponsored SEs for a variety of reasons, including allowing clients to obtain or be exposed to particular risk profiles, to provide funding or to sell or purchase credit risk. An SE is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity. Such entities generally have a narrow and well-defined objective and include those historically referred to as special purpose entities and some investment funds. UBS AG assesses whether an entity is an SE by considering the nature of the activities of the entity as well as the substance of voting or similar rights afforded to other parties, including investors and independent boards or directors. UBS AG considers rights such as the ability to liquidate the entity or remove the decision maker to be similar to voting rights when the holder has the substantive ability to exercise such rights without cause. In the absence of such rights or in cases where the existence of such rights cannot be fully established, the entity is considered to be an SE.

The classes of SEs UBS AG is involved with include:

– *Securitization structured entities* are established to issue securities to investors that are backed by assets held by the SE and whereby (i) significant credit risk associated with the securitized exposures has been transferred to third parties and (ii) there is more than one risk position or tranche issued by the securitization vehicle in line with the Basel III securitization definition. All securitization entities are classified as SEs.
– *Client investment structured entities* are established predominantly for clients to invest in specific assets or risk exposures through purchasing notes issued by the SE, predominantly on a fixed-term basis. The SE may source assets via a transfer from UBS AG or through an external market transaction. In some cases, UBS AG may enter into derivatives with the SE to either align the cash flows of the entity with the investor's intended investment objective or to introduce other desired risk exposures. In certain cases, UBS AG may have interests in a third-party-sponsored SE to hedge specific risks or participate in asset-backed financing.
– *Investment fund structured entities* have a collective investment objective, are managed by an investment manager and are either passively managed, so that any decision making does not have a substantive effect on variability, or are actively managed and investors or their governing bodies do not have substantive voting or similar rights. UBS AG creates and sponsors a large number of funds in which it may have an interest through the receipt of variable management fees and / or a direct investment. In addition, UBS AG has interests in a number of funds created and sponsored by third parties, including exchange-traded funds and hedge funds, to hedge issued structured products.

When UBS AG does not consolidate an SE, but has an interest in an SE or has sponsored an SE, disclosures are provided on the nature of these interests and sponsorship activities.

*Critical accounting estimates and judgments*

Each individual entity is assessed for consolidation in line with the aforementioned consolidation principles. The assessment of control can be complex and requires the use of significant judgment. As the nature and extent of UBS AG's involvement is unique to each entity, there is no uniform consolidation outcome by entity. Certain entities within a class may be consolidated while others may not.

→ **Refer to Note 28 for more information**

2) Segment reporting

UBS AG's businesses are organized globally into five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank, all of which are supported by Corporate Center. The five business divisions qualify as reportable segments for the purpose of segment reporting and, together with Corporate Center, reflect the management structure of UBS AG. Corporate Center – Non-core and Legacy Portfolio is managed and reported as a separate reportable segment within Corporate Center. Financial information about the five business divisions and Corporate Center (with its units: Services, Group Asset and Liability Management (Group ALM), Non-core and Legacy Portfolio) is presented separately in internal reporting to management.

UBS AG's internal accounting policies, which include management accounting policies and service level agreements, determine the revenues and expenses directly attributable to each reportable segment. Transactions between the reportable segments are carried out at internally agreed rates and are reflected in the operating results of the reportable segments. Revenue-sharing agreements are used to allocate external client revenues to reportable segments where several reportable segments are involved in the value creation chain. Commissions are credited to the reportable segments based on the corresponding client relationship. Total intersegment revenues for UBS AG are immaterial, as the majority of the revenues are allocated across the segments by means of revenue-sharing agreements. Net interest income is generally allocated to the reportable segments based on their balance sheet positions. Interest income earned from managing UBS AG's consolidated equity is allocated to the reportable segments based on average attributed equity. Assets and liabilities of the reportable segments are funded through and invested with Corporate Center – Group ALM, and the net interest margin is reflected in the results of each reportable segment.

## Note 1 Summary of significant accounting policies (continued)

Segment assets are based on a third-party view and do not include intercompany balances. This view is in line with internal reporting to management. Certain assets managed centrally by Corporate Center – Services and Corporate Center – Group ALM may be allocated to the segments on a basis different to that which the corresponding costs or revenues are allocated to. For example, certain assets that are reported in Corporate Center – Services or Corporate Center – Group ALM may be retained on the balance sheets of these components of Corporate Center notwithstanding that the costs or revenues associated with these assets may be entirely or partly allocated to the segments. Similarly, certain assets are reported in the business divisions, whereas the corresponding costs or revenues are entirely or partly allocated to Corporate Center – Services and Corporate Center – Group ALM.

→ **Refer to Note 2 for more information**

### 3) Financial instruments

#### a. Recognition

UBS AG recognizes financial instruments when it becomes a party to the contractual provisions of the instrument. UBS AG applies trade date accounting to derivatives and settlement date accounting to all non-derivative financial instruments.

UBS AG also acts in a fiduciary capacity, which results in the holding or placing of assets on behalf of individuals, trusts, retirement benefit plans and other institutions. Unless the recognition criteria are satisfied, these assets and the related income are excluded from UBS AG's Financial Statements, as they are not assets of UBS AG.

Client cash balances associated with derivatives clearing and execution services are not recognized on the balance sheet if, through contractual agreement, regulation or practice, UBS AG neither obtains benefits from nor controls the client cash balances.

#### b. Classification, measurement and presentation

Upon initial recognition, UBS AG records financial instruments at fair value plus directly attributable transaction costs in the case of financial instruments not subsequently accounted for at fair value through profit or loss. After initial recognition, UBS AG classifies, measures and presents its financial assets and liabilities in accordance with IAS 39, *Financial Instruments: Recognition and Measurement* as described in the following table.

→ **Refer to Note 25a for an overview of financial assets and liabilities by IAS 39 category**

→ **Refer to the balance sheet for references to Notes that provide information on the composition of individual financial asset and liability categories**

## Note 1 Summary of significant accounting policies (continued)

| Financial assets classification | Significant items included | Measurement and presentation |
|---|---|---|
| **Held for trading** | All derivatives with a positive replacement value, except those that are designated and effective hedging instruments.<br><br>Any other financial asset acquired principally for the purpose of selling or repurchasing in the near term, or part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit taking. Included in this category are debt instruments (including those in the form of securities, money market paper and traded corporate and bank loans), equity instruments, and assets held under unit-linked investment contracts. | Measured at fair value with changes recognized in profit or loss.<br><br>Changes in fair value, initial transaction costs and gains and losses realized on disposal or redemption are recognized in *Net trading income*, except interest and dividend income on non-derivatives (refer to item 3c in this Note), derivatives designated as hedging instruments in certain types of hedge accounting relationships and forward points on certain short duration foreign exchange contracts, which are reported in *Net interest income.*<br><br>Derivative assets are generally presented as *Positive replacement values.* |
| **Designated at fair value through profit or loss** | A financial asset may be designated at fair value through profit or loss only upon initial recognition and this designation is irrevocable.<br><br>The fair value option can be applied only if one of the following criteria are met:<br>– the financial instrument is a hybrid instrument that includes a substantive embedded derivative;<br>– the financial instrument is part of a portfolio that is risk managed on a fair value basis and reported to senior management on that basis; or<br>– the application of the fair value option eliminates or significantly reduces an accounting mismatch that would otherwise arise.<br><br>UBS AG designated at fair value through profit or loss the following instruments:<br>– Certain structured loans, reverse repurchase and securities borrowing agreements that are managed on a fair value basis.<br>– Loans that are hedged predominantly with credit derivatives. These instruments are designated at fair value to eliminate an accounting mismatch.<br>– As of 1 January 2016, certain newly purchased debt securities held as high-quality liquid assets (HQLA) and managed by Corporate Center – Group ALM on a fair value basis.<br>– Assets held to hedge delivery obligations related to cash-settled employee compensation plans. These assets are designated at fair value in order to eliminate an accounting mismatch that would otherwise arise due to the liability being measured on a fair value basis. | Bifurcated embedded derivatives are measured at fair value, but presented on the same balance sheet line as the host contract measured at amortized cost.<br><br>Derivatives that are designated and effective hedging instruments are also measured at fair value. The presentation of fair value changes differs depending on the type of hedge relationship (refer to item 3k in this Note for more information).<br><br>Held for trading assets (other than derivatives) are presented as *Trading portfolio assets.*<br><br>Financial assets designated at fair value through profit or loss are presented as *Financial assets designated at fair value.* |
| **Loans and receivables (amortized cost)** | Non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and are not assets for which UBS AG may not recover substantially all of its initial net investment for reasons other than credit deterioration. This classification includes:<br>– cash and balances with central banks<br>– cash collateral receivables on derivative instruments<br>– residential and commercial mortgages<br>– secured loans, including reverse repurchase agreements, receivables under stock borrowing and lombard loans, and unsecured loans<br>– certain securities held within Corporate Center - Non-core and Legacy Portfolio<br>– trade and lease receivables. | Measured at amortized cost using the effective interest rate method less allowances for credit losses (refer to items 3c and 3g in this Note).<br><br>Upfront fees and direct costs relating to loan origination, refinancing or restructuring as well as to loan commitments are deferred and amortized over the life of the loan using the effective interest rate method.<br><br>Loans and receivables are presented on the balance sheet primarily as *Cash and balances with central banks*, *Due from banks*, *Loans*, *Cash collateral on securities borrowed*, *Reverse repurchase agreements* and *Cash collateral receivables on derivative instruments.*<br><br>Exchange-traded derivatives and certain OTC derivatives cleared through central clearing counterparties which are either considered to be daily settled or qualify for netting (refer to items 3d and 3j in this Note ) are presented within *Cash collateral receivables on derivative instruments.* |

## Note 1 Summary of significant accounting policies (continued)

| Financial assets classification | Significant items included | Measurement and presentation |
|---|---|---|
| **Available for sale** | Financial assets classified as available for sale are non-derivative financial assets that are not classified as held for trading, designated at fair value through profit or loss, or loans and receivables. This classification mainly includes debt securities held as HQLA and managed by Corporate Center – Group ALM, as well as certain asset-backed securities managed by Corporate Center – Group ALM. | Measured at fair value with unrealized gains and losses reported in *Other comprehensive income*, net of applicable income taxes, until such investments are sold, collected or otherwise disposed of, or until any such investment is determined to be impaired (refer to item 3i in this Note). Upon disposal, any accumulated balances in *Other comprehensive income* are reclassified to the income statement and reported within *Other income*.<br><br>Interest and dividend income are recognized in the income statement in accordance with item 3c in this Note. Refer to item 13 in this Note for information on the treatment of foreign exchange translation gains and losses. |
| **Held to maturity** | Non-derivative financial assets with fixed or determinable payments and fixed maturities for which UBS AG has the positive intention and ability to hold to maturity. As of 1 January 2016, UBS AG classified as held to maturity certain newly purchased debt securities held as HQLA and managed by Corporate Center – Group ALM. | Measured at amortized cost using the effective interest rate method less allowances for credit losses (refer to items 3c and 3g in this Note). |

| Financial liabilities classification | Significant items included | Measurement and presentation |
|---|---|---|
| **Held for trading** | – Obligations to deliver financial instruments, such as debt and equity instruments, which UBS AG has sold to third parties, but does not own (short positions).<br>– Liabilities held under unit-linked investment contracts.<br>– All derivatives with a negative replacement value, except those that are designated and effective hedging instruments. | Measurement of trading liabilities follows the same principles as held for trading assets and measurement of liabilities designated at fair value through profit or loss follows the same principles as assets designated at fair value through profit or loss.<br><br>Presented as *Trading portfolio liabilities* and *Financial liabilities designated at fair value*, respectively.<br><br>Derivative liabilities are generally presented as *Negative replacement values.*<br><br>Bifurcated embedded derivatives are measured at fair value, but are presented on the same balance sheet line as the host contract.<br><br>Derivatives that are designated and effective hedging instruments are also measured at fair value. The presentation of fair value changes differs depending on the type of hedge relationship (refer to item 3k in this Note for more information).<br><br>Amounts due under unit-linked investment contracts are presented as *Other liabilities.* |
| **Designated at fair value through profit or loss** | – Issued hybrid debt instruments that primarily include equity-linked, credit-linked and rates-linked bonds or notes.<br>– Issued debt instruments managed on a fair value basis.<br>– Loan commitments that are hedged predominantly with credit derivatives and hence eliminate an accounting mismatch. | |
| **Amortized cost** | – Demand and time deposits, retail savings / deposits, cash collateral on securities lent, non-structured fixed-rate bonds, subordinated debt, certificates of deposit, covered bonds.<br>– Cash collateral payables on derivative instruments. | Measured at amortized cost using the effective interest rate method<br><br>Amortized cost liabilities are presented on the balance sheet primarily as *Due to banks*, *Due to customers*, *Cash collateral on securities lent*, *Repurchase agreements*, *Cash collateral payables on derivative instruments* and *Debt issued.*<br><br>Exchange-traded derivatives and certain OTC derivatives cleared through central clearing counterparties which are either considered to be daily settled or qualify for netting (refer to items 3d and 3j of this Note ) are presented within *Cash collateral payables on derivative instruments.* |

**Note 1 Summary of significant accounting policies (continued)**

## c. Interest income and expense

Interest income or expense is determined by reference to a financial instrument's amortized-cost basis calculated using the effective interest rate (EIR) method. UBS AG also uses this method to determine the interest income and expense for financial instruments (excluding derivatives) measured at fair value through profit or loss that is presented within *Net interest income*.

Upfront fees, including loan commitment fees where a loan is expected to be issued, and direct costs are included within the initial measurement of a financial instrument measured at amortized cost or classified as available for sale. Such fees and costs are therefore recognized over the expected life of the instrument as part of its EIR.

Fees related to loan commitments where no loan is expected to be issued, as well as loan syndication fees where UBS AG does not retain a portion of the syndicated loan or where UBS AG does retain a portion of the syndicated loan at the same effective yield for comparable risk as other participants, are included in *Net fee and commission income.*

Interest income on financial assets, excluding derivatives, is included in *Interest income* when positive and in *Interest expense* when negative, because negative interest income arising on a financial asset does not meet the definition of revenue. Similarly, interest expense on financial liabilities, excluding derivatives, is included in *Interest expense,* except when interest rates are negative, in which case it is included in *Interest income*. Dividend income on all financial assets is included in *Interest income*.

→ **Refer to Note 3 for more information**

## d. Derecognition

### *Financial assets*

UBS AG derecognizes a financial asset, or a portion of a financial asset, from its balance sheet where the contractual rights to cash flows from the asset have expired, or have been transferred, usually by sale, thus exposing the purchaser to either substantially all the risks and rewards of the asset or a significant part of the risks and rewards combined with the unconditional ability to sell or pledge the asset.

A financial asset is considered to have been transferred when UBS AG (i) transfers the contractual rights to receive the cash flows of the financial asset or (ii) retains the contractual rights to receive the cash flows of that asset, but assumes a contractual obligation to pay the cash flows to one or more entities.

Where financial assets have been pledged as collateral or in similar arrangements, they are considered to have been transferred if the counterparty has received the contractual right to the cash flows of the pledged assets, as may be evidenced, for example, by the counterparty's right to sell or repledge the assets. Where the counterparty to the pledged financial assets has not received the contractual right to the cash flows, UBS AG does not consider this to be a transfer for the purposes of derecognition.

UBS AG enters into certain transactions where it transfers financial assets recognized on its balance sheet but retains either all or a portion of the risks and rewards of the transferred financial assets. If all or substantially all of the risks and rewards are retained, the transferred financial assets are not derecognized from the balance sheet; for example, securities lending and repurchase transactions or where financial assets are sold to a third party with a total return swap resulting in UBS AG retaining all or substantially all of the risks and rewards of the transferred assets. These types of transactions are accounted for as secured financing transactions as described in item 3e of this Note.

In transactions where substantially all of the risks and rewards of ownership of a financial asset are neither retained nor transferred, UBS AG derecognizes the financial asset if control over the asset is surrendered, and the rights and obligations retained following the transfer are recognized separately as assets and liabilities, respectively. In transfers where control over the financial asset is retained, UBS AG continues to recognize the asset to the extent of its continuing involvement, determined by the extent to which it is exposed to changes in the value of the transferred asset following the transfer.

Certain over-the-counter (OTC) derivative contracts and most exchange-traded futures and options contracts cleared through central clearing counterparties are considered to be settled on a daily basis through the daily margining process, as the payment or receipt of the variation margin represents legal or economic settlement of a derivative contract, which results in derecognition of the associated positive and negative replacement values.

→ **Refer to Notes 1b and 24 for more information**

**Note 1 Summary of significant accounting policies (continued)**

*Financial liabilities*

UBS AG derecognizes a financial liability from its balance sheet when it is extinguished, such as when the obligation specified in the contract is discharged, canceled or has expired. When an existing financial liability is exchanged for a new one from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification results in derecognition of the original liability and the recognition of a new liability with any difference in the respective carrying amounts being recognized in the income statement.

### e. Securities borrowing / lending and repurchase / reverse repurchase transactions

Securities borrowing / lending and repurchase / reverse repurchase transactions are generally entered into on a collateralized basis. In such transactions, UBS AG typically borrows or lends equity and debt securities in exchange for securities or cash collateral. Additionally, UBS AG borrows securities from its clients' custody accounts in exchange for a fee.

These transactions are treated as collateralized financing transactions where the securities transferred / received are not derecognized or recognized on balance sheet. Securities transferred / received with the right to resell or repledge are disclosed separately.

In reverse repurchase and securities borrowing agreements, the cash delivered is derecognized and a corresponding receivable, including accrued interest, is recorded in the balance sheet lines *Reverse repurchase agreements* and *Cash collateral on securities borrowed,* respectively, representing UBS AG's right to receive the cash. Similarly, in repurchase and securities lending agreements, the cash received is recognized and a corresponding obligation, including accrued interest, is recorded in the balance sheet lines *Repurchase agreements* and *Cash collateral on securities lent,* respectively. Additionally, the sale of securities that is settled by delivering securities received in reverse repurchase or securities borrowing transactions triggers the recognition of a trading liability.

Repurchase and reverse repurchase transactions with the same counterparty, maturity, currency and Central Securities Depository (CSD) are generally presented net subject to meeting the netting requirements described in item 3j of this Note.

→ **Refer to Notes 23 and 24 for more information**

### f. Fair value of financial instruments

UBS AG accounts for a significant portion of its assets and liabilities at fair value. Fair value is the price on the measurement date that would be received for the sale of an asset or paid to transfer a liability in an orderly transaction between market participants in the principal market, or in the most advantageous market in the absence of a principal market.

All financial instruments measured at fair value are categorized into one of three fair value hierarchy levels. The fair values of Level 1 financial instruments are based on quoted prices in active markets. The fair values of Level 2 financial instruments are based on valuation techniques for which all significant inputs are, or are based on, observable market data. The fair values of Level 3 financial instruments are based on valuation techniques for which significant inputs are not based on observable market data.

*Critical accounting estimates and judgments*

The use of valuation techniques, modeling assumptions and estimates of unobservable market inputs require significant judgment and could affect the amount of gain or loss recorded for a particular position. Valuation techniques that rely more heavily on unobservable inputs require a higher level of judgment to calculate a fair value than those entirely based on observable inputs.

Valuation techniques, including models, that are used to determine fair values are periodically reviewed and validated by qualified personnel, independent of those who created them. Models are calibrated to ensure that outputs reflect observable market data, to the extent possible. Also, models prioritize the use of observable inputs, when available, over unobservable inputs. Judgment is required in selecting appropriate models as well as inputs for which observable data is less readily or not available.

UBS AG's valuation techniques may not fully reflect all the factors relevant to the fair value of financial instruments held. Valuations are therefore adjusted, where appropriate, to allow for additional factors, including credit risk, model risk, and liquidity risk.

UBS AG's governance framework over fair value measurement is described in Note 22b.

The level of subjectivity and the degree of management judgment involved in the development of estimates and the selection of assumptions is more significant for instruments valued using specialized and sophisticated models and where some or all of the parameter inputs are less observable (Level 3 instruments) and may require adjustment to reflect factors that market participants would consider in estimating fair value, such as close-out costs, credit exposure, model-driven valuation uncertainty, funding costs and benefits, trading restrictions and other factors which are presented in Note 22d. UBS AG provides a sensitivity analysis of the impact upon the Level 3 financial instruments of using reasonably possible alternative assumptions for the unobservable parameters within Note 22g.

→ **Refer to Note 22 for more information**

**Note 1 Summary of significant accounting policies (continued)**

## g. Allowances and provisions for credit losses for financial assets held at amortized cost

A claim is impaired and an allowance or provision for credit losses is recognized when objective evidence demonstrates that a loss event was incurred after the initial recognition and that the loss event has an impact on the future cash flows that can be reliably estimated. UBS AG considers a claim to be impaired if it will be unable to collect all amounts due on the claim based on the original contractual terms due to credit deterioration of the issuer or counterparty. A claim can be a loan or receivable carried at amortized cost, or a commitment, such as a letter of credit, a guarantee or a similar instrument.

An allowance for credit losses is reported as a decrease in carrying value of a claim on the balance sheet. For an off-balance sheet item, such as a commitment, a provision for credit loss is reported in *Provisions*. Changes to allowances and provisions for credit losses are recognized in *Credit loss expense / recovery*.

→ **Refer to Notes 10 and 11 for more information**

### *Critical accounting estimates and judgments*

Allowances and provisions for credit losses are evaluated at both a counterparty-specific level and collectively. Judgment is used in making assumptions about the timing and amount of impairment losses.

*Counterparty-specific allowances and provisions*

Loans are evaluated individually for impairment if objective evidence indicates that a loan may be impaired. Individual credit exposures are evaluated on the basis of the borrower's overall financial condition, resources and payment record, the prospects of support from contractual guarantors and, where applicable, the realizable value of any collateral. The impairment loss for a loan is the excess of the carrying value of the financial asset over the estimated recoverable amount. The estimated recoverable amount is the present value, calculated using the loan's original effective interest rate, of expected future cash flows, including amounts that may result from restructuring or the liquidation of collateral. If a loan has a variable interest rate, the discount rate for calculating the recoverable amount is the current effective interest rate. Upon impairment, the accrual of interest income based on the original terms of the loan is discontinued. Instead, the increase in the present value of the impaired loan due to the passage of time is calculated and reported within *Interest income*.

*Collective allowances and provisions*

Collective allowances and provisions are calculated for portfolios with similar credit risk characteristics, taking into account historical loss experience and current conditions. The methodology and assumptions used are reviewed regularly to reduce any differences between estimated and actual loss experience. For all of its portfolios, UBS AG also assesses whether there have been any unforeseen developments that might result in impairments but are not immediately observable at a counterparty level. To determine whether an event-driven collective allowance for credit losses is required, UBS AG considers global economic drivers to assess the most vulnerable countries and industries. As the allowance cannot be allocated to individual loans, the loans are not considered to be impaired and interest is accrued on each loan according to its contractual terms. If objective evidence becomes available that indicates that an individual financial asset is impaired, it is removed from the group of financial assets assessed for impairment on a collective basis and is assessed separately as counterparty-specific.

All impaired loans are reviewed and analyzed at least annually. Any subsequent changes to the amounts and timing of the expected future cash flows compared with prior estimates result in a change in the allowance for credit losses and are charged or credited to *Credit loss expense / recovery*. An allowance for impairment is reversed only when the credit quality has improved to such an extent that there is reasonable assurance of timely collection of principal and interest in accordance with the original contractual terms of the claim, or the equivalent value thereof. A write-off is made when all or part of a claim is deemed uncollectible or forgiven. Write-offs reduce the principal amount of a claim and are charged against previously established allowances for credit losses. Recoveries, in part or in full, of amounts previously written off are credited to *Credit loss expense / recovery.*

**Note 1 Summary of significant accounting policies (continued)**

### h. Renegotiated loans

A renegotiated or restructured loan is a loan for which the terms have been modified or for which additional collateral has been requested that was not contemplated in the original contract.

Typical key features of terms and conditions granted through renegotiation to avoid default include special interest rates, postponement of interest or amortization payments, modification of the schedule of repayments or amendment of loan maturity. There is no change in the EIR following a renegotiation.

If a loan is renegotiated with preferential conditions (i.e., new or modified terms and conditions are agreed upon which do not meet the normal market criteria for the quality of the obligor and the type of loan), it is still classified as non-performing. It will remain so until the loan is collected or written off and will be assessed for impairment on an individual basis.

Concessions granted where there is no evidence of financial difficulty, or where any changes to terms and conditions are within UBS AG's usual risk appetite, are not deemed restructured.

A restructuring of a loan could lead to a fundamental change in the terms and conditions of a loan, resulting in the original loan being derecognized and a new loan being recognized.

If a loan is derecognized in these circumstances, the new loan is measured at fair value at initial recognition. Any allowance taken to date against the original loan is derecognized and is not attributed to the new loan. Consequently, the new loan is assessed for impairment on an individual basis. If the loan is not impaired, the loan is included within the general collective loan assessment for the purpose of measuring credit losses.

### i. Impairment of financial assets classified as available for sale

At each balance sheet date, UBS AG assesses whether indicators of impairment are present. Available-for-sale debt instruments are impaired when there is objective evidence, using the same criteria described in item 3g, that, as a result of one or more events that occurred after the initial recognition of the asset, the estimated future cash flows have decreased.

Objective evidence that there has been an impairment of an available-for-sale equity instrument is a significant or prolonged decline in the fair value of the asset. UBS AG uses a rebuttable presumption that such instruments are impaired where there has been a decline in fair value of more than 20% below its original cost or fair value has been below original cost for more than six months.

To the extent a financial asset classified as available for sale is determined to be impaired, the related cumulative net unrealized loss previously recognized in *Other comprehensive income* is reclassified to the income statement within *Other income*. For equity instruments, any further loss is recognized directly in the income statement, whereas for debt instruments, any further loss is recognized in the income statement only if there is additional objective evidence of impairment. After the recognition of an impairment on a financial asset classified as available for sale, increases in the fair value of equity instruments are reported in *Other comprehensive income*. For debt instruments, such increases in the fair value, up to amortized cost in the transaction currency, are recognized in *Other income,* provided that the fair value increase is related to an event occurring after the impairment loss was recorded. Increases in excess of that amount are reported in *Other comprehensive income*.

### j. Netting

UBS AG nets financial assets and liabilities on its balance sheet if (i) it has the unconditional and legally enforceable right to set off the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of UBS AG and all of the counterparties, and (ii) intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Netted positions include, for example, certain derivatives and repurchase and reverse repurchase transactions with various counterparties, exchanges and clearing houses.

In assessing whether UBS AG intends to either settle on a net basis or to realize the asset and settle the liability simultaneously, emphasis is placed on the effectiveness of operational settlement mechanics in eliminating substantially all credit and liquidity exposure between the counterparties. This condition precludes offsetting on the balance sheet for substantial amounts of UBS AG's financial assets and liabilities, even though they may be subject to enforceable netting arrangements. For OTC derivative contracts, balance sheet offsetting is generally only permitted in circumstances in which a market settlement mechanism exists via an exchange or central clearing counterparty, that effectively accomplishes net settlement through a daily exchange of collateral via a cash margining process. For repurchase arrangements and securities financing transactions, balance sheet offsetting may be permitted only to the extent that the settlement mechanism eliminates, or results in insignificant, credit and liquidity risk, and processes the receivables and payables in a single settlement process or cycle.

→ **Refer to Notes 1b and 24 for more information**

**Note 1 Summary of significant accounting policies (continued)**

## k. Hedge accounting

UBS AG uses derivative instruments to manage exposures to interest rate and foreign currency risks, including exposures arising from forecast transactions. Qualifying derivative and non-derivative instruments may be designated as hedging instruments in (i) hedges of the change in fair value of recognized assets or liabilities (fair value hedges), (ii) hedges of the variability in future cash flows attributable to a recognized asset or liability or highly probable forecast transactions (cash flow hedges) or (iii) hedges of a net investment in a foreign operation (net investment hedges).

At the time a financial instrument is designated in a hedge relationship, UBS AG formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction and the methods that will be used to assess the effectiveness of the hedging relationship. Accordingly, UBS AG assesses, both at the inception of the hedge and on an ongoing basis, whether the hedging instruments, primarily derivatives, have been "highly effective" in offsetting changes in the fair value or cash flows associated with the designated risk of the hedged items. A hedge is considered highly effective if the following criteria are met: (i) at inception of the hedge and throughout its life, the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk and (ii) actual results of the hedge are within a range of 80–125%. In the case of hedging forecast transactions, the transaction must have a high probability of occurring and must present an exposure to variations in cash flows that could ultimately affect the reported net profit or loss. UBS AG discontinues hedge accounting when (i) it determines that a hedging instrument is not, or has ceased to be, highly effective as a hedge, (ii) the derivative expires or is sold, terminated or exercised, (iii) the hedged item matures, is sold or repaid or (iv) forecast transactions are no longer deemed highly probable. UBS AG may also discontinue hedge accounting voluntarily.

Hedge ineffectiveness represents the amount by which the changes in the fair value of the hedging instrument differ from changes in the fair value of the hedged item attributable to the hedged risk, or the amount by which changes in the present value of future cash flows of the hedging instrument exceed changes in the present value of expected cash flows of the hedged item. Such ineffectiveness is recorded in current period earnings in *Net trading income*. Interest income and expense on derivatives designated as hedging instruments in effective hedge relationships is included in *Interest income*.

### *Fair value hedges*

For qualifying fair value hedges, the change in the fair value of the hedging instrument is recognized in the income statement along with the change in the fair value of the hedged item that is attributable to the hedged risk. In fair value hedges of interest rate risk, the fair value change of the hedged item attributable to the hedged risk is reflected as an adjustment to the carrying value of the hedged item. If the hedge accounting relationship is terminated for reasons other than the derecognition of the hedged item, the adjustment to the carrying value is amortized to the income statement over the remaining term to maturity of the hedged item using the effective interest rate method. For a portfolio hedge of interest rate risk, the equivalent change in fair value is reflected within *Other assets* or *Other liabilities*. If the hedge relationship is terminated for reasons other than the derecognition of the hedged item, the amount included in *Other assets* or *Other liabilities* is amortized to the income statement over the remaining term to maturity of the hedged items using the straight-line method.

### *Cash flow hedges*

Fair value gains or losses associated with the effective portion of derivatives designated as cash flow hedges for cash flow repricing risk are recognized initially in *Other comprehensive income* within *Equity*. When the hedged forecast cash flows affect profit or loss, the associated gains or losses on the hedging derivatives are reclassified from *Equity* to the income statement.

If a cash flow hedge of forecasted transactions is no longer considered effective, or if the hedge relationship is terminated, the cumulative gains or losses on the hedging derivatives previously reported in *Equity* remain there until the committed or forecasted transactions occur and affect profit or loss. If the forecasted transactions are no longer expected to occur, the deferred gains or losses are reclassified immediately to the income statement.

### *Hedges of net investments in foreign operations*

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Gains or losses on the hedging instrument relating to the effective portion of the hedge are recognized directly in *Equity* (and presented in the statement of changes in equity and statement of comprehensive income under *Foreign currency translation*), while any gains or losses relating to the ineffective and / or undesignated portion (for example, the interest element of a forward contract) are recognized in the income statement. Upon disposal or partial disposal of the foreign operation, the cumulative value of any such gains or losses recognized in *Equity* associated with the entity is reclassified to the income statement.

### *Economic hedges that do not qualify for hedge accounting*

Derivative instruments that are transacted as economic hedges, but do not qualify for hedge accounting, are treated in the same way as derivative instruments used for trading purposes (i.e., realized and unrealized gains and losses are recognized in *Net trading income*), except for the forward points on certain short duration foreign exchange contracts, which are reported in *Net interest income*.

→ **Refer to Note 12 for more information**

**Note 1 Summary of significant accounting policies (continued)**

### l. Embedded derivatives

Derivatives may be embedded in other financial instruments (host contracts). For example, they could be represented by the conversion feature embedded in a convertible bond. Such hybrid instruments arise predominantly from the issuance of certain structured debt instruments. An embedded derivative is generally required to be separated from the host contract and accounted for as a standalone derivative instrument at fair value through profit or loss if (i) the host contract is not carried at fair value with changes in fair value reported in the income statement, (ii) the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract and (iii) the terms of the embedded derivative would meet the definition of a standalone derivative, were they contained in a separate contract.

Typically, UBS AG applies the fair value option to hybrid instruments (refer to item 3b in this Note for more information), in which case bifurcation of an embedded derivative component is not required.

### m. Debt issued

Debt issued is carried at amortized cost, including contingent capital instruments that contain contractual provisions under which the principal amounts would be written down upon either a specified CET1 ratio breach or a determination by FINMA that a viability event has occurred. Such contractual provisions are not derivatives as the underlying is deemed to be a non-financial variable specific to a party to the contract. In contrast, where there is a legal "bail-in" mechanism for write-down or conversion into equity (as is the case, for instance, with senior unsecured debt issued by UBS AG that is subject to write-down or conversion under resolution authority granted to FINMA under Swiss law), such mechanism does not form part of the contractual terms and, therefore, does not affect the amortized cost accounting treatment applied to these instruments. If the debt were to be written down or converted into equity in a future period, this would result in the full or partial derecognition of the financial liabilities, with the difference between the carrying value of the debt written down or converted into equity and the fair value of any equity shares issued recognized in the income statement.

In cases where, as part of UBS AG's risk management activity, fair value hedge accounting is applied to fixed-rate debt instruments carried at amortized cost, their carrying amount is adjusted for changes in fair value related to the hedged exposure. Refer to item 3k for more information on hedge accounting.

Debt issued and subsequently repurchased in relation to market-making or other activities is treated as redeemed. A gain or loss on redemption (depending on whether the repurchase price of the bond is lower or higher than its carrying value) is recorded in *Other income*. A subsequent sale of own bonds in the market is treated as a reissuance of debt.

### n. Own credit

From 1 January 2016 onward, changes in the fair value of financial liabilities designated at fair value through profit or loss related to own credit are recognized in *Other comprehensive income* directly within *Retained earnings* and will not be reclassified to the income statement in future periods.

→ **Refer to Note 1b for more information**

### o. Loan commitments

Loan commitments are arrangements under which clients can borrow stipulated amounts under defined terms and conditions.

Loan commitments that can be canceled at any time by UBS AG at its discretion are neither recognized on the balance sheet nor included in off-balance sheet disclosures.

Loan commitments that cannot be canceled by UBS AG once the commitments are communicated to the beneficiary, or which are revocable only due to automatic cancelation upon deterioration in a borrower's creditworthiness are considered irrevocable and are classified as (i) derivative loan commitments measured at fair value through profit or loss, (ii) loan commitments designated at fair value through profit or loss or (iii) other loan commitments. Other loan commitments are not recorded on the balance sheet, but a provision is recognized through profit or loss if it is probable that a loss has been incurred and a reliable estimate of the amount of the obligation can be made. Any change in the liability relating to these other loan commitments is recorded in the income statement in *Credit loss expense / recovery*.

When a client draws on a commitment, the resulting loan is presented under *Loans*, except for cases where designation at fair value through profit or loss applies.

### p. Financial guarantee contracts

Financial guarantee contracts are contracts that require the issuer to make specified payments to reimburse the holder for an incurred loss because a specified debtor fails to make payments when due in accordance with the terms of a specified debt instrument. UBS AG issues such financial guarantees to banks, financial institutions and other parties on behalf of clients to secure loans, overdrafts and other banking facilities.

Certain issued financial guarantees that are managed on a fair value basis are designated at fair value through profit or loss.

Financial guarantees that are not managed on a fair value basis are initially recognized in the financial statements at fair value and are subsequently measured at the higher of the amount initially recognized less cumulative amortization, and to the extent a payment under the guarantee has become probable, the present value of the expected payment. Any change in the liability relating to probable expected payments resulting from guarantees is recorded in the income statement in *Credit loss expense / recovery*.

## Note 1 Summary of significant accounting policies (continued)

### 4) Fee income

UBS AG earns fee income from a diverse range of services it provides to its clients. Fee income can be divided into two broad categories: (i) fees earned from services that are provided over a certain period of time, such as portfolio management and advisory fees, and (ii) fees earned from providing transaction-type services, such as underwriting fees, corporate finance fees and brokerage fees.

Fees earned from services that are provided over a certain period of time are recognized ratably over the service period, with the exception of performance-linked fees or fee components with specific performance criteria. Such fees are recognized when the performance criteria are fulfilled and when collectibility is reasonably assured.

Fees earned from providing transaction-type services are recognized when the service has been completed and the fee is fixed or determinable, i.e., not subject to refund or adjustment.

Fee income generated from providing a service which does not result in the recognition of a financial instrument is presented within *Net fee and commission income*. Fees generated from the acquisition, issue or disposal of a financial instrument are presented in the income statement in line with the balance sheet classification of that financial instrument.

→ **Refer to Note 4 for more information**

### 5) Cash and cash equivalents

For the purposes of the statement of cash flows, cash and cash equivalents comprise balances with an original maturity of three months or less, including cash, money market paper and balances with central and other banks.

### 6) Equity participation and other compensation plans

*Transfer of deferred compensation plans*

As part of the Group reorganization in 2014, UBS Group AG assumed obligations of UBS AG as grantor in connection with certain outstanding awards under employee share, option, notional fund and deferred cash compensation plans. This section describes the accounting policies applied to these plans during the periods prior to and post the Group reorganization and transfer of deferred compensation plans.

*Equity participation plans*

*Periods prior to the Group reorganization and transfer of deferred compensation plans*

UBS AG has established several equity participation plans that are settled in UBS AG's equity instruments or an amount that is based on the value of such instruments. These awards are generally subject to conditions that require employees to complete a specified period of service and, for performance shares, to satisfy specified performance targets. Compensation expense is recognized, on a per tranche basis, over the service period based on an estimate of the number of instruments expected to vest and is adjusted to reflect actual outcomes. Where the service period is shortened, for example in the case of employees affected by restructuring programs or mutually agreed termination provisions, recognition of expense is accelerated to the termination date.

Where no future service is required, such as for employees who are retirement eligible or who have met certain age and years-of-service criteria, the services are presumed to have been received and compensation expense is recognized immediately on, or prior to, the date of grant. Such awards may remain forfeitable until the legal vesting date if certain non-vesting conditions are not met, such as breach of good-leaver clauses or harmful acts. For equity-settled awards, forfeiture events resulting from breach of a non-vesting condition do not result in an adjustment to expense.

Compensation expense is measured by reference to the fair value of the equity instruments on the date of grant adjusted, when relevant, to take into account the terms and conditions inherent in the award, including dividend rights, transfer restrictions in effect beyond the vesting date, and non-vesting conditions. For equity-settled instruments, fair value is determined at the date of grant and is not remeasured unless its terms are modified such that the fair value immediately after modification exceeds the fair value immediately prior to modification. Any increase in fair value resulting from a modification is recognized as compensation expense, either over the remaining service period or, for vested awards, immediately. For cash-settled awards, fair value is remeasured at each reporting date such that the cumulative expense recognized equals the cash distributed.

→ **Refer to Note 27 for more information**

*Periods post the Group reorganization and transfer of deferred compensation plans*

UBS Group AG has established, and maintains the obligation to settle, several equity participation plans that are granted to employees of UBS AG. UBS AG recognizes the fair value of awards granted to its employees. These awards are generally subject to conditions that require employees to complete a specified period of service and, for performance shares, to satisfy specified performance targets. Compensation expense is recognized, on a per tranche basis, over the service period based on an estimate of the number of instruments expected to vest and is adjusted to reflect actual outcomes. Where the service period is shortened, for example in the case of employees affected by restructuring programs or mutually agreed terminations provisions, recognition of expense is accelerated to the termination date.

**Note 1 Summary of significant accounting policies (continued)**

Where no future service is required, such as for employees who are retirement eligible or who have met certain age and years-of-service criteria, the services are presumed to have been received and compensation expense is recognized immediately on, or prior to, the date of grant. Such awards may remain forfeitable until the legal vesting date if certain non-vesting conditions are not met, such as breach of good-leaver clauses or harmful acts. Forfeiture events resulting from breach of a non-vesting condition do not result in an adjustment to expense.

UBS AG has no obligation to settle the awards and therefore awards over UBS Group AG shares are classified as equity settled share-based payment transactions. Compensation expense is measured by reference to the fair value of UBS Group AG equity instruments on the date of grant adjusted, when relevant, to take into account the terms and conditions inherent in the award, including dividend rights, transfer restrictions in effect beyond the vesting date, and non-vesting conditions. Fair value is determined at the date of grant and is not remeasured unless its terms are modified such that the fair value immediately after modification exceeds the fair value immediately prior to modification. Any increase in fair value resulting from a modification is recognized as compensation expense, either over the remaining service period or, for vested awards, immediately.

→ **Refer to Note 27 for more information**

*Other compensation plans*

The employees of UBS AG are granted deferred compensation plans which are settled in cash or other financial instruments, the amount of which may be fixed or may vary based on the achievement of specified performance conditions or the value of specified underlying assets. Compensation expense is recognized over the period that the employee provides services to become entitled to the award. Where the service period is shortened, for example in the case of employees affected by restructuring programs or mutually agreed termination provisions, recognition of expense is accelerated to the termination date. Where no future service is required, such as for employees who are retirement eligible or who have met certain age and years-of-service criteria, the services are presumed to have been received and compensation expense is recognized immediately on, or prior to, the date of grant. The amount recognized is based on the present value of the amount expected to be paid under the plan and is remeasured at each reporting date, so that the cumulative expense recognized equals the cash or the fair value of respective financial instruments distributed.

→ **Refer to Note 27 for more information**

### 7) Pension and other post-employment benefit plans

UBS AG sponsors various post-employment benefit plans for its employees worldwide, which include defined benefit and defined contribution pension plans, and other post-employment benefits such as medical and life insurance benefits that are payable after the completion of employment.

→ **Refer to Note 26 for more information**

*Defined benefit pension plans*

Defined benefit pension plans specify an amount of benefit that an employee will receive, which usually depends on one or more factors, such as age, years of service and compensation. The defined benefit liability recognized in the balance sheet is the present value of the defined benefit obligation less the fair value of the plan assets at the balance sheet date with changes resulting from remeasurements recorded immediately in *Other comprehensive income*. If the fair value of the plan assets is higher than the present value of the defined benefit obligation, the recognition of the resulting net defined benefit asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. UBS AG applies the projected unit credit method to determine the present value of its defined benefit obligations, the related current service cost and, where applicable, past service cost. The projected unit credit method sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation. These amounts, which take into account the specific features of each plan, including risk sharing between employee and employer, are calculated periodically by independent qualified actuaries.

*Critical accounting estimates and judgments*

The net defined benefit liability or asset at the balance sheet date and the related personnel expense depend on the expected future benefits to be provided, determined using a number of economic and demographic assumptions. A range of assumptions could be applied and different assumptions could significantly alter the defined benefit liability or asset and pension expense recognized. The most significant assumptions include life expectancy, the discount rate, expected salary increases, pension increases, and in addition, for the Swiss plan and one of the US defined benefit pension plans, interest credits on retirement savings account balances. Life expectancy is determined by reference to published mortality tables. The discount rate is determined by reference to the rates of return on high-quality fixed-income investments of appropriate currency and term at the measurement date. The assumption for salary increases reflects the long-term expectations for salary growth and takes into account inflation, seniority, promotion and other relevant factors such as supply and demand in the labor market. A sensitivity analysis for reasonable possible movements in each significant assumption for UBS AG's post-employment obligations is provided within Note 26.

**Note 1 Summary of significant accounting policies (continued)**

*Defined contribution plans*

A defined contribution plan is a pension plan under which UBS AG pays fixed contributions into a separate entity from which post-employment and other benefits are paid. UBS AG has no legal or constructive obligation to pay further contributions if the plan does not hold sufficient assets to pay employees the benefits relating to employee service in the current and prior periods. UBS AG's contributions are expensed when the employees have rendered services in exchange for such contributions. This is generally in the year of contribution. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

*Other post-employment benefits*

UBS AG also provides post-employment medical and life insurance benefits to certain retirees in the US and the UK. The expected costs of these benefits are recognized over the period of employment using the same accounting methodology used for defined benefit pension plans.

8) Income taxes

UBS AG is subject to the income tax laws of Switzerland and those of the non-Swiss jurisdictions in which UBS AG has business operations.

UBS AG's provision for income taxes is composed of current and deferred taxes. Current income taxes represent taxes to be paid or refunded for the current period or previous periods.

Deferred taxes are recognized for temporary differences between the carrying amounts and tax bases of assets and liabilities that will result in deductible amounts in future periods and are measured using the applicable tax rates and laws that will be in effect when such differences are expected to reverse

Deferred tax assets arise from a variety of sources, the most significant being: (i) tax losses that can be carried forward to be used against profits in future years and (ii) expenses recognized in UBS AG's income statement that are not deductible until the associated cash flows occur. Deferred tax assets are recognized only to the extent that it is probable that sufficient taxable profits will be available against which these differences can be used. When an entity or tax group has a history of recent losses, deferred tax assets are only recognized to the extent there are sufficient taxable temporary differences or there is convincing other evidence that sufficient taxable profit will be available against which the unused tax losses can be utilized.

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Deferred tax liabilities are recognized for temporary differences between the carrying amounts of assets and liabilities in the balance sheet that reflect the expectation that certain items will give rise to taxable income in future periods.

Deferred and current tax assets and liabilities are offset when (i) they arise in the same tax reporting group, (ii) they relate to the same tax authority, (iii) the legal right to offset exists and (iv) they are intended to be settled net or realized simultaneously.

Current and deferred taxes are recognized as income tax benefit or expense in the income statement except for current and deferred taxes recognized (i) upon the acquisition of a subsidiary, (ii) for unrealized gains or losses on financial instruments that are classified as available for sale, (iii) for changes in fair value of derivative instruments designated as cash flow hedges, (iv) for remeasurements of defined benefit plans, (v) for certain foreign currency translations of foreign operations, and (vi) for gains and losses on the sale of treasury shares. Amounts relating to points (ii), (iii), (iv) and (v) are recognized in *Other comprehensive income* within *Equity*.

*Critical accounting estimates and judgments*

Tax laws are complex and judgment and interpretations about the application of such laws are required when accounting for income taxes. UBS AG considers the performance of its businesses and the accuracy of historical forecasts and other factors in evaluating the recoverability of its deferred tax assets, including the remaining tax loss carry-forward period, and its assessment of expected future taxable profits in the forecast period used for recognizing deferred tax assets. Estimating future profitability is inherently subjective and is particularly sensitive to future economic, market and other conditions, which are difficult to predict.

The level of deferred tax asset recognition is influenced by management's assessment of UBS AG's future profitability based on relevant business plan forecasts. Existing assessments are reviewed and, if necessary, revised to reflect changed circumstances. This review is conducted annually, in the second half of each year, but adjustments may be made at other times, if required. In a situation where recent losses have been incurred, convincing evidence that there will be sufficient future profitability is required.

If profit forecast assumptions in future periods deviate from the current outlook, the value of UBS AG's deferred tax assets may be affected. Recognition of any decrease in the carrying amount of deferred tax assets in the income statement would reduce net profit and equity but would not affect cash flows.

Judgment is also required to forecast the expected outcome of uncertain tax positions that may require the interpretation of tax laws and the resolution of any income tax-related appeals or litigation that are incorporated into the estimate of income and deferred tax.

→ **Refer to Note 8 for more information**

**Note 1 Summary of significant accounting policies (continued)**

### 9) Investment in associates

Entities where UBS AG has significant influence over the financial and operating policies of the entity, but does not have control, are classified as investments in associates and accounted for under the equity method of accounting. Typically, UBS AG has significant influence when it holds or has the ability to hold between 20% and 50% of a company's voting rights. Investments in associates are initially recognized at cost, and the carrying amount is increased or decreased after the date of acquisition to recognize UBS AG's share of the investee's comprehensive income and any impairment losses.

→ **Refer to Note 28 for more information**

### 10) Property, equipment and software

Property, equipment and software includes own-used properties, leasehold improvements, information technology hardware, externally purchased and internally generated software, as well as communication and other similar equipment. Property, equipment and software is carried at cost less accumulated depreciation and impairment losses, and is reviewed at each reporting date for indication for impairment. Software development costs are capitalized only when the costs can be measured reliably and it is probable that future economic benefits will arise. Depreciation of property, equipment and software begins when they are available for use, that is, when they are in the location and condition necessary for them to be capable of operating in the manner intended by management. Depreciation is calculated on a straight-line basis over an asset's estimated useful life. The estimated useful economic lives of UBS AG's property, equipment and software are:

– properties, excluding land: ≤ 67 years
– IT hardware and communication equipment: ≤ 7 years
– other machines and equipment: ≤ 10 years
– software: ≤ 10 years
– leasehold improvements: shorter of the lease term or the economic life of asset (typically ≤ 20 years)

→ **Refer to Notes 1b and 14 for more information**

### 11) Goodwill and intangible assets

Goodwill represents the excess of the cost of an acquisition over the fair value of UBS AG's share of net identifiable assets of the acquired entity at the date of the acquisition. Goodwill is not amortized, but at the end of each reporting period, UBS AG assesses whether there is any indication that goodwill is impaired. If such indicators exist, UBS AG is required to test the goodwill for impairment. Irrespective of whether there is any indication of impairment, UBS AG tests goodwill for impairment annually. UBS AG considers the segments, as reported in Note 2a, as separate cash-generating units, since this is the level at which the performance of investments is reviewed and assessed by management. The impairment test is performed for each segment to which goodwill is allocated by comparing the recoverable amount, based on its value-in-use, to the carrying amount of the respective segment. An impairment charge is recognized if the carrying amount exceeds the recoverable amount.

If the estimated earnings and other assumptions in future periods deviate from the current outlook, the value of UBS AG's goodwill may become impaired in the future, giving rise to losses in the income statement. Recognition of any impairment of goodwill would reduce net profit and equity, but would not affect cash flows.

Intangible assets are comprised of separately identifiable intangible items arising from business combinations and certain purchased trademarks and similar items. Intangible assets are recognized at cost. The cost of an intangible asset acquired in a business combination is its fair value at the date of acquisition. Intangible assets with a finite useful life are amortized using the straight-line method over their estimated useful life, generally not exceeding 20 years. In rare cases, intangible assets can have an indefinite useful life, in which case they are not amortized. At each reporting date, intangible assets are reviewed for indications of impairment. If such indications exist, the intangible assets are analyzed to assess whether their carrying amount is fully recoverable. An impairment loss is recognized if the carrying amount exceeds the recoverable amount.

#### *Critical accounting estimates and judgments*

UBS AG's methodology for goodwill impairment testing is based on a model which is most sensitive to the following key assumptions: (i) forecasts of earnings available to shareholders in years one to three, (ii) changes in the discount rates and (iii) changes in the long-term growth rate. Key assumptions used to determine the recoverable amounts of each segment are tested for sensitivity by applying a reasonably possible change to those assumptions. Refer to Note 15 for the discussion of how the reasonably possible changes in those key assumptions may affect the results delivered by UBS AG's model for goodwill impairment testing.

→ **Refer to Notes 2 and 15 for more information**

### 12) Provisions and contingent liabilities

Provisions are liabilities of uncertain timing or amount, and are recognized when (i) UBS AG has a present obligation as a result of a past event, (ii) it is probable that an outflow of resources will be required to settle the obligation and (iii) a reliable estimate of the amount of the obligation can be made.

The majority of UBS AG's provisions relate to litigation, regulatory and similar matters, restructuring, employee benefits, real estate and loan commitments and guarantees. Provisions that are similar in nature are aggregated to form a class, while the remaining provisions, including those of less significant amounts, are presented under *Other provisions*. Provisions are presented separately on the balance sheet and, when they are no longer considered uncertain in timing or amount, are reclassified to *Other liabilities – Other*.

**Note 1 Summary of significant accounting policies (continued)**

UBS AG recognizes provisions for litigation, regulatory and similar matters when, in the opinion of management after seeking legal advice, it is more likely than not that UBS AG has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against UBS AG, but are nevertheless expected to be, based on UBS AG's experience with similar asserted claims.

Restructuring provisions are recognized when a detailed and formal restructuring plan has been approved and a valid expectation has been raised that the restructuring will be carried out, either through commencement of the plan or announcements to affected employees.

Provisions are recognized for lease contracts if the unavoidable costs of a contract exceed the benefits expected to be received under it (onerous lease contracts). For example, this may occur when a significant portion of a leased property is expected to be vacant for an extended period.

Provisions for employee benefits are recognized mainly in respect of service anniversaries and sabbatical leave.

Provisions are recognized at the best estimate of the consideration required to settle the present obligation at the balance sheet date. Such estimates are based on all available information and are revised over time as more information becomes available. If the effect of the time value of money is material, provisions are discounted and measured at the present value of the expenditure expected to settle or discharge the obligation, using a rate that reflects the current market assessments of the time value of money and the risks specific to the obligation.

When all conditions required to recognize a provision are not met, a contingent liability is disclosed, unless the likelihood of an outflow of resources is remote. Contingent liabilities are also disclosed for possible obligations that arise from past events whose existence will be confirmed only by uncertain future events not wholly within the control of UBS AG. Such disclosures are not made if it is not practicable to do so.

*Critical accounting estimates and judgments*

Recognition of provisions often involves significant judgment in assessing the existence of an obligation that results from past events and in estimating the probability, timing and amount of any outflows of resources. This is particularly the case for litigation, regulatory and similar matters, which, due to their nature, are subject to many uncertainties making their outcome difficult to predict. Such matters may involve unique fact patterns or novel legal theories, proceedings that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Determining whether an obligation exists as a result of a past event and estimating the probability, timing and amount of any potential outflows is based on a variety of assumptions, variables, and known and unknown uncertainties.

The amount of any provision recognized is sensitive to the assumptions used and there could be a wide range of possible outcomes for any particular matter.

Statistical or other quantitative analytical tools are of limited use in determining whether to establish or determine the amount of provisions in the case of litigation, regulatory or similar matters. Furthermore, information currently available to management may be incomplete or inaccurate, increasing the risk of erroneous assumptions with regard to the future development of such matters. Management regularly reviews all the available information regarding such matters, including legal advice which is a significant consideration, to assess whether the recognition criteria for provisions have been satisfied and to determine the timing and amount of any potential outflows.

→ **Refer to Note 20 for more information**

### 13) Foreign currency translation

Transactions denominated in a foreign currency are translated into the functional currency of the reporting entity at the spot exchange rate on the date of the transaction. At the balance sheet date, all monetary assets and liabilities denominated in foreign currency are translated into the functional currency using the closing exchange rate. Non-monetary items measured at historical cost are translated at the exchange rate on the date of the transaction. Foreign currency translation differences on non-monetary financial assets classified as available for sale are generally recorded directly in *Equity* until the asset is sold or becomes impaired. However, translation differences on available for sale monetary financial assets are reported in *Net trading income* on an amortized-cost basis, along with all other foreign currency translation differences on monetary assets and liabilities.

Upon consolidation, assets and liabilities of foreign operations are translated into Swiss francs (CHF), UBS AG's presentation currency, at the closing exchange rate on the balance sheet date, and income and expense items are translated at the average rate for the period. The resulting foreign currency translation differences attributable to shareholders are recognized directly in *Foreign currency translation* within *Equity,* which forms part of *Total equity attributable to shareholders*, whereas the foreign currency translation differences attributable to non-controlling interests are shown within *Equity attributable to non-controlling interests*.

**Note 1 Summary of significant accounting policies (continued)**

When a foreign operation is disposed or partially disposed of and UBS AG loses control over the foreign operation, the cumulative amount of foreign currency translation differences within *Total equity attributable to shareholders* and *Equity attributable to non-controlling interests* related to that foreign operation is reclassified to the income statement as part of the gain or loss on disposal. When UBS AG disposes of a portion of its interest in a subsidiary that includes a foreign operation but retains control, the related portion of the cumulative currency translation balance is reclassified to *Equity attributable to non-controlling interests*.

→ **Refer to Note 34 for more information**

## 14) Equity, treasury shares and contracts on UBS AG shares

### *Non-controlling interests and preferred noteholders*

*Net profit* and *Equity* are presented including non-controlling interests and preferred noteholders. *Net profit* is split into *Net profit attributable to shareholders, Net profit attributable to non-controlling interests* and *Net profit attributable to preferred noteholders*. *Equity* is split into *Equity attributable to shareholders, Equity attributable to non-controlling interests* and *Equity attributable to preferred noteholders*.

### *UBS AG shares held (treasury shares)*

UBS AG shares held by UBS AG are presented in *Equity* as *Treasury shares* at their acquisition cost and are deducted from *Equity* until they are canceled or reissued. The difference between the proceeds from sales of treasury shares and their weighted average cost (net of tax, if any) is reported as *Share premium*.

### *Net cash settlement contracts*

Prior to the share-for-share exchange that took place in 2014, UBS AG issued contracts on own shares that required net cash settlement, or provided the counterparty or UBS AG with a settlement option which included a choice of settling net in cash. These contracts were classified as held for trading, with changes in fair value reported in the income statement as *Net trading income*.

Following the share-for-share exchange, these contracts continue to be accounted for in the same manner, however, they are no longer classified as contracts on own shares.

## 15) Leasing

UBS AG enters into lease contracts, or contracts that include lease components, predominantly of premises and equipment, and primarily as lessee. Leases that transfer substantially all the risks and rewards, but not necessarily legal title in the underlying assets, are classified as finance leases. All other leases are classified as operating leases. UBS AG is not a lessee in any material finance leases.

Lease contracts classified as operating leases where UBS AG is the lessee include non-cancellable long-term leases of office buildings in most UBS AG locations. Operating lease rentals payable are recognized as an expense on a straight-line basis over the lease term, which commences with control of the physical use of the property. Lease incentives are treated as a reduction of rental expense and are recognized on a consistent basis over the lease term.

Where UBS AG acts as lessor under a finance lease, a receivable is recognized in *Loans* at an amount equal to the present value of the aggregate of the minimum lease payments plus any unguaranteed residual value that UBS AG expects to recover at the end of the lease term. Initial direct costs are also included in the initial measurement of the lease receivable. Lease payments received during the lease term are allocated to repayment of the outstanding receivable and interest income to reflect a constant periodic rate of return on UBS AG's net investment using the interest rate implicit in the lease. UBS AG reviews the estimated unguaranteed residual value annually, and if the estimated residual value to be realized is less than the amount assumed at lease inception, a loss is recognized for the expected shortfall.

Certain arrangements do not take the legal form of a lease but convey a right to use an asset in return for a payment or series of payments. For such arrangements, UBS AG determines at the inception of the arrangement whether the fulfillment of the arrangement is dependent on the use of a specific asset or assets and, if so, the arrangement is accounted for as a lease.

→ **Refer to Notes 10 and 31 for more information**

**Note 1 Summary of significant accounting policies (continued)**

## b) Changes in accounting policies, comparability and other adjustments

*Own credit*

On 1 January 2016, UBS AG adopted the own credit presentation requirements of IFRS 9, *Financial Instruments*. From this date onward, changes in the fair value of financial liabilities designated at fair value through profit or loss related to own credit are recognized in *Other comprehensive income* directly within *Retained earnings*. As UBS AG does not hedge changes in own credit arising on financial liabilities designated at fair value, presenting own credit within *Other comprehensive income* does not create or increase an accounting mismatch in the income statement. The unrealized and any realized own credit recognized in *Other comprehensive income* will not be reclassified to the income statement in future periods. Changes in own credit presented in prior periods have not been restated and remain within *Net trading income*.

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*Balance sheet classification of newly purchased high-quality liquid debt securities*

Starting 2016, UBS AG generally classifies newly purchased debt securities held as high-quality liquid assets (HQLA), and managed by Corporate Center – Group Asset and Liability Management (Group ALM), as either financial assets designated at fair value through profit or loss or financial assets held to maturity. Debt securities acquired prior to 2016 and held for liquidity purposes remain classified as available for sale financial assets.

Most of the HQLA debt securities purchased since the beginning of 2016 are classified as financial assets designated at fair value through profit or loss and are intended to reduce accounting mismatches by ensuring that changes in the fair value of the securities are recognized in the income statement in line with the associated interest rate derivatives used for risk management purposes. A portion of HQLA debt securities are classified as financial assets held to maturity.

## Note 1 Summary of significant accounting policies (continued)

*Interest rate swaps converted to a settlement model*

In 2016, UBS AG elected to convert its interest rate swaps (IRS) transacted with the London Clearing House and Japan Securities Clearing Corporation from the previous collateral model to a settlement model. The IRS are now legally settled on a daily basis, resulting in derecognition of the associated assets and liabilities. Previously, UBS AG applied IAS 32 netting principles to offset the fair value of IRS with the associated variation margin. Gross cash collateral receivables and payables on derivative instruments and corresponding netting presented in Note 24 decreased by CHF 64 billion as of 31 December 2016, with no change to net cash collateral receivables and payables on derivative instruments recognized on the balance sheet. Consequently, the move to a settlement model resulted in a significant decrease in the fair value of interest rate swaps with the London Clearing House designated as hedging instruments.

→ **Refer to Notes 12 and 24 for more information**

*Derecognition of exchange-traded derivative client cash balances from UBS AG's balance sheet*

In accordance with UBS AG's accounting policy, client cash balances associated with derivatives clearing and execution services are not recognized on the balance sheet if, through contractual agreement, regulation or practice, UBS AG neither obtains benefits from nor controls the client cash balances. These conditions are considered to have been met when (i) UBS AG is not permitted to reinvest client cash balances, (ii) interest paid by central counterparties (CCPs), brokers or deposit banks on cash deposits forms part of the client cash balances with deductions being made solely as compensation for clearing and execution services provided, (iii) UBS AG does not guarantee and is not liable to clients for the performance of the CCP, broker or deposit bank and (iv) the client cash balances are legally isolated from UBS AG's estate.

During 2016, UBS AG formally and legally waived certain rights available to it under the rules of the US Commodity Futures Trading Commission that had previously enabled it to invest certain client cash balances in other assets, making them a source of benefit to UBS AG. As a result, UBS AG derecognized related client cash balances. Consequently, *Cash collateral receivables on derivative instruments* decreased by CHF 2.5 billion, *Due from banks* decreased by CHF 0.2 billion and *Cash collateral payables on derivative instruments* decreased by CHF 2.7 billion as of 31 December 2016.

*Transfer of the Risk Exposure Management function from Corporate Center – Non-core and Legacy Portfolio to Corporate Center – Group ALM*

Consistent with changes in the manner in which operating segment performance is assessed, UBS AG transferred in 2016 the Risk Exposure Management (REM) function from Corporate Center – Non-core and Legacy Portfolio to Corporate Center – Group ALM to further harmonize REM risk management responsibility with the reporting structure and align it more closely with other activities performed by Corporate Center – Group ALM.

REM primarily performs risk management over credit, debit and funding valuation adjustments for UBS AG's over-the-counter derivatives portfolio. Prior-period segment profit and loss information was restated to reflect this transfer, which had no impact at a UBS AG level. In Note 2, gross revenues from REM activities are now presented in Corporate Center – Group ALM within *Net interest income* and *Non-interest income*. Revenue allocations from REM to business divisions and other Corporate Center units are presented within Allocations from Corporate Center – Group ALM to business divisions and other Corporate Center units. There was no effect on operating profit before tax for any segment for any period from this restatement. Prior-period information for balance sheet assets has not been restated, as the effect would not have been material.

*Changes to statement of changes in equity*

In 2016, UBS AG refined the presentation of effects from share-based compensation on share premium and treasury shares in the statement of changes in equity.

The new disclosure line *Delivery of treasury shares under share-based compensation plans,* reflecting the average cost of treasury shares, provides the effect on share premium and treasury shares resulting from the delivery of treasury shares to employees. Also, the effects from *Share-based compensation expensed in the income statement* and *Other disposal of treasury shares* are now presented separately. The former disclosure lines *Disposal of treasury shares, Treasury share gains / (losses)* and *Employee share and share option plans* have been removed.

These changes did not affect total equity or any components of equity. Prior-period information has been adjusted accordingly.

*Changes to the estimated useful life of certain IT hardware and communication equipment and software*

In 2016, UBS AG extended the estimated useful life for certain IT hardware and communication equipment and software from five to seven years, resulting in CHF 16 million and CHF 26 million lower depreciation expenses in 2016, respectively. These changes are expected to result in approximately CHF 120 million and CHF 60 million lower depreciation expenses in 2017 and 2018, respectively.

*Annual Improvements to IFRSs 2012 – 2014 Cycle; Amendments to IFRS 11, Joint Arrangements; IAS 16, Property, Plant and Equipment; IAS 38, Intangible Assets; and IAS 1, Presentation of Financial Statements*

In 2016, UBS AG adopted a number of interpretations and amendments to standards, that did not have a material impact on UBS AG's financial statements.

**Note 1 Summary of significant accounting policies (continued)**

## c) International Financial Reporting Standards and Interpretations to be adopted in 2017 and later and other adjustments

*IFRS 9, Financial Instruments*
In July 2014, the IASB published the final version of IFRS 9, *Financial Instruments*. The standard reflects the classification and measurement, impairment and hedge accounting phases of the IASB's project to replace IAS 39, Financial Instruments: Recognition and Measurement.

IFRS 9 requires all financial assets, except equity instruments, to be classified at amortized cost, fair value through other comprehensive income (OCI) or fair value through profit or loss, on the basis of the entity's business model for managing the financial assets and its contractual cash flow characteristics. If a financial asset meets the criteria to be measured at amortized cost or at fair value through OCI measurement, it can be designated at fair value through profit or loss under the fair value option if doing so would significantly reduce or eliminate an accounting mismatch. Equity instruments that are not held for trading may be accounted for at fair value through OCI, with no subsequent reclassification of realized gains or losses to the income statement, while all other equity instruments will be accounted for at fair value through profit or loss. IFRS 9 classification and measurement requirements for liabilities are unchanged except that any gain or loss arising on a financial liability designated at fair value through profit or loss that is attributable to changes in the issuer's own credit risk (own credit) is presented in OCI and not recognized in the income statement.

IFRS 9 introduces a forward-looking expected credit loss (ECL) approach, replacing the incurred loss impairment approach for financial instruments in IAS 39, and the loss-provisioning approach for financial guarantees and loan commitments in IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*. Expected credit losses are required to be recognized in profit or loss for all financial assets measured at amortized cost, debt instruments measured at fair value through OCI, lease receivables, financial guarantees and loan commitments. A 12-month expected credit loss is generally recognized on inception, with a lifetime credit loss required if a significant increase in credit risk (SICR) arises. A lifetime loss allowance is always recognized for credit-impaired financial assets.

IFRS 9 also includes an optional revised hedge accounting model, which further aligns the accounting treatment with the risk management practices.

UBS AG early adopted the own credit presentation change in the first quarter of 2016 and will adopt the classification and measurement and impairment changes on 1 January 2018 in line with the mandatory effective date. UBS AG is still assessing whether it will adopt the optional IFRS 9 hedge accounting requirements pending the IASB completing their project on macro hedge accounting strategies. In line with IFRS 9, UBS AG does not intend to restate prior periods and will recognize the difference between carrying amounts as of 31 December 2017 and those on adoption of IFRS 9 on 1 January 2018 in opening retained earnings.

UBS AG has assessed all material positions under the revised classification and measurement requirements and has identified certain debt instruments that will not qualify for amortized cost accounting but will be measured at fair value through profit or loss under IFRS 9. However, this is not expected to have significant effects on UBS AG's financial statements as the instruments are predominantly collateralized short-term lending arrangements with no material differences between their amortized cost value and fair value. In addition, UBS AG is monitoring the IASB's project to amend IFRS 9 to allow for basic lending arrangements with symmetrical break clauses to continue to qualify for amortized cost accounting. These clauses are common features in Swiss private mortgages as a consequence of Swiss law and in Swiss corporate lending due to market practice, and may result in compensation for early termination being paid by either the borrower or UBS AG. The IASB is expected to issue an exposure draft in April 2017, effective 1 January 2018 in line with IFRS 9's effective date. Based on the anticipated amendments, UBS AG expects that its private mortgages and corporate loans can continue to be measured at amortized cost.

Overall, the level of credit losses is expected to increase under IFRS 9 alongside additional income statement volatility due to the use of uncertain forward-looking assumptions and the application of the SICR approach. Initial ECL results calculated for key portfolios in a prototype environment with preliminary models and scenarios, indicate an increase in credit losses that should not have a significant impact on equity on adoption, due to the relatively short contractual maturities, the high quality of UBS AG's loan book and the current benign credit environment. Actual results on 1 January 2018 may differ significantly given the preliminary status of the models and data included in the prototype and the possibility of changes in the macroeconomic environment. UBS AG continues to monitor the potential effects of IFRS 9 on its regulatory capital requirements, but does not expect any impact to be material.

→ **Refer to Note 1b for more information on own credit**

**Note 1 Summary of significant accounting policies (continued)**

*IFRS 15, Revenue from Contracts with Customers*

In May 2014, the IASB issued IFRS 15, *Revenue from Contracts with Customers* replacing IAS 18 *Revenue*. IFRS 15 establishes principles for revenue recognition that apply to all contracts with customers except those relating to financial instruments, leases and insurance contracts and requires an entity to recognize revenue as performance obligations are satisfied. In particular, the standard now specifies that variable consideration is only recognized to the extent that it is highly probable that a significant reversal will not occur when the uncertainty associated with the variable consideration is subsequently resolved. This may affect when certain performance-based and asset-based fees can be recognized.

It also provides guidance on when revenues and expenses should be presented on a gross or net basis and establishes a cohesive set of disclosure requirements for information on the nature, amount, timing and uncertainty of revenue and cash flows from contracts with customers.

UBS AG will adopt the standard as of its mandatory effective date on 1 January 2018 and will apply it on a modified retrospective basis, recognizing the cumulative effect of initially applying the standard as an adjustment to the opening balance of retained earnings. UBS AG continues to assess the impact of the new standard on its financial statements, but currently does not expect any impact to be material.

*IFRS 16, Leases*

In January 2016, the IASB issued IFRS 16*, Leases,* which replaces IAS 17, *Leases,* and will come into effect on 1 January 2019. The standard substantially changes how lessees must account for operating lease commitments, requiring an on-balance sheet liability with a corresponding right-of-use asset to be recognized on the balance sheet, compared with the current off-balance sheet treatment of such leases. Early adoption is permitted for companies that also apply IFRS 15, *Revenue from Contracts with Customers*. UBS AG expects to report an increase in assets and liabilities from adoption in line with its operating lease commitments as at 1 January 2019.

→ **Refer to Note 31 for more information**

*Amendments to IAS 12, Income Taxes*

In January 2016, the IASB issued narrow-scope amendments to IAS 12*, Income Taxes,* clarifying how to account for deferred tax assets related to debt instruments measured at fair value. Entities are required to apply the amendments for annual periods beginning on or after 1 January 2017. UBS AG expects that the adoption of these amendments will not have a material impact on its financial statements.

*Amendments to IAS 7, Statement of Cash Flows*

In January 2016, the IASB issued amendments to IAS 7, *Statement of Cash Flows,* which, among other things, require companies to provide information about changes in their financial liabilities arising from financing activities, including changes from cash flows and non-cash changes, such as foreign exchange gains or losses. UBS AG will adopt the amendments in the first quarter of 2017.

*Amendments to IFRS 2, Share-based Payment*

In June 2016, the IASB issued amendments to IFRS 2, *Share-based Payment*, which are mandatorily effective as of 1 January 2018, with early adoption permitted. The amendments require that the approach used to account for vesting and non-vesting conditions when measuring cash-settled share-based payments is consistent with that used for equity-settled share-based payments. The amendments also clarify the classification of share-based payments settled net of withholding tax as well as the accounting consequences resulting from a modification of share-based payments from cash-settled to equity-settled. UBS AG expects that the adoption of these amendments will not have a material impact on its financial statements.

*IFRIC 22, Foreign Currency Transactions and Advance Consideration*

In December 2016, the IFRS Interpretations Committee of the IASB issued IFRIC Interpretation 22, *Foreign Currency Transactions and Advance Consideration*, which clarifies that the date of the transaction for the purpose of determining the exchange rate to apply on initial recognition of the related asset, expense or income, is the date on which the entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. Entities are required to apply IFRIC 22 for annual periods beginning on or after 1 January 2018. UBS AG expects that the adoption of this IFRS Interpretation will not have a material impact on its financial statements.

## Note 2a Segment reporting

The operational structure of UBS AG is comprised of Corporate Center and five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank.

### Wealth Management

Wealth Management provides comprehensive advice and tailored financial services to wealthy private clients around the world, except those served by Wealth Management Americas. Its clients benefit from the full spectrum of resources that UBS AG as a global firm can offer, including banking and lending solutions, wealth planning, investment management solutions and corporate finance advice. Wealth Management's guided architecture model gives clients access to a wide range of products from the world's leading third-party institutions that complement its own products.

### Wealth Management Americas

Wealth Management Americas provides advice-based solutions through financial advisors who deliver a fully integrated set of products and services specifically designed to address the needs of their clients. Its business is primarily domestic US but includes Canada and international business booked in the US.

### Personal & Corporate Banking

Personal & Corporate Banking provides comprehensive financial products and services to private, corporate and institutional clients in Switzerland and is among the leading players in the private and corporate loan market in Switzerland, with a well-collateralized and conservatively managed lending portfolio.

Its business is a central element of UBS AG's universal bank delivery model in Switzerland. Personal & Corporate Banking works with the wealth management, investment bank and asset management businesses to ensure that clients receive the best products and solutions for their specific financial needs. Personal & Corporate Banking is also an important source of growth for other business divisions in Switzerland through client referrals. In addition, Personal & Corporate Banking manages a substantial part of UBS AG's Swiss infrastructure and banking products platform, both of which are leveraged across UBS AG.

### Asset Management

Asset Management provides investment management products and services, platform solutions and advisory support to institutions, wholesale intermediaries and wealth management clients around the world, with an onshore presence in 22 countries. Asset management is a leading fund house in Europe, the largest mutual fund manager in Switzerland and one of the largest fund of hedge funds and real estate investment managers in the world. Its global investment capabilities include all major traditional and alternative asset classes.

### Investment Bank

The Investment Bank is present in over 35 countries, with principal offices in all major financial centers, providing investment advice, financial solutions and capital markets access. It serves corporate, institutional and wealth management clients across the globe and forms a synergetic partnership with UBS AG's wealth management, personal and corporate banking and asset management businesses.

The business division is organized into Corporate Client Solutions and Investor Client Services and also includes UBS AG Securities Research.

### Corporate Center

Corporate Center is comprised of Services, Group Asset and Liability Management (Group ALM) and Non-core and Legacy Portfolio.

Services consists of the Group Chief Operating Officer area (Group Corporate Services, Group Operations, Group Sourcing, Group Technology), Group Finance, Group Legal, Group Human Resources, Group Risk Control, Group Communications and Branding, Group Regulatory and Governance, and UBS and Society.

Group ALM manages the structural risks of UBS AG's balance sheet, including interest rate risk in the banking book, currency risk and collateral risk, as well as the risks associated with UBS AG's liquidity and funding portfolios. Group ALM also seeks to optimize UBS AG's financial performance by better matching assets and liabilities within the context of UBS AG's liquidity, funding and capital targets. Group ALM serves all business divisions and other Corporate Center units through three main risk management areas, and its risk management is fully integrated into UBS AG's risk governance framework.

Non-core and Legacy Portfolio is comprised of the positions from businesses that were part of the Investment Bank prior to its restructuring and is overseen by a committee chaired by the Chief Risk Officer.

## Note 2a Segment reporting (continued)

| CHF million | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center – Services | Corporate Center – Group ALM | Corporate Center – Non-core and Legacy Portfolio | UBS AG |
|---|---|---|---|---|---|---|---|---|---|
| **For the year ended 31 December 2016** | | | | | | | | | |
| Net interest income | 1,932 | 1,347 | 1,892 | (33) | 1,006 | (322) | 559 | 3 | 6,383 |
| Non-interest income | 4,975 | 6,320 | 1,768 | 1,957 | 6,951 | 250 | (229) | 84 | 22,075 |
| Allocations from CC – Group ALM to business divisions and other CC units | 389 | 118 | 332 | 7 | (260) | 36 | (512) | (110) | 0 |
| Income[1] | 7,296 | 7,785 | 3,990 | 1,931 | 7,697 | (36) | (183) | (23) | 28,458 |
| Credit loss (expense) / recovery | (5) | (3) | (6) | 0 | (11) | 0 | 0 | (13) | (37) |
| Total operating income | 7,291 | 7,782 | 3,984 | 1,931 | 7,686 | (36) | (183) | (36) | 28,421 |
| Personnel expenses | 2,348 | 4,819 | 843 | 727 | 3,081 | 3,674 | 31 | 66 | 15,591 |
| General and administrative expenses | 653 | 597 | 286 | 242 | 852 | 4,312 | 17 | 731 | 7,690 |
| Services (to) / from Corporate Center and other business divisions | 2,348 | 1,235 | 1,079 | 505 | 2,757 | (8,156) | (49) | 280 | 0 |
| *of which: services from CC – Services* | *2,256* | *1,221* | *1,186* | *530* | *2,667* | *(8,196)* | *110* | *225* | *0* |
| Depreciation and impairment of property, equipment and software | 2 | 2 | 15 | 1 | 21 | 938 | 0 | 0 | 980 |
| Amortization and impairment of intangible assets[2] | 4 | 50 | 0 | 4 | 12 | 21 | 0 | 0 | 91 |
| Total operating expenses[3] | 5,355 | 6,702 | 2,224 | 1,480 | 6,724 | 790 | (1) | 1,077 | 24,352 |
| **Operating profit / (loss) before tax** | **1,936** | **1,081** | **1,761** | **451** | **962** | **(826)** | **(182)** | **(1,113)** | **4,069** |
| Tax expense / (benefit) | | | | | | | | | 781 |
| **Net profit / (loss)** | | | | | | | | | **3,288** |
| **Additional Information** | | | | | | | | | |
| Total assets | 115,539 | 65,882 | 139,945 | 12,026 | 242,388 | 23,813 | 267,275 | 68,485 | 935,353 |
| Additions to non-current assets | 26 | 4 | 23 | 1 | 3 | 1,741 | 0 | 0 | 1,798 |

1 Impairments of financial assets available for sale for the year ended 31 December 2016 totaled CHF 5 million, of which CHF 3 million was recorded in Asset Management. 2 Refer to Note 15 for more information. 3 Refer to Note 30 for information on restructuring expenses.

## Note 2a Segment reporting (continued)[1]

| CHF million | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center – Services | Corporate Center – Group ALM | Corporate Center – Non-core and Legacy Portfolio | UBS AG |
|---|---|---|---|---|---|---|---|---|---|
| **For the year ended 31 December 2015** | | | | | | | | | |
| Net interest income | 1,825 | 1,067 | 1,890 | (34) | 1,573 | (337) | 724 | 21 | 6,729 |
| Non-interest income | 5,859 | 6,213 | 1,603 | 2,077 | 7,525 | 434 | 383 | (101) | 23,993 |
| Allocations from CC – Group ALM to business divisions and other CC units | 471 | 104 | 421 | 15 | (211) | 145 | (832) | (114) | 0 |
| Income[2] | 8,155 | 7,384 | 3,913 | 2,057 | 8,889 | 243 | 275 | (195) | 30,721 |
| Credit loss (expense) / recovery | 0 | (4) | (37) | 0 | (68) | 0 | 0 | (8) | (117) |
| Total operating income | 8,155 | 7,381 | 3,876 | 2,057 | 8,821 | 243 | 275 | (203) | 30,605 |
| Personnel expenses | 2,532 | 4,579 | 873 | 729 | 3,220 | 3,875 | 30 | 116 | 15,954 |
| General and administrative expenses | 650 | 848 | 264 | 233 | 882 | 4,517 | 21 | 804 | 8,219 |
| Services (to) / from Corporate Center and other business divisions | 2,289 | 1,209 | 1,077 | 502 | 2,816 | (8,214) | (57) | 379 | 0 |
| *of which: services from CC – Services* | *2,209* | *1,193* | *1,180* | *523* | *2,730* | *(8,243)* | *96* | *313* | *0* |
| Depreciation and impairment of property, equipment and software | 5 | 3 | 17 | 2 | 26 | 866 | 0 | 0 | 918 |
| Amortization and impairment of intangible assets[3] | 3 | 51 | 0 | 8 | 24 | 21 | 0 | 0 | 107 |
| Total operating expenses[4] | 5,478 | 6,689 | 2,231 | 1,475 | 6,969 | 1,065 | (6) | 1,298 | 25,198 |
| **Operating profit / (loss) before tax** | **2,676** | **692** | **1,646** | **583** | **1,852** | **(822)** | **281** | **(1,501)** | **5,407** |
| Tax expense / (benefit) | | | | | | | | | (908) |
| **Net profit / (loss)** | | | | | | | | | **6,314** |
| **Additional Information** | | | | | | | | | |
| Total assets | 119,850 | 60,993 | 141,174 | 12,874 | 253,571 | 22,866 | 237,560 | 94,369 | 943,256 |
| Additions to non-current assets | 6 | 4 | 14 | 1 | 18 | 1,844 | 0 | 1 | 1,888 |

1 Figures in this table may differ from those originally published in quarterly and annual reports due to adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period. Refer to Note 1b for more information. 2 Impairments of financial assets available for sale for the year ended 31 December 2015 totaled CHF 1 million, all in Wealth Management. 3 Refer to Note 15 for more information. 4 Refer to Note 30 for information on restructuring expenses.

## Note 2a Segment reporting (continued)[1]

| CHF million | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center – Services | Corporate Center – Group ALM | Corporate Center – Non-core and Legacy Portfolio | UBS AG |
|---|---|---|---|---|---|---|---|---|---|
| **For the year ended 31 December 2014** | | | | | | | | | |
| Net interest income | 1,693 | 864 | 1,801 | (39) | 1,583 | (338) | 731 | 258 | 6,555 |
| Non-interest income | 5,726 | 6,004 | 1,575 | 1,914 | 6,823 | 157 | 101 | (751) | 21,549 |
| Allocations from CC – Group ALM to business divisions and other CC units | 481 | 116 | 461 | 27 | (100) | 217 | (831) | (371) | 0 |
| Income[2] | 7,902 | 6,984 | 3,836 | 1,902 | 8,306 | 35 | 2 | (863) | 28,104 |
| Credit loss (expense) / recovery | (1) | 15 | (95) | 0 | 2 | 0 | 0 | 2 | (78) |
| Total operating income | 7,901 | 6,998 | 3,741 | 1,902 | 8,308 | 35 | 2 | (862) | 28,026 |
| Personnel expenses | 2,467 | 4,363 | 850 | 643 | 2,964 | 3,843 | 26 | 124 | 15,280 |
| General and administrative expenses | 918 | 550 | 293 | 305 | 2,671 | 4,113 | 22 | 505 | 9,377 |
| Services (to) / from Corporate Center and other business divisions | 2,180 | 1,137 | 1,074 | 478 | 2,711 | (8,046) | (48) | 514 | 0 |
| *of which: services from CC – Services* | *2,122* | *1,121* | *1,196* | *495* | *2,658* | *(8,084)* | *88* | *404* | *0* |
| Depreciation and impairment of property, equipment and software | 4 | 0 | 17 | 2 | 32 | 762 | 0 | 0 | 817 |
| Amortization and impairment of intangible assets[3] | 5 | 48 | 0 | 9 | 15 | 6 | 0 | 0 | 83 |
| Total operating expenses[4] | 5,574 | 6,099 | 2,235 | 1,435 | 8,392 | 679 | 0 | 1,144 | 25,557 |
| **Operating profit / (loss) before tax** | **2,326** | **900** | **1,506** | **467** | **(84)** | **(643)** | **2** | **(2,005)** | **2,469** |
| Tax expense / (benefit) | | | | | | | | | (1,180) |
| **Net profit / (loss)** | | | | | | | | | **3,649** |
| **Additional Information** | | | | | | | | | |
| Total assets | 127,588 | 56,026 | 143,711 | 15,207 | 292,347 | 19,720 | 237,901 | 169,826 | 1,062,327 |
| Additions to non-current assets | 7 | 6 | 9 | 2 | 7 | 1,677 | 0 | 0 | 1,708 |

1 Figures in this table may differ from those originally published in quarterly and annual reports due to adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period. Refer to Note 1b for more information. 2 Impairments of financial assets available for sale for the year ended 31 December 2014 totaled CHF 76 million, of which CHF 49 million was recorded in the Investment Bank and CHF 23 million in Corporate Center – Non-core and Legacy Portfolio. 3 Refer to Note 15 for more information. 4 Refer to Note 30 for information on restructuring expenses.

## Note 2b Segment reporting by geographic location

The operating regions shown in the table below correspond to the regional management structure of UBS AG. The allocation of operating income to these regions reflects, and is consistent with, the basis on which the business is managed and its performance is evaluated. These allocations involve assumptions and judgments that management considers to be reasonable, and may be refined to reflect changes in estimates or management structure. The main principles of the allocation methodology are that client revenues are attributed to the domicile of the client and trading and portfolio management revenues are attributed to the country where the risk is managed. This revenue attribution is consistent with the mandate of the regional Presidents. Certain revenues, such as those related to Corporate Center – Non-core and Legacy Portfolio, are managed at a global level. These revenues are included in the *Global* line.

The geographic analysis of non-current assets is based on the location of the entity in which the assets are recorded.

**For the year ended 31 December 2016**

| | Total operating income | | Total non-current assets | |
|---|---|---|---|---|
| | CHF billion | Share % | CHF billion | Share % |
| Americas | 11.7 | 41 | 7.4 | 47 |
| *of which: US* | *11.1* | *39* | *7.0* | *44* |
| Asia Pacific | 4.1 | 14 | 0.6 | 4 |
| Europe, Middle East and Africa | 6.1 | 21 | 1.8 | 11 |
| Switzerland | 6.8 | 24 | 6.0 | 38 |
| Global | (0.3) | (1) | 0.0 | 0 |
| **Total** | 28.4 | 100 | 15.8 | 100 |

**For the year ended 31 December 2015**

| | Total operating income | | Total non-current assets | |
|---|---|---|---|---|
| | CHF billion | Share % | CHF billion | Share % |
| Americas | 11.3 | 37 | 7.1 | 47 |
| *of which: US* | *10.7* | *35* | *6.7* | *44* |
| Asia Pacific | 5.0 | 16 | 0.5 | 3 |
| Europe, Middle East and Africa | 6.8 | 22 | 1.7 | 11 |
| Switzerland | 7.1 | 23 | 5.9 | 39 |
| Global | 0.5 | 2 | 0.0 | 0 |
| **Total** | **30.6** | **100** | **15.2** | **100** |

**For the year ended 31 December 2014**

| | Total operating income | | Total non-current assets | |
|---|---|---|---|---|
| | CHF billion | Share % | CHF billion | Share % |
| Americas | 10.7 | 38 | 7.0 | 48 |
| *of which: US* | *10.1* | *36* | *6.6* | *45* |
| Asia Pacific | 4.6 | 16 | 0.4 | 3 |
| Europe, Middle East and Africa | 6.8 | 24 | 1.5 | 10 |
| Switzerland | 6.8 | 24 | 5.6 | 38 |
| Global | (0.9) | (3) | 0.0 | 0 |
| **Total** | **28.0** | **100** | **14.6** | **100** |

# Income statement notes

## Note 3 Net interest and trading income

| | For the year ended | | | % change from |
|---|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 | 31.12.15 |
| **Net interest and trading income** | | | | |
| Net interest income | 6,383 | 6,729 | 6,555 | (5) |
| Net trading income | 4,943 | 5,696 | 3,841 | (13) |
| **Total net interest and trading income** | 11,326 | 12,425 | 10,396 | (9) |
| Wealth Management | 2,998 | 3,034 | 2,845 | (1) |
| Wealth Management Americas | 1,839 | 1,537 | 1,352 | 20 |
| Personal & Corporate Banking | 2,532 | 2,613 | 2,536 | (3) |
| Asset Management | (29) | (5) | 0 | 480 |
| Investment Bank | 4,275 | 5,186 | 4,517 | (18) |
| *of which: Corporate Client Solutions* | *822* | *1,001* | *1,030* | *(18)* |
| *of which: Investor Client Services* | *3,453* | *4,185* | *3,487* | *(17)* |
| Corporate Center | (289) | 61 | (855) | |
| *of which: Services* | *(92)* | *(1)* | *33* | |
| *of which: Group ALM* | *(134)* | *375* | *16* | |
| *of which: own credit on financial liabilities designated at fair value[1]* | | *553* | *292* | *(100)* |
| *of which: Non-core and Legacy Portfolio* | *(62)* | *(313)* | *(904)* | *(80)* |
| **Total net interest and trading income** | 11,326 | 12,425 | 10,396 | (9) |
| **Net interest income** | | | | |
| **Interest income** | | | | |
| Interest income from loans and deposits[2, 3] | 9,566 | 8,626 | 8,722 | 11 |
| Interest income from securities financing transactions[4] | 1,136 | 896 | 752 | 27 |
| Interest income from trading portfolio[5] | 2,465 | 3,071 | 3,196 | (20) |
| Interest income from financial assets and liabilities designated at fair value | 361 | 194 | 208 | 86 |
| Interest income from financial assets available for sale and held to maturity[5] | 253 | 391 | 315 | (35) |
| **Total** | 13,782 | 13,178 | 13,194 | 5 |
| **Interest expense** | | | | |
| Interest expense on loans and deposits[6] | 1,664 | 774 | 708 | 115 |
| Interest expense on securities financing transactions[7] | 1,233 | 976 | 827 | 26 |
| Interest expense on trading portfolio[8] | 1,614 | 1,670 | 1,804 | (3) |
| Interest expense on financial assets and liabilities designated at fair value | 841 | 730 | 919 | 15 |
| Interest expense on debt issued | 2,046 | 2,299 | 2,382 | (11) |
| **Total** | 7,399 | 6,449 | 6,639 | 15 |
| **Net interest income** | 6,383 | 6,729 | 6,555 | (5) |
| **Net trading income** | | | | |
| Investment Bank Corporate Client Solutions | 188 | 321 | 276 | (41) |
| Investment Bank Investor Client Services | 3,330 | 3,494 | 2,760 | (5) |
| Other business divisions and Corporate Center | 1,425 | 1,882 | 806 | (24) |
| **Net trading income** | 4,943 | 5,696 | 3,841 | (13) |
| *of which: net gains / (losses) from financial assets designated at fair value* | *(186)* | *(119)* | *(81)* | *56* |
| *of which: net gains / (losses) from financial liabilities designated at fair value[9]* | *(1,362)* | *3,701* | *(2,380)* | |

1 Refer to Note 1b for more information. 2 Includes interest income on impaired loans and advances of CHF 21 million for 2016, CHF 16 million for 2015 and CHF 15 million for 2014. 3 Consists of interest income from balances with central banks, amounts due from banks and loans, and negative interest on amounts due to banks and customers. 4 Includes interest income on securities borrowed and reverse repurchase agreements and negative interest, including fees, on securities lent and repurchase agreements. 5 Includes dividend income. 6 Consists of interest expense on amounts due to banks and customers, and negative interest on balances with central banks, amounts due from banks and loans. 7 Includes interest expense on securities lent and repurchase agreements and negative interest, including fees, on securities borrowed and reverse repurchase agreements. 8 Includes expense related to dividend payment obligations on trading liabilities. 9 Excludes fair value changes of hedges related to financial liabilities designated at fair value and foreign currency translation effects arising from translating foreign currency transactions into the respective functional currency, both of which are reported within net trading income.

## Note 4 Net fee and commission income

| | For the year ended | | | % change from |
|---|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 | 31.12.15 |
| Underwriting fees | 994 | 1,290 | 1,470 | (23) |
| *of which: equity underwriting fees* | *516* | *836* | *947* | *(38)* |
| *of which: debt underwriting fees* | *478* | *455* | *522* | *5* |
| M&A and corporate finance fees | 733 | 737 | 731 | (1) |
| Brokerage fees | 3,544 | 3,930 | 3,918 | (10) |
| Investment fund fees | 3,155 | 3,567 | 3,717 | (12) |
| Portfolio management and advisory fees | 8,035 | 7,858 | 7,343 | 2 |
| Other | 1,747 | 1,678 | 1,760 | 4 |
| **Total fee and commission income** | 18,207 | 19,060 | 18,940 | (4) |
| Brokerage fees paid | 757 | 869 | 818 | (13) |
| Other | 1,003 | 1,007 | 1,045 | 0 |
| **Total fee and commission expense** | 1,760 | 1,876 | 1,863 | (6) |
| **Net fee and commission income** | 16,447 | 17,184 | 17,076 | (4) |
| *of which: net brokerage fees* | *2,786* | *3,060* | *3,100* | *(9)* |

## Note 5 Other income

| | For the year ended | | | % change from |
|---|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 | 31.12.15 |
| **Associates and subsidiaries** | | | | |
| Net gains / (losses) from disposals of subsidiaries[1] | (150)[2] | 264[2] | 56 | |
| Net gains / (losses) from disposals of investments in associates | 0 | 0 | 69 | |
| Share of net profits of associates | 106 | 169 | 94 | (37) |
| **Total** | (44) | 433 | 219 | |
| **Financial assets available for sale** | | | | |
| Net gains / (losses) from disposals | 346 | 252 | 219 | 37 |
| Impairment charges | (5) | (1) | (76) | 400 |
| **Total** | 342 | 251 | 143 | 36 |
| Net income from properties (excluding net gains / (losses) from disposals)[3] | 25 | 28 | 30 | (11) |
| Net gains / (losses) from disposals of properties held for sale | 125 | 378 | 44 | (67) |
| Net gains / (losses) from disposals of loans and receivables | (3) | 26 | 39 | |
| Other | 240 | (5)[4] | 157 | |
| **Total other income** | 685 | 1,112 | 632 | (38) |

1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to disposed foreign subsidiaries and branches. 2 2016 includes a loss on sale of a subsidiary of CHF 23 million in Wealth Management. 2015 includes a net gain on sale of subsidiaries of CHF 113 million in Wealth Management and a net gain on sale of subsidiaries of CHF 56 million in Asset Management. Refer to Note 30 for more information. 3 Includes net rent received from third parties and net operating expenses. 4 Includes a net gain on sale of businesses of CHF 56 million in Wealth Management. Refer to Note 30 for more information.

## Note 6 Personnel expenses

| | For the year ended | | | % change from |
|---|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 | 31.12.15 |
| Salaries[1] | 6,136 | 6,260 | 6,269 | (2) |
| Variable compensation – performance awards[2] | 2,963 | 3,209 | 2,820 | (8) |
| *of which: guarantees for new hires* | *30* | *38* | *48* | *(21)* |
| Variable compensation – other[2] | 418 | 346 | 466 | 21 |
| *of which: replacement payments[3]* | *86* | *76* | *81* | *13* |
| *of which: forfeiture credits* | *(73)* | *(86)* | *(70)* | *(15)* |
| *of which: severance payments[4]* | *217* | *157* | *162* | *38* |
| *of which: retention plan and other payments* | *188* | *198* | *292* | *(5)* |
| Wealth Management Americas: Financial advisor compensation[2, 5] | 3,697 | 3,552 | 3,385 | 4 |
| Contractors | 420 | 365 | 234 | 15 |
| Social security | 734 | 817 | 791 | (10) |
| Pension and other post-employment benefit plans[6] | 669 | 807 | 711 | (17) |
| Other personnel expenses | 554 | 597 | 605 | (7) |
| **Total personnel expenses[7]** | 15,591 | 15,954 | 15,280 | (2) |

1 Includes role-based allowances. 2 Refer to Note 27 for more information. 3 Replacement payments are payments made to compensate employees for deferred awards forfeited as a result of joining UBS AG. 4 Includes legally obligated and standard severance payments. 5 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated based on financial advisor productivity, firm tenure, assets and other variables. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. 6 Refer to Note 26 for more information. 7 Includes net restructuring expenses of CHF 731 million, CHF 458 million and CHF 327 million for the years ended 31 December 2016, 31 December 2015 and 31 December 2014, respectively. Refer to Note 30 for more information.

## Note 7 General and administrative expenses

| | For the year ended | | | % change from |
|---|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 | 31.12.15 |
| Occupancy | 921 | 928 | 1,005 | (1) |
| Rent and maintenance of IT and other equipment | 511 | 510 | 479 | 0 |
| Communication and market data services | 624 | 610 | 608 | 2 |
| Administration | 1,069 | 855 | 608 | 25 |
| Marketing and public relations | 465 | 484 | 468 | (4) |
| Travel and entertainment | 411 | 456 | 458 | (10) |
| Professional fees | 1,225 | 1,351 | 1,306 | (9) |
| Outsourcing of IT and other services | 1,592 | 1,742 | 1,603 | (9) |
| Provisions for litigation, regulatory and similar matters[1] | 795 | 1,087 | 2,594 | (27) |
| Other | 78 | 195 | 248 | (60) |
| **Total general and administrative expenses[2]** | 7,690 | 8,219 | 9,377 | (6) |

1 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. Refer to Note 20 for more information. Also includes recoveries from third parties of CHF 13 million, CHF 10 million and CHF 10 million for the years ended 31 December 2016, 31 December 2015 and 31 December 2014, respectively. 2 Includes net restructuring expenses of CHF 700 million, CHF 760 million and CHF 319 million for the years ended 31 December 2016, 31 December 2015 and 31 December 2014, respectively. Refer to Note 30 for more information.

## Note 8 Income taxes

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| **Tax expense / (benefit)** | | | |
| Swiss | | | |
| Current | 429 | 230 | 46 |
| Deferred | 635 | 329 | 1,348 |
| Non-Swiss | | | |
| Current | 350 | 476 | 409 |
| Deferred | (633) | (1,943) | (2,983) |
| **Total income tax expense / (benefit) recognized in the income statement** | 781 | **(908)** | **(1,180)** |

### Income tax recognized in the income statement

The Swiss current tax expense of CHF 429 million related to taxable profits, mainly earned by Swiss subsidiaries, against which no losses were available to offset. The Swiss deferred tax expense of CHF 635 million reflected a decrease of deferred tax assets previously recognized in relation to tax losses carried forward and temporary differences.

The non-Swiss current tax expense of CHF 350 million related to taxable profits earned by non-Swiss subsidiaries and branches, against which no losses were available to offset. The non-Swiss net deferred tax benefit of CHF 633 million was primarily due to an increase in US deferred tax assets, reflecting updated profit forecasts.

UBS AG considers the performance of its businesses and the accuracy of historical forecasts and other factors in evaluating the recoverability of its deferred tax assets, including the remaining tax loss carry-forward period, and its assessment of expected future taxable profits in the forecast period used for recognizing deferred tax assets. Estimating future profitability is inherently subjective and is particularly sensitive to future economic, market and other conditions, which are difficult to predict.

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| Operating profit / (loss) before tax | 4,069 | 5,407 | 2,469 |
| *of which: Swiss* | *2,607* | *3,665* | *1,181* |
| *of which: Non-Swiss* | *1,462* | *1,742* | *1,288* |
| Income taxes at Swiss tax rate of 21% | 854 | 1,135 | 519 |
| Increase / (decrease) resulting from: | | | |
| Non-Swiss tax rates differing from Swiss tax rate | 71 | (69) | 68 |
| Tax effects of losses not recognized | 185 | 107 | 325 |
| Previously unrecognized tax losses now utilized | (39) | (107) | (285) |
| Non-taxable and lower taxed income | (343) | (273) | (384) |
| Non-deductible expenses and additional taxable income | 914 | 519 | 1,069 |
| Adjustments related to prior years - current tax | 22 | 29 | 5 |
| Adjustments related to prior years - deferred tax | 2 | (48) | (9) |
| Change in deferred tax valuation allowances | (978) | (2,419) | (2,373) |
| Adjustments to deferred tax balances arising from changes in tax rates | 19 | 191 | (183) |
| Other items | 72 | 26 | 69 |
| **Income tax expense / (benefit)** | 781 | **(908)** | **(1,180)** |

## Note 8 Income taxes (continued)

The components of operating profit before tax, and the differences between income tax expense reflected in the financial statements and the amounts calculated at the Swiss tax rate, are provided in the table on the previous page and explained below.

### Non-Swiss tax rates differing from Swiss tax rate

To the extent that UBS AG profits or losses arise outside Switzerland, the applicable local tax rate may differ from the Swiss tax rate. This item reflects, for such profits or losses, an adjustment from the tax expense / benefit that would arise at the Swiss tax rate and the tax expense / benefit that would arise at the applicable local tax rate. If an entity generates a profit, a tax expense arises where the local tax rate is in excess of the Swiss tax rate and a tax benefit arises where the local tax rate is below the Swiss tax rate. Conversely, if an entity incurs a loss, a tax benefit arises where the local tax rate is in excess of the Swiss tax rate and a tax expense arises where the local tax rate is less than the Swiss tax rate.

### Tax effects of losses not recognized

This item relates to tax losses of entities arising in the year, which are not recognized as deferred tax assets. Consequently, no tax benefit arises in relation to those losses. Therefore, the tax benefit calculated by applying the local tax rate to those losses as described above is reversed.

### Previously unrecognized tax losses now utilized

This item relates to taxable profits of the year, which are offset by tax losses of previous years, for which no deferred tax assets were previously recorded. Consequently, no current tax or deferred tax expense arises in relation to those taxable profits. Therefore, the tax expense calculated by applying the local rate on those profits is reversed.

### Non-taxable and lower taxed income

This item relates to profits for the year, which are either permanently not taxable or are taxable, but at a lower rate of tax than the local tax rate. It also includes any permanent deductions made for tax purposes, which are not reflected in the accounts, thereby effectively ensuring that profits covered by the deduction are not taxable.

### Non-deductible expenses and additional taxable income

This item mainly relates to income for the year, which is imputed for tax purposes for an entity, but is not included in its operating profit. In addition, it includes expenses for the year that are permanently non-deductible.

### Adjustments related to prior years – current tax

This item relates to adjustments to current tax expense for prior years, for example, if the tax payable for a year agreed with the tax authorities is expected to differ from the amount previously reflected in the financial statements.

### Adjustments related to prior years – deferred tax

This item relates to adjustments to deferred tax positions recognized in prior years, for example, if a tax loss for a year is fully recognized and the amount of the tax loss agreed with the tax authorities is expected to differ from the amount previously recognized as deferred tax assets in the accounts.

## Note 8 Income taxes (continued)

Change in deferred tax valuation allowances
This item includes revaluations of deferred tax assets previously recognized resulting from reassessments of expected future taxable profits. It also includes changes in temporary differences in the year, for which deferred tax is not recognized. The amount in the year mainly relates to the upward revaluation of deferred tax assets.

Adjustments to deferred tax balances arising from changes in tax rates
This item relates to remeasurements of deferred tax assets and liabilities recognized due to changes in tax rates. These have the effect of changing the future tax saving that is expected from tax losses or deductible tax differences and therefore the amount of deferred tax assets recognized or, alternatively, changing the tax cost of additional taxable income from taxable temporary differences and therefore the deferred tax liability.

Other items
Other items include other differences between profits or losses at the local tax rate and the actual local tax expense or benefit, including increases in provisions for uncertain positions in relation to the current year, interest accruals for such provisions in relation to prior years and other items.

### Income tax recognized directly in equity

Certain tax expenses and benefits were recognized directly in equity. These included a tax benefit of CHF 170 million related to cash flow hedges (2015: benefit of CHF 131 million), a tax benefit of CHF 28 million related to financial assets classified as available for sale (2015: benefit of CHF 8 million), a tax expense of CHF 84 million related to foreign currency translation gains and losses (2015: expense of CHF 1 million), a tax benefit of CHF 52 million related to defined benefit plans (2015: expense of CHF 19 million) and a tax benefit of CHF 5 million (2015: CHF 0 million) related to own credit. In addition, they included a tax benefit of CHF 25 million recognized in share premium (2015: benefit of CHF 9 million). Furthermore, there were net foreign currency translation movements related to the effects of exchange rate changes on tax assets and liabilities denominated in currencies other than Swiss francs.

### Deferred tax assets and liabilities

UBS AG has deferred tax assets related to tax loss carry-forwards and other items as shown in the table below. As of 31 December 2016, deferred tax assets of CHF 1,689 million (31 December 2015: CHF 2,094 million) were recognized by entities that incurred losses in either the current or preceding year based on projections of future taxable profits. The valuation allowance reflects deferred tax assets that were not recognized because it was not considered probable that future taxable profits will be available to utilize the related tax loss carry-forwards and deductible temporary differences.

| *CHF million* | 31.12.16 | | | 31.12.15 | | |
|---|---|---|---|---|---|---|
| **Deferred tax assets**[1] | Gross | Valuation allowance | Recognized | Gross | Valuation allowance | Recognized |
| Tax loss carry-forwards | 24,627 | (16,430) | 8,197 | 25,471 | (18,378) | 7,093 |
| Temporary differences | 6,335 | (1,388) | 4,947 | 7,023 | (1,284) | 5,739 |
| *of which: related to compensation and benefits* | *1,419* | *(208)* | *1,211* | *1,576* | *(267)* | *1,310* |
| *of which: related to trading assets* | *935* | *(118)* | *817* | *1,116* | *(77)* | *1,038* |
| *of which: related to investments in subsidiaries and goodwill* | *2,059* | *0* | *2,059* | *2,310* | *0* | *2,310* |
| *of which: other* | *1,922* | *(1,062)* | *859* | *2,021* | *(940)* | *1,081* |
| **Total deferred tax assets** | 30,962 | (17,818) | 13,144 | 32,494 | (19,661) | 12,833 |
| | | | | | | |
| **Deferred tax liabilities** | | | | | | |
| Goodwill and intangible assets | | | 24 | | | 28 |
| Financial assets | | | 2 | | | 1 |
| Investments in associates and other | | | 18 | | | 27 |
| **Total deferred tax liabilities** | | | 44 | | | 56 |

1 Less deferred tax liabilities as applicable.

## Note 8 Income taxes (continued)

As of 31 December 2016, tax loss carry-forwards totaling CHF 49,477 million (31 December 2015: CHF 56,973 million), which are not recognized as deferred tax assets, were available to be offset against future taxable profits. These tax losses expire as outlined in the table below.

**Unrecognized tax loss carry-forwards**

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Within 1 year | 0 | 3,727 |
| From 2 to 5 years | 66 | 33 |
| From 6 to 10 years | 909 | 753 |
| From 11 to 20 years | 32,603 | 34,833 |
| No expiry | 15,899 | 17,627 |
| **Total** | 49,477 | 56,973 |

In general, Swiss tax losses can be carried forward for seven years, US federal tax losses for 20 years and UK and Jersey tax losses for an unlimited period.

UBS AG recognizes deferred tax liabilities on undistributed earnings of subsidiaries, except to the extent that those earnings are indefinitely invested. As of 31 December 2016, no such earnings were considered indefinitely invested.

The financial statements have been prepared on the basis that UBS Limited is able to offset part of its taxable profits against losses transferred from UBS AG. During 2016, the UK tax authorities indicated that they do not agree with this tax return filing position. If the authorities ultimately prevail on this point, UBS Limited would incur a further reduction in recognized deferred tax assets of approximately CHF 60 million, as well as additional current tax expenses for periods from 2014 onward of approximately CHF 70 million.

## Note 9 Earnings per share (EPS) and shares outstanding

During 2015, UBS AG shares were delisted from the SIX and the NYSE. As of 31 December 2016, 100% of UBS AG's issued shares were held by UBS Group AG and therefore were not publicly traded. Accordingly, earnings per share information is not provided for UBS AG.

# Balance sheet notes: assets

## Note 10 Due from banks and loans (held at amortized cost)

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| **By type of exposure** | | |
| Due from banks, gross | 13,128 | 11,869 |
| Allowance for credit losses | (3) | (3) |
| Due from banks, net | 13,125 | 11,866 |
| Loans, gross | | |
| Residential mortgages | 142,197 | 141,608 |
| Commercial mortgages | 19,765 | 21,509 |
| Lombard loans | 104,999 | 107,084 |
| Other loans[1] | 37,160 | 39,321 |
| Finance lease receivables[2] | 986 | 1,083 |
| Securities | 2,494 | 2,807 |
| Subtotal | 307,601 | 313,413 |
| Allowance for credit losses | (596) | (689) |
| Loans, net | 307,004 | 312,723 |
| Total due from banks and loans, net[3] | 320,129 | 324,590 |

1 Includes corporate loans. 2 Refer to Note 31 for more information. 3 Refer to Note 25b for more information on collateral and credit enhancements.

## Note 11 Allowances and provisions for credit losses

*CHF million*

| By movement | Specific allowances | Collective allowances | Total allowances | Provisions[1] | Total 31.12.16 | Total 31.12.15 |
|---|---|---|---|---|---|---|
| Balance at the beginning of the year | 686 | 6 | 692 | 35 | 727 | 735 |
| Write-offs / usage of provisions | (143) | (2) | (145) | 0 | (145) | (164) |
| Recoveries | 21 | 0 | 22 | 0 | 22 | 48 |
| Increase / (decrease) recognized in the income statement | 21 | 6 | 28 | 9 | 37 | 117 |
| Reclassifications | (10) | 0 | (10) | 10 | 0 | 0 |
| Foreign currency translation | (1) | 0 | 0 | 0 | 0 | (11) |
| Other | 12 | 0 | 12 | 0 | 12 | 2 |
| **Balance at the end of the year** | 587 | 12 | 599 | 54 | 653 | 727 |

1 Represents provisions for loan commitments and guarantees. Refer to Note 20 for more information. Refer to the "Treasury management" section of this report for the maximum irrevocable amount of loan commitments and guarantees.

| By balance sheet line | Specific allowances | Collective allowances | Total allowances | Provisions | Total 31.12.16 | Total 31.12.15 |
|---|---|---|---|---|---|---|
| Due from banks | 3 | 0 | 3 | | 3 | 3 |
| Loans | 585 | 12 | 596 | | 596 | 689 |
| Provisions[1] | | | | 54 | 54 | 35 |
| **Balance at the end of the year** | 587 | 12 | 599 | 54 | 653 | 727 |

1 Represents provisions for loan commitments and guarantees.

## Note 12 Derivative instruments and hedge accounting

### Derivatives: overview

A derivative is a financial instrument of which the value is derived from one or more variables (underlyings). Underlyings may be indices, foreign currency exchange or interest rates, or the value of shares, commodities, bonds or other financial instruments. A derivative commonly requires little or no initial net investment by either counterparty to the trade.

The majority of derivative contracts are negotiated with respect to notional amounts, tenor, price and settlement mechanisms, as is customary with other financial instruments.

Over-the-counter (OTC) derivative contracts are usually traded under a standardized International Swaps and Derivatives Association (ISDA) master agreement between UBS and its counterparties. Terms are negotiated directly with counterparties and the contracts will have industry-standard settlement mechanisms prescribed by ISDA. Recent rules, introduced by regulators in various jurisdictions, require or will soon require the payment and collection of initial and variation margin on certain OTC derivative contracts which may have a bearing on their price and other relevant terms.

The industry continues to promote the use of central counterparties (CCPs) to clear OTC trades. The trend toward CCP clearing and settlement will generally facilitate the reduction of systemic credit exposures.

Other derivative contracts are standardized in terms of their amounts and settlement dates, and are bought and sold on regulated exchanges. These are commonly referred to as exchange-traded derivatives (ETD) contracts. Exchanges offer the benefits of pricing transparency, standardized daily settlement of changes in value and consequently reduced credit risk.

For presentation purposes, UBS AG's derivative contracts are subject to IFRS netting provisions. Derivative instruments are measured at fair value and generally classified as *Positive replacement values* and *Negative replacement values* on the balance sheet. However, ETD that are economically settled on a daily basis and OTC derivatives that are either legally settled or in substance net settled on a daily basis are classified as *Cash collateral receivables on derivative instruments* or *Cash collateral payables on derivative instruments*. Changes in the replacement values of derivatives are recorded in *Net trading income* unless the derivatives are designated and effective as hedging instruments in certain types of hedge accounting relationships.

→ **Refer to Note 1a item 3j for more information**

→ **Refer to Note 24 for more information on the values of positive and negative replacement values after consideration of netting potential allowed under enforceable netting arrangements**

UBS AG uses various derivative instruments for both trading and hedging purposes. Derivative product types as well as valuation principles and techniques applied by UBS AG are described in Note 22. *Positive replacement values* represent the estimated amount UBS AG would receive if the derivative contract were sold on the balance sheet date. *Negative replacement values* indicate the estimated amount UBS AG would pay to transfer its obligations in respect of the underlying contract were it required or entitled to do so on the balance sheet date.

Derivatives embedded in other financial instruments are not included in the "Derivative instruments" table within this Note. Bifurcated embedded derivatives are presented on the same balance sheet line as the host contract. In cases where UBS applies the fair value option to hybrid instruments, bifurcation of an embedded derivative component is not required and as such this component is also not included in the "Derivative instruments" table.

→ **Refer to Notes 18 and 22 for more information**

### Risks of derivative instruments

Derivative instruments are transacted in many trading portfolios, which generally include several types of instruments, not just derivatives. The market risk of derivatives is predominantly managed and controlled as an integral part of the market risk of these portfolios. UBS AG's approach to market risk is described in the audited sections of the "Risk management and control" section of this report.

Derivative instruments are also transacted with many different counterparties, most of whom are also counterparties for other types of business. The credit risk of derivatives is managed and controlled in the context of UBS AG's overall credit exposure to its counterparties. UBS AG's approach to credit risk is described in the audited portions of "Credit risk" in the "Risk management and control" section of this report. It should be noted that, although the positive replacement values shown on the balance sheet can be an important component of UBS AG's credit exposure, the positive replacement values related to a respective counterparty are rarely an adequate reflection of UBS AG's credit exposure in its derivatives business with that counterparty. This is generally the case because, on the one hand, replacement values can increase over time (potential future exposure), while on the other hand, exposure may be mitigated by entering into master netting agreements and bilateral collateral arrangements. Both the exposure measures used internally by UBS AG to control credit risk and the capital requirements imposed by regulators reflect these additional factors.

## Note 12 Derivative instruments and hedge accounting (continued)

### Derivative instruments[1]

| | 31.12.16 | | | | | 31.12.15 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *CHF billion* | PRV[2] | Notional values related to PRV[3] | NRV[4] | Notional values related to NRV[3] | Other notional values[3] | PRV[2] | Notional values related to PRV[3] | NRV[4] | Notional values related to NRV[3] | Other notional values[3] |
| **Interest rate contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Forward contracts[6] | 0.1 | 29.6 | 0.1 | 21.9 | 2,242.8 | 0.1 | 48.6 | 0.2 | 51.9 | 2,351.4 |
| Swaps | 45.2 | 599.3 | 38.3 | 552.6 | 7,064.2 | 57.0 | 840.1 | 48.2 | 782.0 | 5,904.7 |
| Options | 12.6 | 478.1 | 13.9 | 480.6 | | 17.3 | 581.7 | 19.1 | 549.8 | |
| Exchange-traded contracts | | | | | | | | | | |
| Futures | | | | | 326.4 | | | | | 346.0 |
| Options | 0.0 | 45.4 | 0.0 | 4.5 | 96.2 | 0.0 | 22.7 | 0.0 | 15.5 | 169.4 |
| Agency transactions[7] | 0.2 | | 0.2 | | | 0.1 | | 0.1 | | |
| **Total** | 58.0 | 1,152.4 | 52.5 | 1,059.6 | 9,729.6 | 74.5 | 1,493.1 | 67.6 | 1,399.3 | 8,771.4 |
| **Credit derivative contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Credit default swaps | 3.7 | 116.9 | 3.9 | 135.2 | | 6.1 | 152.7 | 6.0 | 165.7 | |
| Total return swaps | 0.2 | 3.3 | 0.9 | 4.3 | | 0.6 | 5.0 | 0.6 | 4.1 | |
| Options and warrants | 0.0 | 2.9 | 0.0 | 0.1 | | 0.0 | 4.2 | 0.0 | 0.1 | |
| **Total** | 3.9 | 123.1 | 4.8 | 139.6 | | 6.7 | 161.9 | 6.7 | 169.8 | |
| **Foreign exchange contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Forward contracts | 21.8 | 715.6 | 19.0 | 650.9 | | 17.8 | 727.6 | 16.6 | 673.9 | |
| Interest and currency swaps | 43.2 | 1,220.8 | 42.0 | 1,115.0 | | 38.3 | 1,429.9 | 37.6 | 1,330.1 | |
| Options | 11.1 | 530.3 | 11.0 | 513.7 | | 9.5 | 496.8 | 9.3 | 478.0 | |
| Exchange-traded contracts | | | | | | | | | | |
| Futures | | | | | 6.1 | | | | | 8.1 |
| Options | 0.0 | 2.9 | 0.1 | 6.0 | | 0.0 | 3.4 | 0.0 | 4.6 | |
| Agency transactions[7] | 0.0 | | 0.0 | | | 0.0 | | 0.0 | | |
| **Total** | 76.1 | 2,469.6 | 72.1 | 2,285.6 | 6.1 | 65.7 | 2,657.7 | 63.5 | 2,486.6 | 8.1 |
| **Equity / index contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Forward contracts | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Swaps | 3.6 | 76.5 | 4.8 | 69.0 | | 2.9 | 64.1 | 4.3 | 87.0 | |
| Options | 3.7 | 49.6 | 5.8 | 92.8 | | 4.8 | 59.1 | 6.7 | 92.6 | |
| Exchange-traded contracts | | | | | | | | | | |
| Futures | | | | | 33.0 | | | | | 30.0 |
| Options | 3.8 | 142.5 | 4.6 | 155.8 | 21.6 | 4.3 | 107.2 | 5.2 | 126.0 | 13.4 |
| Agency transactions[7] | 6.9 | | 6.9 | | | 5.0 | | 4.9 | | |
| **Total** | 18.0 | 268.6 | 22.1 | 317.6 | 54.5 | 16.9 | 230.3 | 21.2 | 305.6 | 43.3 |

Table continues on the next page.

## Note 12 Derivative instruments and hedge accounting (continued)

### Derivative instruments[1] (continued)

Table continued from the previous page.

| | 31.12.16 | | | | | 31.12.15 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *CHF billion* | PRV[2] | Notional values related to PRV[3] | NRV[4] | Notional values related to NRV[3] | Other notional values[3] | PRV[2] | Notional values related to PRV[3] | NRV[4] | Notional values related to NRV[3] | Other notional values[3] |
| **Commodity contracts** | | | | | | | | | | |
| Over-the-counter (OTC) contracts | | | | | | | | | | |
| Forward contracts | 0.3 | 4.8 | 0.1 | 2.7 | | 0.3 | 2.8 | 0.3 | 2.3 | |
| Swaps | 0.4 | 10.9 | 0.5 | 13.4 | | 0.7 | 9.9 | 0.5 | 9.4 | |
| Options | 0.5 | 14.1 | 0.2 | 9.9 | | 0.9 | 11.8 | 0.6 | 7.5 | |
| Exchange-traded contracts | | | | | | | | | | |
| Futures | | | | | 9.1 | | | | | 8.2 |
| Forward contracts | 0.1 | 5.9 | 0.0 | 4.6 | | 0.0 | 4.4 | 0.2 | 3.7 | |
| Options | 0.0 | 3.2 | 0.1 | 5.3 | 0.0 | 0.0 | 1.0 | 0.1 | 1.9 | 0.1 |
| Agency transactions[7] | 0.9 | | 0.9 | | | 1.5 | | 1.5 | | |
| **Total** | 2.3 | 39.0 | 2.0 | 35.9 | 9.1 | 3.4 | 30.0 | 3.2 | 24.6 | 8.3 |
| **Unsettled purchases of non-derivative financial instruments[8]** | 0.1 | 18.4 | 0.1 | 9.7 | | 0.1 | 9.6 | 0.2 | 16.7 | |
| **Unsettled sales of non-derivative financial instruments[8]** | 0.1 | 13.0 | 0.2 | 11.5 | | 0.2 | 20.1 | 0.1 | 6.4 | |
| **Total derivative instruments, based on IFRS netting[9]** | 158.4 | 4,084.0 | 153.8 | 3,859.6 | 9,799.3 | 167.4 | 4,602.7 | 162.4 | 4,409.0 | 8,831.1 |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 31 December 2016, these derivatives amounted to a PRV of CHF 0.1 billion (related notional values of CHF 1.9 billion) and an NRV of CHF 0.0 billion (related notional values of CHF 3.1 billion). As of 31 December 2015, these derivatives amounted to a PRV of CHF 0.1 billion (related notional values of CHF 0.6 billion) and an NRV of CHF 0.2 billion (related notional values of CHF 3.4 billion). 2 PRV: Positive replacement value. 3 In cases where replacement values are presented on a net basis on the balance sheet, the respective notional values of the netted replacement values are still presented on a gross basis. 4 NRV: Negative replacement value. 5 Other notional values relate to derivatives that are cleared through either a central clearing counterparty or an exchange. The fair value of these derivatives is presented on the balance sheet net of the corresponding cash margin under Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments and was not material for the periods presented. 6 Negative replacement values as of 31 December 2016 include CHF 0.1 billion related to derivative loan commitments (31 December 2015: CHF 0.1 billion). No notional amounts related to these replacement values are included the table. The maximum irrevocable amount related to these commitments was CHF 14.3 billion as of 31 December 2016 (31 December 2015: CHF 15.8 billion). 7 Notional values of exchange-traded agency transactions and OTC cleared transactions entered into on behalf of clients are not disclosed due to their significantly different risk profile. 8 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as replacement values. 9 Refer to Note 24 for more information on netting arrangements.

The notional amount of a derivative is generally the quantity of the underlying instrument on which the derivative contract is based and is the reference against which changes in the value of the derivative are measured. Notional values in themselves are generally not a direct indication of the values that are exchanged between parties, and are therefore not a direct measure of risk or financial exposure but are viewed as an indication of the scale of the different types of derivatives entered into by UBS AG.

The maturity profile of OTC interest rate contracts held as of 31 December 2016, based on notional values, was: approximately 52% (31 December 2015: 53%) mature within one year, 29% (31 December 2015: 29%) within one to five years and 19% (31 December 2015: 18%) after five years. Notional values of interest rate contracts cleared with a clearing house that qualify for IFRS balance sheet netting or are legally settled on a daily basis are presented under *Other notional values* and are categorized into maturity buckets on the basis of contractual maturities of the cleared underlying derivative contracts.

### Derivatives transacted for trading purposes

Most of UBS AG's derivative transactions relate to sales and trading activities. Sales activities include the structuring and marketing of derivative products to customers to enable them to take, transfer, modify or reduce current or expected risks. Trading activities include market-making to directly support the facilitation and execution of client activity. Market-making involves quoting bid and offer prices to other market participants with the intention of generating revenues based on spread and volume.

#### Credit derivatives

UBS is an active dealer in the fixed income market, including credit default swaps (CDS) and related products, with respect to a large number of issuers' securities. The primary purposes of these activities are market-making, primarily on behalf of clients, and ongoing hedging of trading book exposures.

**Note 12 Derivative instruments and hedge accounting (continued)**

Market-making activity, which is undertaken within the Investment Bank, consists of buying and selling single-name CDS, index CDS, loan CDS and related referenced cash instruments to facilitate client trading activity. UBS also actively utilizes CDS to economically hedge specific counterparty credit risks in its accrual and traded loan portfolios (including off-balance sheet loan commitments) with the aim of reducing concentrations in individual names, sectors or specific portfolios.

In addition, UBS actively utilizes CDS to economically hedge specific counterparty credit risks in its OTC derivative portfolios, including financial instruments that are designated at fair value through profit or loss.

The tables below provide more information on credit protection bought and sold, including replacement and notional value information by instrument type and counterparty type. The value of protection bought and sold is not, in isolation, a measure of UBS's credit risk. Counterparty relationships are viewed in terms of the total outstanding credit risk, which relates to other instruments in addition to CDS, and in connection with collateral arrangements in place. On a notional value basis, approximately 29% of credit protection bought and sold as of 31 December 2016 matures within one year (31 December 2015: 22%), approximately 61% within one to five years (31 December 2015: 68%) and approximately 10% after five years (31 December 2015: 10%).

**Credit derivatives by type of instrument**

| | Protection bought | | | Protection sold | | |
|---|---|---|---|---|---|---|
| *CHF billion* | PRV | NRV | Notional values | PRV | NRV | Notional values |
| Single-name credit default swaps | 1.6 | 1.3 | 91.4 | 1.3 | 1.4 | 81.3 |
| Multi-name index-linked credit default swaps | 0.2 | 0.8 | 38.4 | 0.5 | 0.4 | 38.3 |
| Multi-name other credit default swaps | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 1.1 |
| Total rate of return swaps | 0.1 | 0.7 | 5.5 | 0.0 | 0.2 | 2.1 |
| Options and warrants | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 0.1 |
| **Total 31 December 2016** | 2.0 | 2.8 | 139.7 | 1.9 | 2.0 | 122.9 |
| *of which: credit derivatives related to economic hedges* | *1.4* | *2.4* | *111.7* | *1.5* | *1.5* | *96.2* |
| *of which: credit derivatives related to market-making* | *0.5* | *0.3* | *28.0* | *0.4* | *0.5* | *26.7* |

| | Protection bought | | | Protection sold | | |
|---|---|---|---|---|---|---|
| *CHF billion* | PRV | NRV | Notional values | PRV | NRV | Notional values |
| Single-name credit default swaps | 3.1 | 1.9 | 115.5 | 1.9 | 2.9 | 105.1 |
| Multi-name index-linked credit default swaps | 0.3 | 0.6 | 48.0 | 0.6 | 0.5 | 45.6 |
| Multi-name other credit default swaps | 0.1 | 0.1 | 2.4 | 0.0 | 0.1 | 1.8 |
| Total rate of return swaps | 0.5 | 0.2 | 6.3 | 0.1 | 0.4 | 2.8 |
| Options and warrants | 0.0 | 0.0 | 4.2 | 0.0 | 0.0 | 0.1 |
| **Total 31 December 2015** | 4.0 | 2.8 | 176.4 | 2.6 | 3.9 | 155.3 |
| *of which: credit derivatives related to economic hedges* | *2.7* | *2.4* | *152.8* | *2.2* | *2.5* | *132.8* |
| *of which: credit derivatives related to market-making* | *1.4* | *0.4* | *23.6* | *0.4* | *1.3* | *22.5* |

## Note 12 Derivative instruments and hedge accounting (continued)

### Credit derivatives by counterparty

| | Protection bought | | | Protection sold | | |
|---|---|---|---|---|---|---|
| *CHF billion* | PRV | NRV | Notional values | PRV | NRV | Notional values |
| Broker-dealers | 0.4 | 0.2 | 20.9 | 0.2 | 0.3 | 16.1 |
| Banks | 0.9 | 1.0 | 60.8 | 0.8 | 1.0 | 52.6 |
| Central clearing counterparties | 0.3 | 0.9 | 47.2 | 0.8 | 0.4 | 47.1 |
| Other | 0.4 | 0.8 | 10.9 | 0.2 | 0.3 | 7.1 |
| **Total 31 December 2016** | 2.0 | 2.8 | 139.7 | 1.9 | 2.0 | 122.9 |

| | Protection bought | | | Protection sold | | |
|---|---|---|---|---|---|---|
| *CHF billion* | PRV | NRV | Notional values | PRV | NRV | Notional values |
| Broker-dealers | 0.8 | 0.3 | 27.3 | 0.2 | 0.6 | 19.5 |
| Banks | 1.9 | 1.3 | 78.0 | 1.2 | 1.6 | 68.3 |
| Central clearing counterparties | 0.4 | 0.8 | 55.3 | 0.9 | 0.9 | 58.9 |
| Other | 0.8 | 0.4 | 15.8 | 0.3 | 0.8 | 8.7 |
| **Total 31 December 2015** | 4.0 | 2.8 | 176.4 | 2.6 | 3.9 | 155.3 |

UBS AG's CDS trades are documented using industry standard forms of documentation or equivalent terms documented in a bespoke agreement. The agreements that govern CDS generally do not contain recourse provisions that would enable UBS to recover from third parties any amounts paid out by UBS.

The types of credit events that would require UBS to perform under a CDS contract are subject to agreement between the parties at the time of the transaction. However, nearly all transactions are traded using credit events that are applicable under certain market conventions based on the type of reference entity to which the transaction relates. Applicable credit events by market conventions include bankruptcy, failure to pay, restructuring, obligation acceleration and repudiation / moratorium.

### Contingent collateral features of derivative liabilities

Certain derivative instruments contain contingent collateral or termination features triggered upon a downgrade of the published credit ratings of UBS AG in the normal course of business. Based on UBS AG's credit ratings as of 31 December 2016, CHF 0.1 billion, CHF 0.3 billion and CHF 1.1 billion would have been required for contractual obligations related to OTC derivatives in the event of a one-notch, two-notch and three-notch reduction in long-term credit ratings, respectively. In evaluating UBS AG's liquidity requirements, UBS AG considers additional collateral or termination payments that would be required in the event of a reduction in UBS AG's long-term credit ratings, and a corresponding reduction in UBS AG's short-term ratings.

### Derivatives transacted for hedging purposes

UBS AG enters into derivative transactions for the purposes of hedging risks inherent in assets, liabilities and forecasted transactions. The accounting treatment of hedge transactions varies according to the nature of the instrument hedged and whether the hedge qualifies as such for accounting purposes.

Derivative transactions that qualify and are designated as hedges for accounting purposes are described under the corresponding headings in this Note (fair value hedges, cash flow hedges and hedges of net investments in foreign operations). UBS AG's accounting policies for derivatives designated and accounted for as hedging instruments are described in Note 1a item 3k, where terms used in the following sections are explained.

UBS AG has also entered into various hedging strategies utilizing derivatives for which hedge accounting has not been applied. These include interest rate swaps and other interest rate derivatives (e.g., futures) for day-to-day economic interest rate risk management purposes. In addition, UBS AG has used equity futures, options and, to a lesser extent, swaps for economic hedging in a variety of equity trading strategies to offset underlying equity and equity volatility exposure. UBS AG has also entered into CDS that provide economic hedges for credit risk exposures (refer to "Credit derivatives" in this Note). Fair value changes of derivatives that are part of economic relationships, but do not qualify for hedge accounting treatment, are reported in *Net trading income*, except for the forward points on certain short duration foreign exchange contracts, which are reported in *Interest income*.

Effective 30 June 2016, UBS elected to convert its interest rate swaps transacted with the London Clearing House from the previous collateral model to a settlement model. As a result, the fair value of outstanding derivatives designated as hedging instruments decreased significantly compared with the prior-year comparatives.

**Note 12 Derivative instruments and hedge accounting (continued)**

### Fair value hedges: interest rate risk related to debt instruments

UBS AG's fair value hedges principally consist of interest rate swaps that are used to protect against changes in the fair value of fixed-rate debt instruments, such as non-structured fixed-rate bonds, covered bonds and subordinated debt, due to movements in market interest rates. The fair values of outstanding interest rate derivatives designated as fair value hedges were assets of CHF 152 million and liabilities of CHF 1 million as of 31 December 2016 and assets of CHF 1,656 million and liabilities of CHF 11 million as of 31 December 2015.

**Fair value hedges of interest rate risk**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| Gains / (losses) on hedging instruments | 140 | 554 | 1,113 |
| Gains / (losses) on hedged items attributable to the hedged risk | (144) | (552) | (1,111) |
| **Net gains / (losses) representing ineffective portions of fair value hedges** | (4) | 2 | 2 |

### Fair value hedges: portfolio interest rate risk related to loans

UBS AG also applies fair value hedge accounting to mortgage loan portfolio interest rate risk. The change in fair value of the hedged items is recorded separately from the hedged item and is included within *Other assets* on the balance sheet. The fair values of outstanding interest rate derivatives designated for these hedges as of 31 December 2016 were liabilities of CHF 44 million (31 December 2015: assets of CHF 7 million and liabilities of CHF 327 million).

**Fair value hedges of portfolio interest rate risk**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| Gains / (losses) on hedging instruments | (128) | (176) | (694) |
| Gains / (losses) on hedged items attributable to the hedged risk | 116 | 147 | 676 |
| **Net gains / (losses) representing ineffective portions of fair value hedges** | (12) | (29) | (18) |

### Cash flow hedges of forecasted transactions

UBS AG is exposed to variability in future interest cash flows on non-trading financial assets and liabilities that bear interest at variable rates or are expected to be refinanced or reinvested in the future. The amounts and timing of future cash flows, representing both principal and interest flows, are projected on the basis of contractual terms and other relevant factors, including estimates of prepayments and defaults. The aggregate principal balances and interest cash flows across all portfolios over time form the basis for identifying the non-trading interest rate risk of UBS AG, which is hedged with interest rate swaps, the maximum maturity of which is 12 years. The table on the following page shows forecasted principal balances on which expected interest cash flows arise as of 31 December 2016. Amounts shown represent, by time bucket, average assets and liabilities subject to forecasted cash flows designated as hedged items in cash flow hedge accounting relationships.

As of 31 December 2016, the fair values of outstanding derivatives designated as cash flow hedges of forecasted transactions were CHF 68 million assets and CHF 5 million liabilities (31 December 2015: CHF 2,176 million assets and CHF 195 million liabilities).

In 2016, a gain of CHF 11 million was recognized in *Net trading income* due to hedge ineffectiveness, compared with a gain of CHF 150 million in 2015 and a gain of CHF 87 million in 2014.

## Note 12 Derivative instruments and hedge accounting (continued)

**Principal balances subject to cash flow forecasts**

| *CHF billion* | Within 1 year | 1–3 years | 3–5 years | 5–10 years | Over 10 years |
|---|---|---|---|---|---|
| Assets | 57 | 75 | 48 | 51 | 0 |
| Liabilities | 4 | 5 | 3 | 4 | 0 |
| **Net balance** | **53** | **70** | **45** | **47** | **0** |

### Hedges of net investments in foreign operations

UBS AG applies hedge accounting for certain net investments in foreign operations. As of 31 December 2016, the positive replacement values and negative replacement values of FX derivatives (mainly FX swaps) designated as hedging instruments in net investment hedge accounting relationships were CHF 122 million and CHF 79 million, respectively (31 December 2015: positive replacement values of CHF 170 million and negative replacement values of CHF 79 million). As of 31 December 2016, the underlying hedged structural exposures in several currencies amounted to CHF 7.5 billion (31 December 2015: CHF 5.5 billion).

Hedges of structural FX exposures in currencies other than the US dollar may be comprised of two jointly designated derivatives as the foreign currency risk may be hedged against the US dollar first and then converted into Swiss francs, the presentation currency of UBS AG, as part of a separate FX derivative transaction. The aggregated notional amount of designated hedging derivatives as of 31 December 2016 was CHF 12.5 billion in total (31 December 2015: CHF 11.2 billion), including CHF 7.5 billion notional values related to US dollar versus Swiss franc swaps and CHF 5.0 billion notional values related to derivatives hedging foreign currencies (other than the US dollar) versus the US dollar. The effective portion of gains and losses of these FX swaps is transferred directly to OCI to offset foreign currency translation (FCT) gains and losses on the net investments in foreign branches and subsidiaries. As such, these FX swaps hedge the structural FX exposure resulting in the accumulation of FCT on the level of individual foreign branches and subsidiaries and hence on the total FCT OCI of UBS AG.

UBS designates certain non-derivative foreign currency financial assets and liabilities of foreign branches or subsidiaries as hedging instruments in net investment hedge accounting arrangements. The FX translation difference recorded in FCT OCI of the non-derivative hedging instrument of one foreign entity offsets the structural FX exposure of another foreign entity. Therefore, the aggregated FCT OCI of UBS AG is unchanged from this hedge designation. As of 31 December 2016, the nominal amount of non-derivative financial assets and liabilities designated as hedging instruments in such net investment hedges was CHF 1.5 billion and CHF 1.5 billion, respectively (31 December 2015: CHF 3.1 billion non-derivative financial assets and CHF 3.1 billion non-derivative financial liabilities).

Ineffectiveness of hedges of net investments in foreign operations was not material in 2016, 2015 and 2014.

### Undiscounted cash flows

The table below provides undiscounted cash flow information for derivative instruments designated in hedge accounting relationships.

**Derivatives designated in hedge accounting relationships (undiscounted cash flows)**

| *CHF billion* | On demand | Due within 1 month | Due between 1 and 3 months | Due between 3 and 12 months | Due between 1 and 5 years | Due after 5 years | Total |
|---|---|---|---|---|---|---|---|
| **Interest rate swaps**[1] | | | | | | | |
| **FX swaps / forwards** | | | | | | | |
| Cash inflows | 0 | 2 | 10 | 0 | 0 | 0 | 11 |
| Cash outflows | 0 | 2 | 10 | 0 | 0 | 0 | 11 |
| **Net cash flows** | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

1 Undiscounted cash inflows and cash outflows of interest rate swaps as of 31 December 2016 were not material as the majority of interest rate swaps designated in hedge accounting relationships are legally settled on a daily basis.

## Note 13 Financial assets available for sale and held to maturity

### a) Financial assets available for sale

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| **Financial assets available for sale by issuer type**[1] | | |
| Debt instruments | | |
| Government and government agencies | 11,650 | 47,245 |
| *of which: US* | *7,779* | *21,424* |
| *of which: Germany* | *1,774* | *8,583* |
| *of which: UK* | *373* | *2,782* |
| *of which: France* | *355* | *3,566* |
| *of which: Netherlands* | *319* | *2,934* |
| Banks | 1,845 | 12,268 |
| Corporates and other | 1,554 | 2,385 |
| Total debt instruments | 15,048 | 61,898 |
| Equity instruments | 628 | 645 |
| Total financial assets available for sale | 15,676 | 62,543 |
| Unrealized gains – before tax | 309 | 462 |
| Unrealized (losses) – before tax | (117) | (171) |
| Net unrealized gains / (losses) – before tax | 193 | 291 |
| Net unrealized gains / (losses) – after tax | 96 | 167 |

1 Refer to Note 22c for more information on product type and fair value hierarchy categorization.

### b) Financial assets held to maturity

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| **Financial assets held to maturity by issuer type** | | |
| Debt instruments | | |
| Government and government agencies | 7,416 | 0 |
| *of which: US* | *4,688* | *0* |
| *of which: Germany* | *1,708* | *0* |
| *of which: France* | *867* | *0* |
| Banks | 1,873 | 0 |
| Total financial assets held to maturity | 9,289 | 0 |

## Note 14 Property, equipment and software

### At historical cost less accumulated depreciation

| CHF million | Own-used properties | Leasehold improvements | IT hardware and communication | Internally generated software | Purchased software | Other machines and equipment | Projects in progress | 31.12.16 | 31.12.15 |
|---|---|---|---|---|---|---|---|---|---|
| **Historical cost** | | | | | | | | | |
| Balance at the beginning of the year | 7,863 | 3,169 | 1,872 | 2,375 | 411 | 862 | 1,270 | 17,823 | 17,442 |
| Additions | 58 | 34 | 198 | 3 | 99 | 32 | 1,347 | 1,770 | 1,846 |
| Disposals / write-offs[1] | (71) | (276) | (568) | (16) | (89) | (83) | 0 | (1,102) | (1,322) |
| Reclassifications | (103) | 522 | 57 | 711 | 0 | 39 | (1,440) | (214)[6] | (35) |
| Foreign currency translation | (15) | (9) | (47) | (36) | (14) | 3 | (53) | (171) | (108) |
| Balance at the end of the year | 7,732 | 3,440 | 1,512 | 3,037 | 408 | 853 | 1,123 | 18,106 | 17,823 |
| **Accumulated depreciation** | | | | | | | | | |
| Balance at the beginning of the year | 4,356 | 2,206 | 1,420 | 1,275 | 276 | 606 | 0 | 10,140 | 10,593 |
| Depreciation | 164 | 191 | 200 | 286 | 49 | 64 | 0 | 954 | 901 |
| Impairment[2] | 11 | 1 | 1 | 9 | 5 | 0 | 0 | 26 | 18 |
| Disposals / write-offs[1] | (71) | (264) | (568) | (16) | (89) | (83) | 0 | (1,090) | (1,270) |
| Reclassifications | (152) | 6 | (1) | 0 | 0 | 1 | 0 | (147)[6] | (25) |
| Foreign currency translation | (8) | (15) | (32) | (13) | (9) | 2 | 0 | (74) | (77) |
| Balance at the end of the year | 4,300 | 2,124 | 1,021 | 1,542 | 233 | 589 | 0 | 9,809 | 10,140 |
| **Net book value at the end of the year[3,4]** | **3,432** | **1,316** | **492** | **1,495** | **175** | **264** | **1,123[5]** | **8,297** | **7,683** |

1 Includes write-offs of fully depreciated assets. 2 Impairment charges recorded in 2016 relate to assets for which the recoverable amount was determined based on value-in-use (recoverable amount of the impaired assets: CHF 31 million Own-used properties, CHF 2 million Leasehold improvements, CHF 28 million Internally generated software, CHF 3 million Purchased software). 3 As of 31 December 2016, contractual commitments to purchase property in the future amounted to approximately CHF 0.3 billion. 4 Includes CHF 21 million related to leased assets, mainly IT hardware and communication. 5 Includes CHF 994 million related to Internally generated software, CHF 110 million related to Own-used properties and CHF 19 million related to Leasehold improvements. 6 Reflects reclassifications to Properties held for sale (CHF 54 million on a net basis) reported within Other assets.

## Note 15 Goodwill and intangible assets

### Introduction

UBS AG performs an impairment test on its goodwill assets on an annual basis or when indicators of impairment exist. UBS AG considers the segments, as reported in Note 2a, as separate cash-generating units (CGUs). The impairment test is performed for each segment to which goodwill is allocated by comparing the recoverable amount, based on its value-in-use, with the carrying amount of the respective segment. An impairment charge is recognized if the carrying amount exceeds the recoverable amount. As of 31 December 2016, total goodwill recognized on the balance sheet was CHF 6.3 billion, of which CHF 1.3 billion, CHF 3.6 billion and CHF 1.4 billion was carried by Wealth Management, Wealth Management Americas and Asset Management, respectively. Based on the impairment testing methodology described below, UBS AG concluded that the goodwill balances as of 31 December 2016 allocated to these segments remain recoverable and thus were not impaired.

### Methodology for goodwill impairment testing

The recoverable amounts are determined using a discounted cash flow model, which has been adapted to use inputs that consider features of the banking business and its regulatory environment. The recoverable amount of a segment is the sum of the discounted earnings attributable to shareholders from the first three forecasted years and the terminal value. The terminal value, which covers all periods beyond the third year, is calculated on the basis of the forecast of third-year profit, the discount rate and the long-term growth rate and is adjusted for the effect of the capital assumed to be needed to support the perpetual growth implied by the long-term growth rate.

The carrying amount for each segment is determined by reference to the Group's equity attribution framework. Within this framework, which is described in the "Capital management" section of this report, we attribute equity to the businesses on the basis of their risk-weighted assets and leverage ratio denominator, their goodwill and intangible assets as well as equity directly associated with activity that Group ALM manages centrally on behalf of the business divisions. The total amount of equity attributed to CGUs can differ from equity attributable to shareholders. The framework is primarily used for purposes of measuring the performance of the businesses and includes certain management assumptions. Attributed equity equals the capital that a segment requires to conduct its business and is considered an appropriate starting point from which to determine the carrying value of the segments. The attributed equity methodology is aligned with the business planning process, the inputs from which are used in calculating the recoverable amounts of the respective CGU. The revision of the equity attribution methodology effective as of 1 January 2017 would have no impact on the outcome of the goodwill impairment test as of 31 December 2016.

→ **Refer to the "Capital management" section of this report for more information on the equity attribution framework**

### Assumptions

Valuation parameters used within UBS AG's impairment test model are linked to external market information, where applicable. The model used to determine the recoverable amount is most sensitive to changes in the forecast earnings available to shareholders in years one to three, to changes in the discount rates and to changes in the long-term growth rate. The applied long-term growth rate is based on long-term economic growth rates for different regions worldwide. Earnings available to shareholders are estimated on the basis of forecast results, which are part of the business plan approved by the BoD.

The discount rates are determined by applying a capital asset pricing model-based approach, as well as considering quantitative and qualitative inputs from both internal and external analysts and the view of management. The discount rates were unchanged between 2015 and 2016.

Key assumptions used to determine the recoverable amounts of each segment are tested for sensitivity by applying a reasonably possible change to those assumptions. Forecast earnings available to shareholders were changed by 20%, the discount rates were changed by 1.5 percentage points and the long-term growth rates were changed by 0.75 percentage points, reflecting the current market environment. Under all scenarios, the recoverable amounts for each segment exceeded the respective carrying amount, such that the reasonably possible changes in key assumptions would not result in impairment.

If the estimated earnings and other assumptions in future periods deviate from the current outlook, the value of goodwill may become impaired in the future, giving rise to losses in the income statement. Recognition of any impairment of goodwill would reduce IFRS equity and net profit. It would not affect cash flows and, as goodwill is required to be deducted from capital under the Basel III capital framework, no effect would be expected on UBS AG's total capital ratios.

## Note 15 Goodwill and intangible assets (continued)

### Discount and growth rates

| | Discount rates | | Growth rates | |
|---|---|---|---|---|
| *In %* | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| Wealth Management | 9.0 | 9.0 | 1.7 | 1.7 |
| Wealth Management Americas | 9.0 | 9.0 | 2.4 | 2.4 |
| Asset Management | 9.0 | 9.0 | 2.4 | 2.4 |
| Investment Bank | 11.0 | 11.0 | 2.4 | 2.4 |

| | Goodwill | Intangible assets | | | | |
|---|---|---|---|---|---|---|
| *CHF million* | Total | Infrastructure | Customer relationships, contractual rights and other | Total | 31.12.16 | 31.12.15 |
| **Historical cost** | | | | | | |
| Balance at the beginning of the year | 6,240 | 761 | 820 | 1,581 | 7,821 | 7,957 |
| Additions | 16 | | 8 | 8 | 24 | 30 |
| Disposals | (2) | | (2) | (2) | (3) | (32) |
| Write-offs | | | (75) | (75) | (75) | (20) |
| Foreign currency translation | 57 | 12 | (12) | 0 | 57 | (114) |
| Balance at the end of the year | 6,311 | 773 | 739 | 1,512 | 7,823 | 7,821 |
| **Accumulated amortization and impairment** | | | | | | |
| Balance at the beginning of the year | | 578 | 675 | 1,253 | 1,253 | 1,171 |
| Amortization | | 38 | 53 | 91 | 91 | 94 |
| Impairment[1] | | | 0 | 0 | 0 | 13 |
| Disposals | | | (1) | (1) | (1) | (1) |
| Write-offs | | | (75) | (75) | (75) | (20) |
| Foreign currency translation | | 10 | (11) | (1) | (1) | (5) |
| Balance at the end of the year | | 626 | 641 | 1,267 | 1,267 | 1,253 |
| **Net book value at the end of the year** | 6,311 | 147 | 98 | 245 | 6,556 | 6,568 |

1 Impairment charges recorded in 2016 and 2015 relate to assets for which the recoverable amount was determined based on value-in-use (recoverable amount of the impaired assets: CHF 3 million for 2016 and CHF 4 million for 2015).

The table below presents goodwill and intangible assets by segment for the year ended 31 December 2016.

| *CHF million* | Wealth Management | Wealth Management Americas | Investment Bank | Asset Management | Corporate Center – Services | Total |
|---|---|---|---|---|---|---|
| **Goodwill** | | | | | | |
| Balance at the beginning of the year | 1,312 | 3,514 | 29 | 1,385 | | 6,240 |
| Additions | 16 | | | | | 16 |
| Disposals | (2) | | | | | (2) |
| Foreign currency translation | (23) | 57 | 7 | 17 | | 57 |
| **Balance at the end of the year** | 1,303 | 3,571 | 36 | 1,401 | | 6,311 |
| **Intangible assets** | | | | | | |
| Balance at the beginning of the year | 38 | 199 | 53 | 8 | 30 | 328 |
| Additions / transfers | 8 | 0 | | | | 8 |
| Disposals | | | 0 | | | 0 |
| Amortization | (4) | (49) | (12) | (4) | (21) | (91) |
| Impairment | | 0 | | | | 0 |
| Foreign currency translation | (1) | 2 | | | | 1 |
| **Balance at the end of the year** | 40 | 152 | 41 | 4 | 9 | 245 |

## Note 15 Goodwill and intangible assets (continued)

The table below presents estimated, aggregated amortization expenses for intangible assets.

| *CHF million* | Intangible assets |
|---|---|
| **Estimated, aggregated amortization expenses for:** | |
| 2017 | 68 |
| 2018 | 58 |
| 2019 | 47 |
| 2020 | 38 |
| 2021 | 6 |
| Thereafter | 19 |
| Not amortized due to indefinite useful life | 9 |
| **Total** | 245 |

## Note 16 Other assets

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Prime brokerage receivables[1] | 9,828 | 11,341 |
| Recruitment loans to financial advisors | 3,087 | 3,184 |
| Other loans to financial advisors | 471 | 418 |
| Bail deposit[2] | 1,213 | 1,221 |
| Accrued interest income | 526 | 462 |
| Accrued income – other | 822 | 844 |
| Prepaid expenses | 1,008 | 1,032 |
| Net defined benefit pension and post-employment assets[3] | 0 | 50 |
| Settlement and clearing accounts | 516 | 402 |
| VAT and other tax receivables | 261 | 397 |
| Properties and other non-current assets held for sale | 111 | 134 |
| Assets of disposal group held for sale[4] | 5,137 | 279 |
| Other | 2,433 | 2,485 |
| **Total other assets** | 25,412 | 22,249 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage receivables are mainly comprised of margin lending receivables. 2 Refer to Note 20b item 1 for more information. 3 Refer to Note 26 for more information. 4 Refer to Note 30 for more information.

# Balance sheet notes: liabilities

## Note 17 Due to banks and customers

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Due to banks | 10,645 | 11,836 |
| Due to customers | 450,199 | 402,522 |
| *of which: demand deposits* | *195,756* | *174,262* |
| *of which: retail savings / deposits* | *170,729* | *161,848* |
| *of which: time deposits* | *77,531* | *60,274* |
| *of which: fiduciary deposits* | *6,184* | *6,139* |
| Total due to banks and customers | 460,844 | 414,358 |

## Note 18 Financial liabilities designated at fair value

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| **Issued debt instruments** | | |
| Equity-linked[1] | 29,831 | 30,965 |
| Rates-linked | 10,150 | 16,587 |
| Credit-linked | 4,101 | 3,652 |
| Fixed-rate | 2,972 | 4,098 |
| Other | 2,875 | 1,231 |
| **Total issued debt instruments** | 49,930 | 56,534 |
| *of which: issued by UBS AG with original maturity greater than one year*[2, 3] | *36,347* | *40,081* |
| **Over-the-counter debt instruments** | | |
| Equity-linked[1] | 1,992 | 2,885 |
| Other | 2,671 | 2,608 |
| **Total over-the-counter debt instruments** | 4,663 | 5,493 |
| *of which: issued by UBS AG with original maturity greater than one year*[2, 4] | *4,210* | *4,497* |
| **Repurchase agreements** | 395 | 849 |
| **Loan commitments and guarantees**[5] | 29 | 119 |
| **Total** | 55,017 | 62,995 |
| *of which: life-to-date own credit (gain) / loss* | *(141)* | *(287)* |

1 Includes investment fund unit-linked instruments issued. 2 Issued by the standalone legal entity UBS AG. Based on original contractual maturity without considering any early redemption features. 3 More than 99% of the balance as of 31 December 2016 was unsecured (31 December 2015: more than 98% of the balance was unsecured). 4 More than 35% of the balance as of 31 December 2016 was unsecured (31 December 2015: more than 35% of the balance was unsecured). 5 Loan commitments recognized as Financial liabilities designated at fair value until drawn and recognized as Loans. See Note 1a item 3o for more information.

As of 31 December 2016 and 31 December 2015, the contractual redemption amount at maturity of financial liabilities designated at fair value through profit or loss was not materially different from the carrying value.

The table on the following page shows the residual contractual maturity of the carrying value of financial liabilities designated at fair value, split between fixed-rate and floating-rate instruments based on the contractual terms, and does not consider any early redemption features. Interest rate ranges for future interest payments related to these financial liabilities designated at fair value have not been included in the table on the following page as a majority of these liabilities are structured products, and therefore the future interest payments are highly dependent upon the embedded derivative and prevailing market conditions at the time each interest payment is made.

→ **Refer to Note 25d for maturity information on an undiscounted cash flow basis**

## Note 18 Financial liabilities designated at fair value (continued)

**Contractual maturity of carrying value**

| *CHF million* | 2017 | 2018 | 2019 | 2020 | 2021 | 2022-2026 | Thereafter | Total 31.12.16 | Total 31.12.15 |
|---|---|---|---|---|---|---|---|---|---|
| **UBS AG[1]** | | | | | | | | | |
| Non-subordinated debt | | | | | | | | | |
| Fixed-rate | 3,979 | 984 | 644 | 262 | 400 | 807 | 2,429 | 9,505 | 10,702 |
| Floating-rate | 17,904 | 4,136 | 3,739 | 3,363 | 1,653 | 4,156 | 7,805 | 42,757 | 49,824 |
| Subtotal | 21,884 | 5,120 | 4,383 | 3,625 | 2,053 | 4,963 | 10,234 | 52,262 | 60,526 |
| **Other subsidiaries[2]** | | | | | | | | | |
| Non-subordinated debt | | | | | | | | | |
| Fixed-rate | 197 | 171 | 842 | 31 | 67 | 68 | 390 | 1,768 | 993 |
| Floating-rate | 495 | 136 | 119 | 0 | 0 | 87 | 150 | 987 | 1,475 |
| Subtotal | 692 | 307 | 961 | 31 | 67 | 155 | 540 | 2,755 | 2,469 |
| **Total** | 22,576 | 5,427 | 5,345 | 3,656 | 2,121 | 5,118 | 10,774 | 55,017 | 62,995 |

1 Comprises instruments issued by the standalone legal entity UBS AG. 2 Comprises instruments issued by subsidiaries of UBS AG.

## Note 19 Debt issued held at amortized cost

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Certificates of deposit | 20,207 | 11,967 |
| Commercial paper | 1,653 | 3,824 |
| Other short-term debt | 4,318 | 5,424 |
| **Short-term debt[1]** | 26,178 | 21,215 |
| Senior fixed-rate bonds | 27,008 | 31,240 |
| *of which: issued by UBS AG with original maturity greater than one year[2]* | *26,850* | *31,078* |
| Covered bonds | 5,836 | 8,490 |
| Subordinated debt | 11,554 | 12,600 |
| *of which: low-trigger loss-absorbing tier 2 capital instruments* | *10,429* | *10,346* |
| *of which: non-Basel III-compliant tier 2 capital instruments* | *1,125* | *2,254* |
| Debt issued through the central bond institutions of the Swiss regional or cantonal banks | 8,302 | 8,237 |
| Other long-term debt | 121 | 577 |
| *of which: issued by UBS AG with original maturity greater than one year[2]* | *94* | *278* |
| **Long-term debt[3]** | 52,820 | 61,144 |
| **Total debt issued held at amortized cost[4]** | 78,998 | 82,359 |

1 Debt with an original maturity of less than one year. 2 Issued by the standalone legal entity UBS AG. Based on original contractual maturity without considering any early redemption features. 100% of the balance as of 31 December 2016 was unsecured (31 December 2015: 100% of the balance was unsecured). 3 Debt with original maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features. 4 Net of bifurcated embedded derivatives with a net positive fair value of CHF 38 million as of 31 December 2016 (31 December 2015: net negative fair value of CHF 130 million).

UBS AG uses interest rate and foreign exchange derivatives to manage the risks inherent in certain debt instruments held at amortized cost. In certain cases, UBS AG applies hedge accounting for interest rate risk as discussed in Note 1a item 3k and Note 12. As a result of applying hedge accounting, the carrying value of debt issued increased by CHF 821 million and by CHF 1,024 million as of 31 December 2016 and 2015, respectively, reflecting changes in fair value due to interest rate movements.

## Note 19 Debt issued held at amortized cost (continued)

Subordinated debt consists of unsecured debt obligations that are contractually subordinated in right of payment to all other present and future non-subordinated obligations of the respective issuing entity. All of the subordinated debt instruments outstanding as of 31 December 2016 pay a fixed rate of interest.

The table below shows the residual contractual maturity of the carrying value of debt issued, split between fixed-rate and floating-rate based on the contractual terms, and does not consider any early redemption features. The effects from interest rate swaps, which are used to hedge various fixed-rate debt issuances by changing the repricing characteristics into those similar to floating-rate debt, are also not considered in the table below.

→ **Refer to Note 25d for maturity information on an undiscounted cash flow basis**

**Contractual maturity of carrying value**

| *CHF million, except where indicated* | 2017 | 2018 | 2019 | 2020 | 2021 | 2022-2026 | Thereafter | Total 31.12.16 | Total 31.12.15 |
|---|---|---|---|---|---|---|---|---|---|
| UBS AG[1] | | | | | | | | | |
| Non-subordinated debt | | | | | | | | | |
| Fixed-rate | 22,624 | 7,662 | 4,026 | 4,356 | 2,779 | 1,550 | 3 | 42,999 | 40,153 |
| Interest rates (range in %) | 0-5.9 | 0.5-6.6 | 2.4-4.0 | 0-4.9 | 1.3-1.4 | 4.0-4.0 | 0 | | |
| Floating-rate | 12,113 | 1,017 | 1,017 | 254 | 0 | 0 | 1,536 | 15,937 | 17,907 |
| Subordinated debt | | | | | | | | | |
| Fixed-rate | 418 | 0 | 0 | 0 | 0 | 11,136 | 0 | 11,554 | 12,600 |
| Interest rates (range in %) | 4.1-7.4 | | | | | 4.8-8.8 | | | |
| Subtotal | 35,154 | 8,679 | 5,043 | 4,610 | 2,779 | 12,686 | 1,539 | 70,490 | 70,659 |
| Other subsidiaries[2] | | | | | | | | | |
| Non-subordinated debt | | | | | | | | | |
| Fixed-rate | 736 | 793 | 745 | 731 | 975 | 3,537 | 990 | 8,507 | 11,692 |
| Interest rates (range in %) | 0-8.1 | 0-3.8 | 0-2.9 | 0-3.2 | 0-2.4 | 0-4.1 | 0-2.8 | | |
| Floating-rate | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 8 |
| Subtotal | 736 | 793 | 745 | 731 | 975 | 3,537 | 990 | 8,507 | 11,700 |
| **Total** | 35,890 | 9,473 | 5,788 | 5,342 | 3,754 | 16,223 | 2,529 | 78,998 | 82,359 |

1 Comprises debt issued by the standalone legal entity UBS AG. 2 Comprises debt issued by subsidiaries of UBS AG.

## Note 20 Provisions and contingent liabilities

### a) Provisions

| *CHF million* | Operational risks[1] | Litigation, regulatory and similar matters[2] | Restructuring | Loan commitments and guarantees | Real estate | Employee benefits[5] | Other | Total 31.12.16 | Total 31.12.15 |
|---|---|---|---|---|---|---|---|---|---|
| Balance at the beginning of the year | 47 | 2,983 | 624 | 35 | 157 | 198 | 120 | 4,163 | 4,366 |
| Increase in provisions recognized in the income statement | 34 | 906 | 408 | 18 | 11 | 5 | 48 | 1,430 | 1,778 |
| Release of provisions recognized in the income statement | (3) | (98) | (113) | (9) | (5) | (30) | (29) | (288) | (337) |
| Provisions used in conformity with designated purpose | (26) | (554) | (415) | 0 | (23) | (85) | (49) | (1,152) | (1,660) |
| Capitalized reinstatement costs | 0 | 0 | (1) | 0 | 0 | 0 | 0 | (1) | 5 |
| Reclassifications | 0 | 0 | 0 | 10 | (2) | 0 | 0 | 7 | 9 |
| Foreign currency translation / unwind of discount | (1) | 25 | (5) | 0 | 1 | (11) | 2 | 10 | 3 |
| **Balance at the end of the year** | 50 | 3,261 | 498[3] | 54 | 138[4] | 77 | 91 | 4,169 | 4,163 |

1 Comprises provisions for losses resulting from security risks and transaction processing risks. 2 Comprises provisions for losses resulting from legal, liability and compliance risks. 3 Includes personnel related restructuring provisions of CHF 150 million as of 31 December 2016 (31 December 2015: CHF 110 million) and provisions for onerous lease contracts of CHF 348 million as of 31 December 2016 (31 December 2015: CHF 514 million). 4 Includes reinstatement costs for leasehold improvements of CHF 85 million as of 31 December 2016 (31 December 2015: CHF 94 million) and provisions for onerous lease contracts of CHF 53 million as of 31 December 2016 (31 December 2015: CHF 62 million). 5 Includes provisions for sabbatical and anniversary awards as well as provisions for severance which are not part of restructuring provisions.

Restructuring provisions primarily relate to onerous lease contracts and severance payments. The use of onerous lease provisions is driven by the maturities of the underlying lease contracts. Severance-related provisions are used within a short time period, usually within six months, but potential changes in amount may be triggered when natural staff attrition reduces the number of people affected by a restructuring and therefore the estimated costs.

Information on provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 20b. There are no material contingent liabilities associated with the other classes of provisions.

**Note 20 Provisions and contingent liabilities (continued)**

## b) Litigation, regulatory and similar matters

UBS operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS AG and / or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where UBS may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which UBS believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. UBS makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that UBS has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against UBS, but are nevertheless expected to be, based on UBS's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to select matters could be significant.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

## Note 20 Provisions and contingent liabilities (continued)

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in Note 20a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require us to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although we therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, we believe that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. For example, the Non-Prosecution Agreement (NPA) described in item 5 of this Note, which we entered into with the US Department of Justice (DOJ), Criminal Division, Fraud Section in connection with our submissions of benchmark interest rates, including, among others, the British Bankers' Association London Interbank Offered Rate (LIBOR), was terminated by the DOJ based on its determination that we had committed a US crime in relation to foreign exchange matters. As a consequence, UBS AG pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, paid a USD 203 million fine and is subject to a three-year term of probation. A guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for UBS. Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations and may permit financial market utilities to limit, suspend or terminate our participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining our capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital management" section of this report.

**Provisions for litigation, regulatory and similar matters by business division and Corporate Center unit[1,2]**

| *CHF million* | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | CC – Services | CC – Group ALM | CC – Non-core and Legacy Portfolio | Total 31.12.16 | Total 31.12.15 |
|---|---|---|---|---|---|---|---|---|---|---|
| Balance at the beginning of the year | 245 | 459 | 83 | 16 | 585 | 310 | 0 | 1,284 | 2,983 | 3,053 |
| Increase in provisions recognized in the income statement | 76 | 113 | 7 | 5 | 43 | 5 | 0 | 606 | 856 | 1,263 |
| Release of provisions recognized in the income statement | (6) | (15) | (4) | (6) | (2) | (3) | 0 | (11) | (48) | (166) |
| Provisions used in conformity with designated purpose | (19) | (137) | (9) | (9) | (13) | (49) | 0 | (318) | (554) | (1,174) |
| Foreign currency translation / unwind of discount | (4) | 6 | 0 | 0 | 3 | (4) | 0 | 24 | 25 | 7 |
| **Balance at the end of the year** | 292 | 425 | 78 | 5 | 616 | 259 | 0 | 1,585 | 3,261 | 2,983 |

1 Provisions, if any, for the matters described in this disclosure are recorded in Wealth Management (item 3), Wealth Management Americas (item 4), the Investment Bank (item 8), CC – Services (item 7) and CC – Non-core and Legacy Portfolio (item 2). Provisions, if any, for the matters described in this disclosure in items 1 and 6 are allocated between Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in this disclosure in item 5 are allocated between the Investment Bank, CC – Services and CC – Non-core and Legacy Portfolio. 2 Provision movements are grouped by item for purposes of this table and may therefore differ from those shown in the table in Note 20a.

**Note 20 Provisions and contingent liabilities (continued)**

### 1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions. It is possible that implementation of automatic tax information exchange and other measures relating to cross-border provision of financial services could give rise to further inquiries in the future. UBS has received disclosure orders from the Swiss Federal Tax Administration (FTA) to transfer information based on requests for international administrative assistance in tax matters. The requests concern a number of UBS account numbers pertaining to current and former clients and are based on data from 2006 and 2008. UBS has taken steps to inform affected clients about the administrative assistance proceedings and their procedural rights, including the right to appeal. The requests are based on data received from the German authorities, who seized certain data related to UBS clients booked in Switzerland during their investigations and have apparently shared this data with other European countries. UBS expects additional countries to file similar requests. In addition, the Swiss Federal Supreme Court ruled in September 2016 that the double taxation agreement between the Netherlands and Switzerland provides a sufficient legal basis for an administrative assistance group request without specifying the names of the targeted taxpayers, which makes it more likely that similar requests for administrative assistance will be granted by the FTA.

In 2013, as a result of investigations in France, UBS (France) S.A. and UBS AG were put under formal examination ("*mise en examen*") for complicity in having illicitly solicited clients on French territory and were declared witness with legal assistance ("*témoin assisté*") regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons. In 2014, UBS AG was placed under formal examination with respect to the potential charges of laundering of proceeds of tax fraud, and the investigating judges ordered UBS AG to provide bail ("*caution*") of EUR 1.1 billion. UBS AG appealed the determination of the bail amount, but both the appeal court ("*Cour d'Appel*") and the French Supreme Court ("*Cour de Cassation")* upheld the bail amount and rejected the appeal in full in late 2014. UBS AG filed an application to the European Court of Human Rights (ECHR) to challenge various aspects of the French court's decision. In January 2017, the ECHR denied UBS's application. The Swiss Federal Administrative Court ruled in October 2016 that in the administrative assistance proceedings related to the French bulk request, UBS has the right to appeal all final FTA client data disclosure orders. In September 2015, the former CEO of UBS Wealth Management was placed under formal examination in connection with these proceedings. In addition, the investigating judges have sought to issue arrest warrants against three Swiss-based former employees of UBS AG who did not appear when summoned by the investigating judge.

In 2015, UBS (France) S.A. was placed under formal examination for complicity regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons for the years 2004 until 2008 and declared witness with legal assistance for the years 2009 to 2012. A bail of EUR 40 million was imposed and subsequently reduced by the Court of Appeals to EUR 10 million.

In February 2016, the investigating judge notified UBS AG and UBS (France) S.A. that he has closed his investigation. In July 2016, UBS AG and UBS (France) S.A. received the National Financial Prosecutor's recommendation ("*réquisitoire*"). As permitted, the parties have commented on the recommendation. The next procedural step will be for the judge to issue his final decree ("*ordonnance de renvoi en correctionnelle*"), which would set out any charges for which UBS AG and UBS (France) S.A. will be tried, both legally and factually, and transfer the case to court.

UBS has been notified by the Belgian investigating judge that it is under formal investigation ("*inculpé*") regarding the laundering of proceeds of tax fraud and of banking, financial solicitation by unauthorized persons and serious tax fraud.

In 2015, UBS received inquiries from the US Attorney's Office for the Eastern District of New York and from the US Securities and Exchange Commission (SEC), which are investigating potential sales to US persons of bearer bonds and other unregistered securities in possible violation of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and the registration requirements of the US securities laws. UBS is cooperating with the authorities in these investigations.

UBS has, and reportedly numerous other financial institutions have, received inquiries from authorities concerning accounts relating to the Fédération Internationale de Football Association (FIFA) and other constituent soccer associations and related persons and entities. UBS is cooperating with authorities in these inquiries.

Our balance sheet at 31 December 2016 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages. A subsidiary of UBS, UBS Real Estate Securities Inc. (UBS RESI), acquired pools of residential mortgage loans from originators and (through an affiliate) deposited them into securitization trusts. In this manner, from 2004 through 2007, UBS RESI sponsored approximately USD 80 billion in RMBS, based on the original principal balances of the securities issued.

UBS RESI also sold pools of loans acquired from originators to third-party purchasers. These whole loan sales during the period 2004 through 2007 totaled approximately USD 19 billion in original principal balance.

We were not a significant originator of US residential loans. A subsidiary of UBS originated approximately USD 1.5 billion in US residential mortgage loans during the period in which it was active from 2006 to 2008 and securitized less than half of these loans.

*RMBS-related lawsuits concerning disclosures:* UBS is named as a defendant relating to its role as underwriter and issuer of RMBS in lawsuits related to approximately USD 2.5 billion in original face amount of RMBS underwritten or issued by UBS. Of the USD 2.5 billion in original face amount of RMBS that remains at issue in these cases, approximately USD 1.2 billion was issued in offerings in which a UBS subsidiary transferred underlying loans (the majority of which were purchased from third-party originators) into a securitization trust and made representations and warranties about those loans (UBS-sponsored RMBS). The remaining USD 1.3 billion of RMBS to which these cases relate was issued by third parties in securitizations in which UBS acted as underwriter (third-party RMBS).

In connection with certain of these lawsuits, UBS has indemnification rights against surviving third-party issuers or originators for losses or liabilities incurred by UBS, but UBS cannot predict the extent to which it will succeed in enforcing those rights.

UBS is a defendant in a lawsuit brought by the National Credit Union Administration (NCUA) as conservator for certain failed credit unions, asserting misstatements and omissions in the offering documents for RMBS purchased by the credit unions. The lawsuit was filed in the US District Court for the District of Kansas. The original principal balance at issue in the case is approximately USD 1.15 billion. In March 2017, UBS and NCUA reached an agreement in principle to resolve this matter. In the second quarter of 2016, UBS resolved a similar case brought by the NCUA in the US District Court for the Southern District of New York (SDNY) relating to RMBS with an original principal balance of approximately USD 400 million, for a total of approximately USD 69.8 million, in addition to reasonable attorneys' fees incurred by NCUA.

*Lawsuits related to contractual representations and warranties concerning mortgages and RMBS:* When UBS acted as an RMBS sponsor or mortgage seller, we generally made certain representations relating to the characteristics of the underlying loans. In the event of a material breach of these representations, we were in certain circumstances contractually obligated to repurchase the loans to which the representations related or to indemnify certain parties against losses. UBS has received demands to repurchase US residential mortgage loans as to which UBS made certain representations at the time the loans were transferred to the securitization trust aggregating approximately USD 4.1 billion in original principal balance. Of this amount, UBS considers claims relating to approximately USD 2 billion in original principal balance to be resolved, including claims barred by the statute of limitations. Substantially all of the remaining claims are in litigation, including the matters described in the next paragraph. UBS believes that new demands to repurchase US residential mortgage loans are time-barred under a decision rendered by the New York Court of Appeals.

In 2012, certain RMBS trusts filed an action (Trustee Suit) in the SDNY seeking to enforce UBS RESI's obligation to repurchase loans in the collateral pools for three RMBS securitizations with an original principal balance of approximately USD 2 billion, for which Assured Guaranty Municipal Corp., a financial guaranty insurance company, had previously demanded repurchase. A bench trial in the SDNY adjourned in May 2016. Approximately 9,000 loans were at issue in the trial. In September 2016, the court issued an order ruling on numerous legal and factual issues and applying those rulings to 20 exemplar loans. The court further ordered that a lead master be appointed to apply the court's rulings to the loans that remain at issue following the trial. With respect to the loans subject to the Trustee Suit that were originated by institutions still in existence, UBS intends to enforce its indemnity rights against those institutions.

We also have tolling agreements with certain institutional purchasers of RMBS concerning their potential claims related to substantial purchases of UBS-sponsored or third-party RMBS.

## Note 20 Provisions and contingent liabilities (continued)

**Provision for claims related to sales of residential mortgage-backed securities and mortgages**

| *USD million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Balance at the beginning of the year | 1,218 | 849 |
| Increase in provision recognized in the income statement | 589 | 662 |
| Release of provision recognized in the income statement | 0 | (94) |
| Provision used in conformity with designated purpose | (307) | (199) |
| **Balance at the end of the year** | 1,500 | 1,218 |

*Mortgage-related regulatory matters:* In 2014, UBS received a subpoena from the US Attorney's Office for the Eastern District of New York issued pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), which seeks documents and information related to UBS's RMBS business from 2005 through 2007. In 2015, the Eastern District of New York identified a number of transactions that are the focus of their inquiry, and has subsequently provided a revised list of transactions. We have provided and continue to provide information. UBS continues to respond to the FIRREA subpoena and to subpoenas from the New York State Attorney General and other state attorneys general relating to its RMBS business. In addition, UBS has also been responding to inquiries from both the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) (who is working in conjunction with the US Attorney's Office for Connecticut and the DOJ) and the SEC relating to trading practices in connection with purchases and sales of mortgage-backed securities in the secondary market from 2009 through 2014. We are cooperating with the authorities in these matters.

As reflected in the table "Provision for claims related to sales of residential mortgage-backed securities and mortgages," our balance sheet at 31 December 2016 reflected a provision of USD 1,500 million with respect to matters described in this item 2. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

**Note 20 Provisions and contingent liabilities (continued)**

3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier (CSSF). Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds now face severe losses, and the Luxembourg funds are in liquidation. The last reported net asset value of the two Luxembourg funds before revelation of the Madoff scheme was approximately USD 1.7 billion in the aggregate although that figure likely includes fictitious profit reported by BMIS. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members. UBS (Luxembourg) S.A. and certain other UBS subsidiaries are responding to inquiries by Luxembourg investigating authorities, without, however, being named as parties in those investigations. In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims on behalf of the funds against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees. The amounts claimed are approximately EUR 890 million and EUR 305 million, respectively. The liquidators have filed supplementary claims for amounts that the funds may possibly be held liable to pay the BMIS Trustee. These amounts claimed by the liquidator are approximately EUR 564 million and EUR 370 million, respectively. In addition, a large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff scheme. The majority of these cases are pending in Luxembourg, where appeals were filed by the claimants against the 2010 decisions of the court in which the claims in a number of test cases were held to be inadmissible. In 2014, the Luxembourg Court of Appeal dismissed one test case appeal in its entirety, which decision was appealed by the investor. In 2015, the Luxembourg Supreme Court found in favor of UBS and dismissed the investor's appeal. In June 2016, the Luxembourg Court of Appeal dismissed the remaining test cases in their entirety. In the US, the BMIS Trustee filed claims in 2010 against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2 billion. Following a motion by UBS, in 2011, the SDNY dismissed all of the BMIS Trustee's claims other than claims for recovery of fraudulent conveyances and preference payments that were allegedly transferred to UBS on the ground that the BMIS Trustee lacks standing to bring such claims. In 2013, the Second Circuit affirmed the District Court's decision and, in 2014, the US Supreme Court denied the BMIS Trustee's petition seeking review of the Second Circuit ruling. In November 2016, the bankruptcy court issued an opinion dismissing the remaining claims for recovery of subsequent transfers of fraudulent conveyances and preference payments on the ground that the US Bankruptcy Code does not apply to transfers that occurred outside the US. The BMIS Trustee has indicated that he will appeal. In 2014, several claims, including a purported class action, were filed in the US by BMIS customers against UBS entities, asserting claims similar to the ones made by the BMIS Trustee, seeking unspecified damages. One claim was voluntarily withdrawn by the plaintiff. In 2015, following a motion by UBS, the SDNY dismissed the two remaining claims on the basis that the New York courts did not have jurisdiction to hear the claims against the UBS entities. The plaintiff in one of those claims has appealed the dismissal. In Germany, certain clients of UBS are exposed to Madoff-managed positions through third-party funds and funds administered by UBS entities in Germany. A small number of claims have been filed with respect to such funds. In 2015, a court of appeal ordered UBS to pay EUR 49 million, plus interest of approximately EUR 15.3 million.

### 4. Puerto Rico

Declines since August 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (the funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) have led to multiple regulatory inquiries, as well as customer complaints and arbitrations with aggregate claimed damages of approximately USD 2.0 billion, of which claims with aggregate claimed damages of approximately USD 861 million have been resolved through settlements, arbitration or withdrawal of the claim. The claims are filed by clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and / or who used their UBS account assets as collateral for UBS non-purpose loans; customer complaint and arbitration allegations include fraud, misrepresentation and unsuitability of the funds and of the loans. A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2015, defendants' motion to dismiss was denied. Defendants' requests for permission to appeal that ruling were denied by the Puerto Rico Court of Appeals and the Puerto Rico Supreme Court. In 2014, a federal class action complaint also was filed against various UBS entities, certain members of UBS PR senior management, and the co-manager of certain of the funds seeking damages for investor losses in the funds during the period from May 2008 through May 2014. Defendants had moved to dismiss that complaint, and in December 2016, defendants' motion to dismiss was granted in part and denied in part. In 2015, a class action was filed in Puerto Rico state court against UBS PR seeking equitable relief in the form of a stay of any effort by UBS PR to collect on non-purpose loans it acquired from UBS Bank USA in December 2013 based on plaintiffs' allegation that the loans are not valid. The trial court denied defendants' motion to dismiss the action based on a forum selection clause in the loan agreements; the Puerto Rico Supreme Court has stayed the action pending its review of defendants' appeal from that ruling.

In 2014, UBS reached a settlement with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico (OCFI) in connection with OCFI's examination of UBS's operations from January 2006 through September 2013, pursuant to which UBS is paying up to an aggregate of USD 7.7 million in investor education contributions and restitution.

In 2015, the SEC and the Financial Industry Regulatory Authority (FINRA) announced settlements with UBS PR of their separate investigations stemming from the 2013 market events. Without admitting or denying the findings in either matter, UBS PR agreed in the SEC settlement to pay USD 15 million and USD 18.5 million in the FINRA matter. We also understand that the DOJ is conducting a criminal inquiry into the impermissible reinvestment of non-purpose loan proceeds. We are cooperating with the authorities in this inquiry.

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of approximately USD 3 billion of bonds by the System in 2008 and sought damages of over USD 800 million. Defendants' motion to dismiss is pending. In September 2016, the System announced its intention to join the action as a plaintiff, and the court has since ordered that plaintiffs must file an amended complaint.

Also, in 2013, an SEC Administrative Law Judge dismissed a case brought by the SEC against two UBS executives, finding no violations. The charges had stemmed from the SEC's investigation of UBS's sale of closed-end funds in 2008 and 2009, which UBS settled in 2012. Beginning in 2012, two federal class action complaints, which were subsequently consolidated, were filed against various UBS entities, certain of the funds, and certain members of UBS PR senior management, seeking damages for investor losses in the funds during the period from January 2008 through May 2012 based on allegations similar to those in the SEC action. In September 2016, the court denied plaintiffs' motion for class certification. In October 2016, plaintiffs filed a petition with the US Court of Appeals for the First Circuit seeking permission to bring an interlocutory appeal challenging the denial of their motion for class certification. Defendants have filed an opposition to plaintiffs' petition.

Beginning in 2015, agencies and public corporations of the Commonwealth have defaulted on certain interest payments, and in July 2016, the Commonwealth defaulted on payments on its general obligation debt. Executive orders of the Governor that have diverted funds to pay for essential services instead of debt payments and stayed any action to enforce creditors' rights on the Puerto Rico bonds continue to be in effect. In June 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board is authorized to impose, and has imposed, a stay on exercise of creditors' rights. These events, further defaults, any further legislative action to create a legal means of restructuring Commonwealth obligations or to impose additional oversight on the Commonwealth's finances, or any restructuring of the Commonwealth's obligations, may increase the number of claims against UBS concerning Puerto Rico securities, as well as potential damages sought.

Our balance sheet at 31 December 2016 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

### 5. Foreign exchange, LIBOR, and benchmark rates, and other trading practices

*Foreign exchange-related regulatory matters*: Following an initial media report in 2013 of widespread irregularities in the foreign exchange markets, UBS immediately commenced an internal review of its foreign exchange business, which includes our precious metals and related structured products businesses. Since then, various authorities have commenced investigations concerning possible manipulation of foreign exchange markets, including FINMA, the Swiss Competition Commission (WEKO), the DOJ, the SEC, the US Commodity Futures Trading Commission (CFTC), the Board of Governors of the Federal Reserve System (Federal Reserve Board), the California State Attorney General, the UK Financial Conduct Authority (FCA) (to which certain responsibilities of the UK Financial Services Authority (FSA) have passed), the UK Serious Fraud Office (SFO), the Australian Securities and Investments Commission (ASIC), the Hong Kong Monetary Authority (HKMA), the Korea Fair Trade Commission (KFTC) and the Brazil Competition Authority (CADE). In addition, WEKO is, and a number of other authorities reportedly are, investigating potential manipulation of precious metals prices. UBS has taken and will continue to take appropriate action with respect to certain personnel as a result of its ongoing review.

In 2014, UBS reached settlements with the FCA and the CFTC in connection with their foreign exchange investigations, and FINMA issued an order concluding its formal proceedings with respect to UBS relating to its foreign exchange and precious metals businesses. UBS has paid a total of approximately CHF 774 million to these authorities, including GBP 234 million in fines to the FCA, USD 290 million in fines to the CFTC, and CHF 134 million to FINMA representing confiscation of costs avoided and profits. In 2015, the Federal Reserve Board and the Connecticut Department of Banking issued an Order to Cease and Desist and Order of Assessment of a Civil Monetary Penalty Issued upon Consent (Federal Reserve Order) to UBS AG. As part of the Federal Reserve Order, UBS AG paid a USD 342 million civil monetary penalty.

In 2015, the DOJ's Criminal Division (Criminal Division) terminated the December 2012 Non-Prosecution Agreement (NPA) with UBS AG related to UBS's submissions of benchmark interest rates. As a result, UBS AG entered into a plea agreement with the Criminal Division pursuant to which UBS AG pleaded guilty to a one-count criminal information filed in the US District Court for the District of Connecticut charging UBS AG with one count of wire fraud in violation of 18 USC Sections 1343 and 2. Sentencing occurred on 5 January 2017. Under the plea agreement, UBS AG has paid a USD 203 million fine and is subject to a three-year term of probation starting on the sentencing date. The criminal information charges that, between approximately 2001 and 2010, UBS AG engaged in a scheme to defraud counterparties to interest rate derivatives transactions by manipulating benchmark interest rates, including Yen LIBOR. The Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA, including fraudulent and deceptive currency trading and sales practices in conducting certain foreign exchange market transactions with clients and collusion with other participants in certain foreign exchange markets.

We have ongoing obligations to cooperate with these authorities and to undertake certain remediation, including actions to improve UBS's processes and controls.

UBS has been granted conditional leniency or conditional immunity by the Antitrust Division of the DOJ (Antitrust Division) from prosecution for EUR / USD collusion and entered into a non-prosecution agreement covering other currency pairs. As a result, UBS AG will not be subject to prosecutions, fines or other sanctions for antitrust law violations by the Antitrust Division, subject to UBS AG's continuing cooperation. However, the conditional leniency and conditional immunity grant does not bar government agencies from asserting other claims and imposing sanctions against UBS AG, as evidenced by the settlements and ongoing investigations referred to above. UBS has also been granted conditional immunity by authorities in certain jurisdictions, including WEKO, in connection with potential competition law violations relating to foreign exchange and precious metals businesses and, as a result, will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in those jurisdictions, subject to UBS AG's continuing cooperation as the leniency applicant.

Investigations relating to foreign exchange and precious metals matters by numerous authorities, including the CFTC, remain ongoing notwithstanding these resolutions.

*Foreign exchange-related civil litigation:* Putative class actions have been filed since November 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. They allege collusion by the defendants and assert claims under the antitrust laws and for unjust enrichment. In 2015, additional putative class actions were filed in federal court in New York against UBS and other banks on behalf of a putative class of persons who entered into or held any foreign exchange futures contracts and options on foreign exchange futures contracts since 1 January 2003. The complaints assert claims under the Commodity Exchange Act (CEA) and the US antitrust laws. In 2015, a consolidated complaint was filed on behalf of both putative classes of persons covered by the US federal court class actions described above. UBS has entered into a settlement agreement that would resolve all of these US federal court class actions. The agreement, which has been preliminarily approved by the court and is subject to final court approval, requires, among other things, that UBS pay an aggregate of USD 141 million and provide cooperation to the settlement classes.

**Note 20 Provisions and contingent liabilities (continued)**

A putative class action has been filed in federal court in New York against UBS and other banks on behalf of participants, beneficiaries, and named fiduciaries of plans qualified under the Employee Retirement Income Security Act of 1974 (ERISA) for whom a defendant bank provided foreign currency exchange transactional services, exercised discretionary authority or discretionary control over management of such ERISA plan, or authorized or permitted the execution of any foreign currency exchange transactional services involving such plan's assets. The complaint asserts claims under ERISA. The parties filed a stipulation to dismiss the case with prejudice. The plaintiffs have appealed the dismissal.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of a putative class of persons and businesses in the US who directly purchased foreign currency from the defendants and their co-conspirators for their own end use. That action has been transferred to federal court in New York. Motions to dismiss are pending.

In 2016, a putative class action was filed in federal court in New York against UBS and numerous other banks on behalf of a putative class of persons and entities who had indirectly purchased FX instruments from a defendant or co-conspirator in the US. The complaint asserts claims under federal and state antitrust laws. Motions to dismiss will be filed.

In 2015, UBS was added to putative class actions pending against other banks in federal court in New York and other jurisdictions on behalf of putative classes of persons who had bought or sold physical precious metals and various precious metal products and derivatives. The complaints in these lawsuits assert claims under the antitrust laws and the CEA, and other claims. In October 2016, the court in New York granted UBS's motions to dismiss the putative class actions relating to gold and silver. Plaintiffs in those cases are seeking to amend their complaints to add new allegations about UBS. UBS's motion to dismiss the putative class action relating to platinum and palladium remains pending.

*LIBOR and other benchmark-related regulatory matters*: Numerous government agencies, including the SEC, the CFTC, the DOJ, the FCA, the SFO, the Monetary Authority of Singapore (MAS), the HKMA, FINMA, the various state attorneys general in the US and competition authorities in various jurisdictions have conducted or are continuing to conduct investigations regarding submissions with respect to LIBOR and other benchmark rates. These investigations focus on whether there were improper attempts by UBS, among others, either acting on our own or together with others, to manipulate LIBOR and other benchmark rates at certain times.

In 2012, UBS reached settlements with the FSA, the CFTC and the Criminal Division of the DOJ in connection with their investigations of benchmark interest rates. At the same time, FINMA issued an order concluding its formal proceedings with respect to UBS relating to benchmark interest rates. UBS has paid a total of approximately CHF 1.4 billion in fines and disgorgement, including GBP 160 million in fines to the FSA, USD 700 million in fines to the CFTC, USD 500 million in fines to the DOJ, and CHF 59 million in disgorgement to FINMA. UBS Securities Japan Co. Ltd. (UBSSJ) entered into a plea agreement with the DOJ under which it entered a plea to one count of wire fraud relating to the manipulation of certain benchmark interest rates, including Yen LIBOR. UBS entered into an NPA with the DOJ, which (along with the plea agreement) covered conduct beyond the scope of the conditional leniency / immunity grants described below, required UBS to pay the USD 500 million fine to the DOJ after the sentencing of UBSSJ and provided that any criminal penalties imposed on UBSSJ at sentencing be deducted from the USD 500 million fine. Under the NPA, we agreed, among other things, that for two years from 18 December 2012 UBS would not commit any US crime and we would advise DOJ of any potentially criminal conduct by UBS or any of its employees relating to violations of US laws concerning fraud or securities and commodities markets. The term of the NPA was extended by one year to 18 December 2015. In 2015, the Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA.

In 2014, UBS reached a settlement with the European Commission (EC) regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and paid a EUR 12.7 million fine, which was reduced to this level based in part on UBS's cooperation with the EC. In December 2016, UBS reached a settlement with WEKO regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and received full immunity from fines. The MAS, HKMA and the Japan Financial Services Agency have also resolved investigations of UBS (and in some cases, other banks). We have ongoing obligations to cooperate with the authorities with whom we have reached resolutions and to undertake certain remediation with respect to benchmark interest rate submissions.

Investigations by the CFTC, ASIC and other governmental authorities remain ongoing notwithstanding these resolutions.

**Note 20 Provisions and contingent liabilities (continued)**

UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO, in connection with potential antitrust or competition law violations related to submissions for Yen LIBOR and Euroyen TIBOR. As a result of these conditional grants, UBS will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in the jurisdictions where we have conditional immunity in connection with the matters covered by the conditional grants, subject to our continuing cooperation as leniency applicant. However, since the Secretariat of WEKO has asserted that UBS does not qualify for full immunity, UBS has been unable to reach a settlement with WEKO, and therefore the investigation will continue. Furthermore, the conditional leniency and conditional immunity grants we have received do not bar government agencies from asserting other claims and imposing sanctions against us, as evidenced by the settlements and ongoing investigations referred to above. In addition, as a result of the conditional leniency agreement with the DOJ, we are eligible for a limit on liability to actual rather than treble damages were damages to be awarded in any civil antitrust action under US law based on conduct covered by the agreement and for relief from potential joint and several liability in connection with such civil antitrust action, subject to our satisfying the DOJ and the court presiding over the civil litigation of our cooperation. The conditional leniency and conditional immunity grants do not otherwise affect the ability of private parties to assert civil claims against us.

*LIBOR and other benchmark-related civil litigation*: A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. All of the complaints allege manipulation, through various means, of various benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, USD ISDAFIX rates and other benchmark rates, and seek unspecified compensatory and other damages under varying legal theories.

In 2013, the US district court in the USD LIBOR action dismissed the federal antitrust and racketeering claims of certain USD LIBOR plaintiffs and a portion of their claims brought under the CEA and state common law. Certain plaintiffs appealed the decision to the Second Circuit, which, in May 2016, vacated the district court's ruling finding no antitrust injury and remanded the case back to the district court for a further determination on whether plaintiffs have antitrust standing. In December 2016, the district court again dismissed plaintiffs' antitrust claims, this time for lack of personal jurisdiction over UBS and other foreign banks. In 2014, the court in one of the Euroyen TIBOR lawsuits dismissed certain of the plaintiff's claims, including federal antitrust claims. In 2015, the same court dismissed plaintiff's federal racketeering claims and affirmed its previous dismissal of plaintiff's antitrust claims. UBS and other defendants in other lawsuits including those related to EURIBOR, CHF LIBOR, GBP LIBOR and SIBOR have filed motions to dismiss. UBS has entered into an agreement with representatives of a class of bondholders to settle their USD LIBOR class action. The agreement is subject to court approval.

Since September 2014, putative class actions have been filed in federal court in New York and New Jersey against UBS and other financial institutions, among others, on behalf of parties who entered into interest rate derivative transactions linked to ISDAFIX. The complaints, which have since been consolidated into an amended complaint, allege that the defendants conspired to manipulate ISDAFIX rates from 1 January 2006 through January 2014, in violation of US antitrust laws and certain state laws, and seek unspecified compensatory damages, including treble damages. In March 2016, the court in the ISDAFIX action denied in substantial part defendants' motion to dismiss, holding that plaintiffs have stated Sherman Act, breach-of-contract and unjust-enrichment claims against defendants, including UBS AG.

*Government bonds:* Putative class actions have been filed in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. The complaints generally allege that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction. They assert claims under the antitrust laws and the CEA and for unjust enrichment. The cases have been consolidated in the SDNY. Following filing of these complaints, UBS and reportedly other banks are responding to investigations and requests for information from various authorities regarding US Treasury securities and other government bond trading practices. As a result of its review to date, UBS has taken appropriate action.

With respect to additional matters and jurisdictions not encompassed by the settlements and order referred to above, our balance sheet at 31 December 2016 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver.

FINMA has issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and may continue to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among others, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

Our balance sheet at 31 December 2016 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 7. Banco UBS Pactual tax indemnity

Pursuant to the 2009 sale of Banco UBS Pactual S.A. (Pactual) by UBS to BTG Investments, LP (BTG), BTG has submitted contractual indemnification claims that UBS estimates amount to approximately BRL 2.6 billion, including interest and penalties, which is net of liabilities retained by BTG. The claims pertain principally to several tax assessments issued by the Brazilian tax authorities against Pactual relating to the period from December 2006 through March 2009, when UBS owned Pactual. These assessments are being challenged in administrative and judicial proceedings. The majority of these assessments relate to the deductibility of goodwill amortization in connection with UBS's 2006 acquisition of Pactual and payments made to Pactual employees through various profit-sharing plans. In 2015, an intermediate administrative court issued a decision that was largely in favor of the tax authority with respect to the goodwill amortization assessment. In May 2016, the highest level of the administrative court agreed to review this decision on a number of the significant issues.

### 8. Investigation of UBS's role in initial public offerings in Hong Kong

The Hong Kong Securities and Futures Commission (SFC) has been conducting investigations into UBS's role as a sponsor of certain initial public offerings listed on the Hong Kong Stock Exchange. In October 2016, the SFC informed UBS that it intends to commence action against UBS and certain UBS employees with respect to sponsorship work in those offerings. If such action is taken, there may be financial ramifications for UBS, including fines and obligations to pay investor compensation, and suspension of UBS's ability to provide corporate finance advisory services in Hong Kong for a period of time. On 16 January 2017, a writ was filed by the SFC with Hong Kong's High Court in which UBS is named as one of six defendants from whom the SFC is seeking compensation in an unspecified amount for losses incurred by certain shareholders of China Forestry Holdings Company Limited, for whom UBS acted as a sponsor in connection with their 2009 listing application.

## Note 21 Other liabilities

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Prime brokerage payables[1] | 31,973 | 45,306 |
| Amounts due under unit-linked investment contracts | 9,286 | 15,718 |
| Compensation-related liabilities | 5,256 | 5,122 |
| *of which: accrued expenses* | *2,367* | *2,827* |
| *of which: other deferred compensation plans* | *1,623* | *1,559* |
| *of which: net defined benefit pension and post-employment liabilities[2]* | *1,266* | *736* |
| Third-party interest in consolidated investment funds | 751 | 594 |
| Settlement and clearing accounts | 1,011 | 893 |
| Current and deferred tax liabilities[3] | 911 | 810 |
| VAT and other tax payables | 487 | 446 |
| Deferred income | 168 | 210 |
| Accrued interest expenses | 1,571 | 1,438 |
| Other accrued expenses | 2,427 | 2,492 |
| Liabilities of disposal group held for sale[4] | 5,213 | 235 |
| Other | 1,390 | 1,343 |
| **Total other liabilities** | 60,443 | 74,606 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage payables are mainly comprised of client securities financing and deposits. 2 Refer to Note 26 for more information. 3 Refer to Note 8 for more information. 4 Refer to Note 30 for more information.

# Additional information

## Note 22 Fair value measurement

This Note provides fair value measurement information for both financial and non-financial instruments and is structured as follows:
a) Valuation principles
b) Valuation governance
c) Fair value hierarchy
d) Valuation adjustments
e) Transfers between Level 1 and Level 2
f) Level 3 instruments: valuation techniques and inputs
g) Level 3 instruments: sensitivity to changes in unobservable input assumptions
h) Level 3 instruments: movements during the period
i) Financial instruments not measured at fair value

### a) Valuation principles

Fair value is defined as the price that would be received for the sale of an asset or paid to transfer a liability in an orderly transaction between market participants in the principal market (or most advantageous market, in the absence of a principal market) as of the measurement date. In measuring fair value, UBS AG uses various valuation approaches and applies a hierarchy for prices and inputs that maximizes the use of observable market data, if available.

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which the instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:
– Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
– Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data; or
– Level 3 – valuation techniques for which significant inputs are not based on observable market data.

If available, fair values are determined using quoted prices in active markets for identical assets or liabilities. An active market is one in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing data on an ongoing basis. Assets and liabilities that are quoted and traded in an active market are valued at the currently quoted price multiplied by the number of units of the instrument held.

Where the market for a financial instrument or non-financial asset or liability is not active, fair value is established using a valuation technique, including pricing models. Valuation techniques involve the use of estimates, the extent of which depends on the complexity of the instrument and the availability of market-based data. Valuation adjustments may be made to allow for additional factors, including model, liquidity, credit and funding risks, which are not explicitly captured within the valuation technique, but which would nevertheless be considered by market participants when establishing a price. The limitations inherent in a particular valuation technique are considered in the determination of an asset or liability's classification within the fair value hierarchy.

Many cash instruments and over-the-counter (OTC) derivative contracts have bid and offer prices that can be observed in the marketplace. Bid prices reflect the highest price that a party is willing to pay for an asset. Offer prices represent the lowest price that a party is willing to accept for an asset. In general, long positions are measured at a bid price and short positions at an offer price, reflecting the prices at which the instruments could be transferred under normal market conditions. Offsetting positions in the same financial instrument are marked at the mid-price within the bid-offer spread.

Generally, the unit of account for a financial instrument is the individual instrument, and UBS AG applies valuation adjustments at an individual instrument level, consistent with that unit of account. However, if certain conditions are met, UBS AG may estimate the fair value of a portfolio of financial assets and liabilities with substantially similar and offsetting risk exposures on the basis of the net open risks.

For transactions where the valuation technique used to measure fair value requires significant inputs that are not based on observable market data, the financial instrument is initially recognized at the transaction price. This initial recognition amount may differ from the fair value obtained using the valuation technique. Any such difference is deferred and not recognized in the income statement and referred to as deferred day-1 profit or loss.

→ **Refer to Note 22d for more information**

**Note 22 Fair value measurement (continued)**

## b) Valuation governance

UBS AG's fair value measurement and model governance framework includes numerous controls and other procedural safeguards that are intended to maximize the quality of fair value measurements reported in the financial statements. New products and valuation techniques must be reviewed and approved by key stakeholders from risk and finance control functions. Responsibility for the ongoing measurement of financial and non-financial instruments at fair value resides with the business divisions. In carrying out their valuation responsibilities, the businesses are required to consider the availability and quality of external market data and to provide justification and rationale for their fair value estimates.

Fair value estimates are validated by risk and finance control functions, which are independent of the business divisions. Independent price verification is performed by finance through benchmarking the business divisions' fair value estimates with observable market prices and other independent sources. Controls and governance are in place to ensure the quality of third-party pricing sources where used. For instruments where valuation models are used to determine fair value, independent valuation and model control groups within finance and risk evaluate UBS AG's models on a regular basis, including valuation and model input parameters as well as pricing. As a result of the valuation controls employed, valuation adjustments may be made to the business divisions' estimates of fair value to align with independent market data and the relevant accounting standard.

→ **Refer to Note 22d for more information**

## Note 22 Fair value measurement (continued)

### c) Fair value hierarchy

The table below provides the fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value. The narrative that follows describes the different product types, valuation techniques used in measuring their fair value, including significant valuation inputs and assumptions used, and the factors determining their classification within the fair value hierarchy.

**Determination of fair values from quoted market prices or valuation techniques[1]**

| | 31.12.16 | | | | 31.12.15 | | | |
|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Assets measured at fair value on a recurring basis** | | | | | | | | |
| Financial assets held for trading[2] | 76,046 | 14,377 | 1,689 | 92,112 | 96,388 | 21,946 | 2,070 | 120,405 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *10,500* | *1,319* | *0* | *11,820* | *12,911* | *3,277* | *5* | *16,193* |
| *Corporate and municipal bonds* | *58* | *6,722* | *591* | *7,371* | *232* | *8,108* | *698* | *9,038* |
| *Loans* | *0* | *1,356* | *681* | *2,037* | *0* | *1,769* | *816* | *2,585* |
| *Investment fund units* | *6,114* | *3,521* | *63* | *9,698* | *6,062* | *5,697* | *168* | *11,928* |
| *Asset-backed securities* | *0* | *470* | *215* | *685* | *0* | *958* | *201* | *1,159* |
| *Equity instruments* | *50,916* | *397* | *65* | *51,378* | *62,420* | *1,475* | *89* | *63,984* |
| *Financial assets for unit-linked investment contracts* | *8,459* | *591* | *74* | *9,123* | *14,764* | *663* | *93* | *15,519* |
| Positive replacement values | 434 | 155,428 | 2,549 | 158,411 | 545 | 164,025 | 2,865 | 167,435 |
| *of which:* | | | | | | | | |
| *Interest rate contracts* | *8* | *57,703* | *278* | *57,988* | *1* | *74,443* | *88* | *74,531* |
| *Credit derivative contracts* | *0* | *2,562* | *1,313* | *3,875* | *0* | *5,384* | *1,272* | *6,656* |
| *Foreign exchange contracts* | *263* | *75,607* | *222* | *76,092* | *304* | *64,886* | *484* | *65,675* |
| *Equity / index contracts* | *1* | *17,274* | *729* | *18,003* | *2* | *15,938* | *996* | *16,936* |
| *Commodity contracts* | *0* | *2,269* | *8* | *2,277* | *0* | *3,363* | *25* | *3,388* |
| Financial assets designated at fair value | 39,641 | 23,304 | 2,079 | 65,024 | 170 | 2,338 | 3,301 | 5,808 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *39,439* | *4,361* | *0* | *43,799* | *4* | *0* | *0* | *4* |
| *Corporate and municipal bonds* | *15* | *16,860* | *0* | *16,875* | *0* | *0* | *0* | *0* |
| *Loans (including structured loans)* | *0* | *2,043* | *1,195* | *3,238* | *0* | *2,311* | *1,677* | *3,988* |
| *Structured reverse repurchase and securities borrowing agreements* | *0* | *40* | *644* | *684* | *0* | *40* | *1,510* | *1,550* |
| *Other* | *187* | *0* | *240* | *427* | *165* | *12* | *113* | *266* |
| Financial assets available for sale | 6,299 | 8,891 | 486 | 15,676 | 34,204 | 27,653 | 686 | 62,543 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *5,444* | *450* | *0* | *5,894* | *31,108* | *1,986* | *0* | *33,094* |
| *Corporate and municipal bonds* | *646* | *4,939* | *12* | *5,596* | *2,992* | *22,186* | *27* | *25,205* |
| *Investment fund units* | *0* | *51* | *126* | *177* | *0* | *64* | *139* | *202* |
| *Asset-backed securities* | *0* | *3,381* | *0* | *3,381* | *0* | *3,396* | *0* | *3,396* |
| *Equity instruments* | *204* | *71* | *336* | *611* | *103* | *21* | *517* | *641* |
| Non-financial assets | | | | | | | | |
| Precious metals and other physical commodities | 4,583 | 0 | 0 | 4,583 | 3,670 | 0 | 0 | 3,670 |
| **Assets measured at fair value on a non-recurring basis** | | | | | | | | |
| Other assets[3] | 5,060 | 131 | 56 | 5,248 | 266 | 69 | 78 | 413 |
| **Total assets measured at fair value** | 132,064 | 202,132 | 6,860 | 341,056 | 135,242 | 216,037 | 9,001 | 360,280 |

## Note 22 Fair value measurement (continued)

**Determination of fair values from quoted market prices or valuation techniques (continued)[1]**

| | 31.12.16 | | | | 31.12.15 | | | |
|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Liabilities measured at fair value on a recurring basis** | | | | | | | | |
| Trading portfolio liabilities | 18,808 | 3,898 | 119 | 22,825 | 25,476 | 3,504 | 158 | 29,137 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *5,573* | *648* | *0* | *6,221* | *5,997* | *845* | *0* | *6,842* |
| *Corporate and municipal bonds* | *12* | *2,927* | *37* | *2,976* | *12* | *2,370* | *90* | *2,471* |
| *Investment fund units* | *484* | *91* | *20* | *595* | *666* | *52* | *20* | *738* |
| *Asset-backed securities* | *0* | *5* | *0* | *5* | *0* | *2* | *0* | *2* |
| *Equity instruments* | *12,740* | *227* | *62* | *13,028* | *18,802* | *235* | *47* | *19,084* |
| Negative replacement values | 539 | 149,255 | 4,016 | 153,810 | 640 | 158,494 | 3,296 | 162,430 |
| *of which:* | | | | | | | | |
| *Interest rate contracts* | *12* | *51,990* | *475* | *52,476* | *2* | *67,225* | *326* | *67,553* |
| *Credit derivative contracts* | *0* | *3,269* | *1,538* | *4,807* | *0* | *5,350* | *1,303* | *6,653* |
| *Foreign exchange contracts* | *274* | *71,668* | *148* | *72,089* | *286* | *62,965* | *233* | *63,484* |
| *Equity / index contracts* | *1* | *20,254* | *1,854* | *22,109* | *1* | *19,722* | *1,433* | *21,156* |
| *Commodity contracts* | *0* | *2,040* | *1* | *2,041* | *0* | *3,222* | *0* | *3,222* |
| Financial liabilities designated at fair value | 2 | 44,007 | 11,008 | 55,017 | 1 | 52,321 | 10,673 | 62,995 |
| *of which:* | | | | | | | | |
| *Issued debt instruments* | *0* | *40,242* | *9,688* | *49,930* | *0* | *47,197* | *9,337* | *56,534* |
| *Over-the-counter debt instruments* | *2* | *3,611* | *1,050* | *4,663* | *2* | *4,719* | *773* | *5,493* |
| *Structured repurchase agreements* | *0* | *130* | *266* | *395* | *0* | *293* | *556* | *849* |
| *Loan commitments and guarantees* | *0* | *25* | *5* | *29* | *0* | *113* | *7* | *119* |
| Other liabilities – amounts due under unit-linked investment contracts | 0 | 9,286 | 0 | 9,286 | 0 | 15,718 | 0 | 15,718 |
| **Liabilities measured at fair value on a non-recurring basis** | | | | | | | | |
| Other liabilities[3] | 0 | 5,213 | 0 | 5,213 | 0 | 235 | 0 | 235 |
| **Total liabilities measured at fair value** | 19,349 | 211,660 | 15,143 | 246,152 | 26,117 | 230,272 | 14,127 | 270,515 |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 31 December 2016, net bifurcated embedded derivative assets held at fair value, totaling CHF 50 million (of which CHF 58 million were net Level 2 assets and CHF 8 million net Level 2 liabilities), were recognized on the balance sheet within Due to customers and Debt issued. As of 31 December 2015, net bifurcated embedded derivative liabilities held at fair value, totaling CHF 130 million (of which CHF 106 million were net Level 2 assets and CHF 236 million net Level 2 liabilities), were recognized on the balance sheet within Debt issued. 2 Financial assets held for trading do not include precious metals and other physical commodities. 3 Other assets and other liabilities primarily consist of assets held for sale as well as assets and liabilities of a disposal group held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell. Refer to Note 30 for more information.

**Note 22 Fair value measurement (continued)**

## Valuation techniques

Valuation techniques are used to value positions for which a market price is not available from market sources. This includes certain less liquid debt and equity instruments, certain exchange-traded derivatives and all derivatives transacted in the OTC market. UBS AG uses widely recognized valuation techniques for determining the fair value of financial and non-financial instruments that are not actively traded and quoted. The most frequently applied valuation techniques include discounted value of expected cash flows, relative value and option pricing methodologies.

Discounted value of expected cash flows is a valuation technique that measures fair value using estimated expected future cash flows from assets or liabilities and then discounts these cash flows using a discount rate or discount margin that reflects the credit and / or funding spreads required by the market for instruments with similar risk and liquidity profiles to produce a present value. When using such valuation techniques, expected future cash flows are estimated using an observed or implied market price for the future cash flows or by using industry standard cash flow projection models. The discount factors within the calculation are generated using industry standard yield curve modeling techniques and models.

Relative value models measure fair value based on the market prices of equivalent or comparable assets or liabilities, making adjustments for differences between the characteristics of the observed instrument and the instrument being valued.

Option pricing models incorporate assumptions regarding the behavior of future price movements of an underlying referenced asset or assets to generate a probability-weighted future expected payoff for the option. The resulting probability-weighted expected payoff is then discounted using discount factors generated from industry standard yield curve modeling techniques and models. The option pricing model may be implemented using a closed-form analytical formula or other mathematical techniques (e.g., binomial tree or Monte Carlo simulation).

Where available, valuation techniques use market-observable assumptions and inputs. If such data is not available, inputs may be derived by reference to similar assets in active markets, from recent prices for comparable transactions or from other observable market data. In such cases, the inputs selected are based on historical experience and practice for similar or analogous instruments, derivation of input levels based on similar products with observable price levels and knowledge of current market conditions and valuation approaches.

For more complex instruments and instruments not traded in an active market, fair values may be estimated using a combination of observed transaction prices, consensus pricing services and relevant quotes. Consideration is given to the nature of the quotes (e.g., indicative or firm) and the relationship of recently evidenced market activity to the prices provided by consensus pricing services. UBS AG also uses internally developed models, which are typically based on valuation methods and techniques recognized as standard within the industry.

Assumptions and inputs used in valuation techniques include benchmark interest rate curves, credit and funding spreads used in estimating discount rates, bond and equity prices, equity index prices, foreign exchange rates, levels of market volatility and correlation. Refer to Note 22f for more information. The discount curves used by UBS AG incorporate the funding and credit characteristics of the instruments to which they are applied.

## Financial instruments excluding derivatives: product description, valuation and classification in the fair value hierarchy

### Government bills and bonds

Product description: government bills and bonds include fixed-rate, floating-rate and inflation-linked bills and bonds issued by sovereign governments.

Valuation: these instruments are generally valued using prices obtained directly from the market. Instruments that cannot be priced directly using active market data are valued using discounted cash flow valuation techniques that incorporate market data for similar government instruments.

Fair value hierarchy: government bills and bonds are generally traded in active markets with prices that can be obtained directly from these markets, resulting in classification as Level 1, while the remaining positions are classified as Level 2.

### Corporate and municipal bonds

Product description: corporate bonds include senior, junior and subordinated debt issued by corporate entities. Municipal bonds are issued by state and local governments. While most instruments are standard fixed- or floating-rate securities, some may have more complex coupon or embedded option features.

Valuation: corporate and municipal bonds are generally valued using prices obtained directly from the market for the security, or similar securities, adjusted for seniority, maturity and liquidity. When prices are not available, instruments are valued using discounted cash flow valuation techniques incorporating the credit spread of the issuer or similar issuers. For convertible bonds where no directly comparable price is available, issuances may be priced using a convertible bond model.

Fair value hierarchy: corporate and municipal bonds are generally classified as Level 1 or Level 2 depending on the depth of trading activity behind price sources. Level 3 instruments have no suitable pricing information available and also cannot be referenced to other securities issued by the same issuer. Therefore, such instruments are measured based on price levels for similar issuers adjusted for relative tenor and issuer quality.

### Traded loans and loans designated at fair value

Product description: these instruments include fixed-rate loans, corporate loans, recently originated commercial real estate loans and contingent lending transactions.

Valuation: loans are valued directly using market prices that reflect recent transactions or quoted dealer prices where available. Where no market price data are available, loans are valued using relative value benchmarking using pricing derived from debt instruments in comparable entities or different products in the same entity, or by using a credit default swap valuation technique, which requires inputs for credit spreads, credit recovery rates and interest rates. Recently originated commercial real estate loans are measured using a securitization approach based on rating agency guidelines. The valuation of the contingent lending transactions is dependent on actuarial mortality levels and actuarial life insurance policy lapse rates. Mortality and lapse rate assumptions are based on external actuarial estimations for large homogeneous pools, and contingencies are derived from a range relative to the actuarially expected amount.

Fair value hierarchy: instruments with suitably deep and liquid pricing information are classified as Level 2, while any positions requiring the use of valuation techniques, or for which the price sources have insufficient trading depth, are classified as Level 3.

### Investment fund units

Product description: investment fund units are pools of assets, generally equity instruments and bonds, broken down to redeemable units.

Valuation: investment fund units are predominantly exchange-traded, with readily available quoted prices in liquid markets. Where market prices are not available, fair value may be measured using net asset values (NAV), taking into account any restrictions imposed upon redemption.

Fair value hierarchy: listed units are classified as Level 1, provided there is sufficient trading activity to justify active market classification, while other positions are classified as Level 2. Positions for which NAV is not available or which are not redeemable at the measurement date or shortly thereafter are classified as Level 3.

### Asset-backed securities (ABS)

Product description: ABS include residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS), other asset-backed securities (ABS) and collateralized debt obligations (CDO) and are instruments generally issued through the process of securitization of underlying interest-bearing assets.

Valuation: for liquid securities, the valuation process will use trade and price data, updated for movements in market levels between the time of trading and the time of valuation. Less liquid instruments are measured using discounted expected cash flows incorporating price data for instruments or indices with similar risk profiles. Inputs to discounted expected cash flow techniques include asset prepayment rates, discount margin or discount yields, asset default rates and asset loss on default severity.

Fair value hierarchy: RMBS, CMBS and ABS are generally classified as Level 2. However, if significant inputs are unobservable, or if market or fundamental data are not available, they are classified as Level 3.

### Equity instruments

Product description: equity instruments include stocks and shares, private equity positions and units held in hedge funds.

Valuation: listed equity instruments are generally valued using prices obtained directly from the market. Unlisted equity holdings, including private equity positions, are initially marked at their transaction price and are revalued when reliable evidence of price movement becomes available or when the position is deemed to be impaired. Fair value for units held in hedge funds is measured based on their published NAV, taking into account any restrictions imposed upon redemption.

Fair value hierarchy: the majority of equity securities are actively traded on public stock exchanges where quoted prices are readily and regularly available, resulting in Level 1 classification. Units held in hedge funds are classified as Level 2, except for positions for which published NAV is not available or which are not redeemable at the measurement date or shortly thereafter, in which case such positions are classified as Level 3.

### Financial assets for unit-linked investment contracts

Product description: unit-linked investment contracts allow investors to invest in a pool of assets through issued investment units.

Valuation: the majority of assets are listed on exchanges and fair values are determined using quoted prices.

Fair value hierarchy: most assets are classified as Level 1 if actively traded, or Level 2 if trading is not active. However, instruments for which prices are not readily available are classified as Level 3.

### Structured (reverse) repurchase agreements

Product description: structured (reverse) repurchase agreements are securities purchased under resale agreements and securities sold under repurchase agreements.

Valuation: these instruments are valued using discounted expected cash flow techniques. The discount rate applied is based on funding curves that are specific to the collateral eligibility terms for the contract in question.

Fair value hierarchy: collateral terms for these positions are not standard and therefore funding spread levels used for valuation purposes cannot be observed in the market. As a result, these positions are mostly classified as Level 3.

### Financial liabilities designated at fair value

Product description: debt instruments, primarily comprised of equity-, rates- and credit-linked issued notes, which are held at fair value under the fair value option. These instruments are tailored specifically to the holder's risk or investment appetite with structured coupons or payoffs.

Valuation: the risk management and the valuation approaches for these instruments are closely aligned with the equivalent derivatives business and the underlying risk, and the valuation techniques used for this component are the same as the relevant valuation techniques described below. For example, equity-linked notes should be referenced to equity / index contracts and credit-linked notes should be referenced to credit derivative contacts.

Fair value hierarchy: observability is closely aligned with the equivalent derivatives business and the underlying risk.

→ **Refer to Note 18 for more information on financial liabilities designated at fair value**

→ **Refer to Note 22d for more information on own credit adjustments related to financial liabilities designated at fair value**

### Amounts due under unit-linked investment contracts

Product description: the financial liability represents the amounts due to unit holders.

Valuation: the fair values of investment contract liabilities are determined by reference to the fair value of the corresponding assets.

Fair value hierarchy: the liabilities themselves are not actively traded, but are mainly referenced to instruments that are actively traded and are therefore classified as Level 2.

## Derivative instruments: product description, valuation and classification in the fair value hierarchy

The curves used for discounting expected cash flows in the valuation of collateralized derivatives reflect the funding terms associated with the relevant collateral arrangement for the instrument being valued. These collateral arrangements differ across counterparties with respect to the eligible currency and interest terms of the collateral. The majority of collateralized derivatives are measured using a discount curve that is based on funding rates derived from overnight interest in the cheapest eligible currency for the respective counterparty collateral agreement.

Uncollateralized and partially collateralized derivatives are discounted using the LIBOR (or equivalent) curve for the currency of the instrument. As described in Note 22d, the fair value of uncollateralized and partially collateralized derivatives is then adjusted by CVA, DVA and FVA as applicable, to reflect an estimation of the effect of counterparty credit risk, UBS AG's own credit risk and funding costs and benefits.

### Interest rate contracts

Product description: interest rate swap contracts include interest rate swaps, basis swaps, cross-currency swaps, inflation swaps and interest rate forwards, often referred to as forward-rate agreements (FRA). Interest rate option contracts include caps and floors, swaptions, swaps with complex payoff profiles and other more complex interest rate options.

Valuation: interest rate swap contracts are valued by estimating future interest cash flows and discounting those cash flows using a rate that reflects the appropriate funding rate for the position being measured. The yield curves used to estimate future index levels and discount rates are generated using market standard yield curve models using interest rates associated with current market activity. The key inputs to the models are interest rate swap rates, FRA rates, short-term interest rate futures prices, basis swap spreads and inflation swap rates. Interest rate option contracts are valued using various market standard option models, using inputs that include interest rate yield curves, inflation curves, volatilities and correlations. The volatility and correlation inputs within the models are implied from market data based on market observed prices for standard option instruments trading within the market. Option models used to value more exotic products have a number of model parameter inputs that require calibration to enable the exotic model to price standard option instruments to the price levels observed in the market. When the maturity of the interest rate swap or option contract exceeds the term for which standard market quotes are observable for a significant input parameter, the contracts are valued by extrapolation from the last observable point using standard assumptions or by reference to another observable comparable input parameter to represent a suitable proxy for that portion of the term.

Fair value hierarchy: the majority of interest rate swaps are classified as Level 2 as the standard market contracts that form the inputs for yield curve models are generally traded in active and observable markets. Options are generally treated as Level 2 as the calibration process enables the model output to be validated to active market levels. Models calibrated in this way are then used to revalue the portfolio of both standard options as well as more exotic products. In most cases, there are active and observable markets for the standard market instruments that form the inputs for yield curve models as well as the financial instruments from which volatility and correlation inputs are derived. Exotic options for which appropriate volatility or correlation input levels cannot be implied from observable market data are classified as Level 3. Interest rate swap or option contracts are classified as Level 3 when the term exceeds standard market observable quotes.

## Note 22 Fair value measurement (continued)

### Credit derivative contracts

Product description: a credit derivative is a financial instrument that transfers credit risk related to a single underlying entity, a portfolio of underlying entities or a pool of securitized referenced assets. Credit derivative products include credit default swaps (CDS) on single names, indices, bespoke portfolios and securitized products, plus first to default swaps and certain total return swaps (TRS).

Valuation: credit derivative contracts are valued using industry standard models based primarily on market credit spreads, upfront pricing points and implied recovery rates. Where a derivative credit spread is not directly available it may be derived from the price of the reference cash bond. Correlation is an additional input for certain portfolio credit derivatives. Asset-backed credit derivatives are valued using a similar valuation technique to the underlying security with an adjustment to reflect the funding differences between cash and synthetic form. Inputs include prepayment rates, default rates, loss severity, discount margin / rate.

Fair value hierarchy classification: single entity and portfolio credit derivative contracts are classified as Level 2 when credit spreads, recovery rates and correlations are determined from actively traded observable market data. Where the underlying reference name(s) are not actively traded and the correlation cannot be directly mapped to actively traded tranche instruments, these contracts are classified as Level 3. Asset-backed credit derivatives follow the characteristics of the underlying security and are therefore distributed across Level 2 and Level 3.

### Foreign exchange contracts

Product description: this includes open spot and forward foreign exchange (FX) contracts and OTC FX option contracts. OTC FX option contracts include standard call and put options, options with multiple exercise dates, path-dependent options, options with averaging features, options with discontinuous payoff characteristics, options on a number of underlying FX rates and multi-dimensional FX option contracts, which have a dependency on multiple FX pairs.

Valuation: open spot FX contracts are valued using the FX spot rate observed in the market. Forward FX contracts are valued using the FX spot rate adjusted for forward pricing points observed from standard market-based sources. OTC FX option contracts are valued using market standard option valuation models. The models used for shorter-dated options (i.e., maturities of five years or less) tend to be different than those used for longer-dated options because the models needed for longer-dated OTC FX contracts require additional consideration of interest rate and FX rate interdependency. Inputs to the option valuation models include spot FX rates, FX forward points, FX volatilities, interest rate yield curves, interest rate volatilities and correlations. The inputs for volatility and correlation are implied through the calibration of observed prices for standard option contracts trading within the market. The valuation for multiple-dimensional FX options uses a multi-local volatility model, which is calibrated to the observed FX volatilities for all relevant FX pairs.

Fair value hierarchy: the markets for both FX spot and FX forward pricing points are both actively traded and observable and therefore such FX contracts are generally classified as Level 2. A significant proportion of OTC FX option contracts are classified as Level 2 as inputs are derived mostly from standard market contracts traded in active and observable markets. OTC FX option contracts classified as Level 3 include multiple-dimensional FX options and long-dated FX exotic option contracts where there is no active market from which to derive volatility or correlation inputs. The inputs used to value these OTC FX option contracts are calculated using consensus pricing services without an underlying principal market, historical asset prices or by extrapolation.

### Equity / index contracts

Product description: equity / index contracts are equity forward contracts and equity option contracts. Equity option contracts include market standard single or basket stock or index call and put options as well as equity option contracts with more complex features.

Valuation: equity forward contracts have a single stock or index underlying and are valued using market standard models. The key inputs to the models are stock prices, estimated dividend rates and equity funding rates (which are implied from prices of forward contracts observed in the market). Estimated cash flows are then discounted using market standard discounted cash flow models using a rate that reflects the appropriate funding rate for that portion of the portfolio. When no market data is available for the instrument maturity, they are valued by extrapolation of available data, use of historical dividend data, or use of data for a related equity. Equity option contracts are valued using market standard models that estimate the equity forward level as described for equity forward contracts and incorporate inputs for stock volatility and for correlation between stocks within a basket. The probability-weighted expected option payoff generated is then discounted using market standard discounted cash flow models using a rate that reflects the appropriate funding rate for that portion of the portfolio. When volatility, forward or correlation inputs are not available, they are valued using extrapolation of available data, historical dividend, correlation or volatility data, or the equivalent data for a related equity.

Fair value hierarchy: as inputs are derived mostly from standard market contracts traded in active and observable markets, a significant proportion of equity forward contracts are classified as Level 2. Equity option positions for which inputs are derived from standard market contracts traded in active and observable markets are also classified as Level 2. Level 3 positions are those for which volatility, forward or correlation inputs are not observable.

### Commodity contracts

Product description: commodity derivative contracts include forward, swap and option contracts on individual commodities and on commodity indices.

Valuation: commodity forward and swap contracts are measured using market standard models that use market forward levels on standard instruments. Commodity option contracts are measured using market standard option models that estimate the commodity forward level as described for commodity forward and swap contracts, incorporating inputs for the volatility of the underlying index or commodity. For commodity options on baskets of commodities or bespoke commodity indices, the valuation technique also incorporates inputs for the correlation between different commodities or commodity indices.

Fair value hierarchy: individual commodity contracts are typically classified as Level 2 because active forward and volatility market data are available.

→ **Refer to Note 12 for more information on derivative instruments**

## d) Valuation adjustments

The output of a valuation technique is always an estimate of a fair value that cannot be measured with complete certainty. As a result, valuations are adjusted, where appropriate and when such factors would be considered by market participants in estimating fair value, to reflect close-out costs, credit exposure, model-driven valuation uncertainty, funding costs and benefits, trading restrictions and other factors. Valuation adjustments are an important component of fair value for assets and liabilities that are measured using valuation techniques. Such adjustments are applied to reflect uncertainties within the fair value measurement process, to adjust for an identified model simplification or to incorporate an aspect of fair value that requires an overall portfolio assessment rather than an evaluation based on an individual instrument level characteristic.

### Day-1 reserves

For new transactions where the valuation technique used to measure fair value requires significant inputs that are not based on observable market data, the financial instrument is initially recognized at the transaction price. The transaction price may differ from the fair value obtained using a valuation technique where any such difference is deferred and not initially recognized in the income statement. These day-1 profit or loss reserves are reflected, where appropriate, as valuation adjustments.

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period.

Deferred day-1 profit or loss related to financial instruments other than financial assets available for sale is released into *Net trading income* when pricing of equivalent products or the underlying parameters become observable or when the transaction is closed out.

Deferred day-1 profit or loss related to financial assets available for sale is released into *Other comprehensive income* when pricing of equivalent products or the underlying parameters become observable and is released into *Other income* when the assets are sold.

**Deferred day-1 profit or loss**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| **Balance at the beginning of the year** | 421 | 480 | 486 |
| Profit / (loss) deferred on new transactions | 254 | 268 | 344 |
| (Profit) / loss recognized in the income statement | (290) | (321) | (384) |
| (Profit) / loss recognized in other comprehensive income | (23) | | |
| Foreign currency translation | 9 | (6) | 35 |
| **Balance at the end of the year** | 371 | 421 | 480 |

## Note 22 Fair value measurement (continued)

### Own credit

In addition to considering the valuation of the derivative risk component, the valuation of financial liabilities designated at fair value also requires consideration of the funded component and specifically the own credit component of fair value. Own credit risk is reflected in the valuation of UBS AG's fair value option liabilities where this component is considered relevant for valuation purposes by UBS AG's counterparties and other market participants. However, own credit risk is not reflected in the valuation of UBS AG's liabilities that are fully collateralized or for other obligations for which it is established market practice not to include an own credit component.

The own credit presentation requirements of IFRS 9, *Financial Instruments,* were adopted as of 1 January 2016. From this date onward, changes in the fair value of financial liabilities designated at fair value through profit or loss related to own credit are recognized in *Other comprehensive income* directly within *Retained Earnings*. As UBS AG does not hedge changes in own credit arising on financial liabilities designated at fair value, presenting own credit within *Other comprehensive income* does not create or increase an accounting mismatch in the income statement. The unrealized and any realized own credit recognized in *Other comprehensive income* will not be reclassified to the income statement in future periods. Comparative period information was not restated.

Own credit is estimated using an own credit adjustment curve (OCA), which incorporates observable market data, including market-observed secondary prices for UBS AG senior debt, UBS AG credit default swap (CDS) spreads and senior debt curves of peers. The table below summarizes the effects of own credit adjustments related to financial liabilities designated at fair value. The change in unrealized own credit for the period ended consists of changes in fair value that are attributable to the change in UBS AG's credit spreads, as well as the effect of changes in fair values attributable to factors other than credit spreads, such as redemptions, effects from time decay and changes in interest and other market rates. Realized own credit is recognized when an instrument with an associated unrealized own credit adjustment is repurchased prior to the contractual maturity date. Life-to-date amounts reflect the cumulative unrealized change since initial recognition.

→ **Refer to Note 18 for more information on financial liabilities designated at fair value**

**Own credit adjustments on financial liabilities designated at fair value**

| | For the year ended | | |
|---|---|---|---|
| | Included in Other comprehensive income | Included in Net trading income | |
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| **Recognized during the year:** | | | |
| Realized gain / (loss) | 18 | | |
| Unrealized gain / (loss) | (138) | 553 | 292 |
| Total gain / (loss), before tax | (120) | | |

| | As of | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| **Recognized on the balance sheet as of the end of the year:** | | | |
| Unrealized life-to-date gain / (loss) | 141 | 287 | (302) |

**Note 22 Fair value measurement (continued)**

### Credit valuation adjustments

In order to measure the fair value of OTC derivative instruments, including funded derivative instruments which are classified as *Financial assets designated at fair value,* credit valuation adjustments (CVA) are necessary to reflect the credit risk of the counterparty inherent in these instruments. This amount represents the estimated fair value of protection required to hedge the counterparty credit risk of such instruments. A CVA is determined for each counterparty, considering all exposures to that counterparty, and is dependent on the expected future value of exposures, default probabilities and recovery rates, applicable collateral or netting arrangements, break clauses and other contractual factors.

### Funding valuation adjustments

Funding valuation adjustments (FVA) reflect the costs and benefits of funding associated with uncollateralized and partially collateralized derivative receivables and payables and are calculated as the valuation effect from moving the discounting of the uncollateralized derivative cash flows from LIBOR to OCA using the CVA framework.

An FVA is also applied to collateralized derivative assets in cases where the collateral cannot be sold or repledged.

### Debit valuation adjustments

A debit valuation adjustment (DVA) is estimated to incorporate own credit in the valuation of derivatives, effectively consistent with the CVA framework. DVA is determined for each counterparty, considering all exposures with that counterparty and taking into account collateral netting agreements, expected future mark-to-market movements and UBS AG's credit default spreads.

### Other valuation adjustments

Instruments that are measured as part of a portfolio of combined long and short positions are valued at mid-market levels to ensure consistent valuation of the long and short component risks. A liquidity valuation adjustment is then made to the overall net long or short exposure to move the fair value to bid or offer as appropriate, reflecting current levels of market liquidity. The bid-offer spreads used in the calculation of this valuation adjustment are obtained from market transactions and other relevant sources and are updated periodically.

Uncertainties associated with the use of model-based valuations are incorporated into the measurement of fair value through the use of model reserves. These reserves reflect the amounts that UBS AG estimates should be deducted from valuations produced directly by models to incorporate uncertainties in the relevant modeling assumptions, in the model and market inputs used, or in the calibration of the model output to adjust for known model deficiencies. In arriving at these estimates, UBS AG considers a range of market practices, including how it believes market participants would assess these uncertainties. Model reserves are reassessed periodically in light of data from market transactions, consensus pricing services and other relevant sources.

**Valuation adjustments on financial instruments**

| | As of | |
|---|---|---|
| *Life-to-date gain / (loss), CHF million* | 31.12.16 | 31.12.15 |
| Credit valuation adjustments[1] | (216) | (309) |
| Funding valuation adjustments | (106) | (160) |
| Debit valuation adjustments | 5 | 47 |
| Other valuation adjustments | (713) | (810) |
| *of which: liquidity* | *(439)* | *(491)* |
| *of which: model uncertainty* | *(274)* | *(319)* |

1 Amounts do not include reserves against defaulted counterparties.

**Note 22 Fair value measurement (continued)**

## e) Transfers between Level 1 and Level 2

The amounts provided below reflect transfers between Level 1 and Level 2 for instruments that were held for the entire reporting period.

Assets totaling approximately CHF 0.2 billion, which were mainly comprised of financial assets held for trading, and liabilities totaling approximately CHF 0.1 billion, which were primarily comprised of financial liabilities held for trading, were transferred from Level 2 to Level 1 during 2016, generally due to increased levels of trading activity observed within the market.

Assets totaling approximately CHF 0.4 billion, which were mainly comprised of financial assets available for sale, largely corporate and municipal bonds, and financial assets held for trading, predominantly equity instruments and corporate and municipal bonds, were transferred from Level 1 to Level 2 during 2016, generally due to diminished levels of trading activity observed within the market. Transfers of financial liabilities from Level 1 to Level 2 during 2016 were not significant.

## f) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities together with the valuation techniques used to measure fair value, the significant inputs used in the valuation technique that are considered unobservable and a range of values for those unobservable inputs.

The range of values represents the highest and lowest level input used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input, but rather the different underlying characteristics of the relevant assets and liabilities. The ranges will therefore vary from period to period and parameter to parameter based on characteristics of the instruments held at each balance sheet date. Further, the ranges of unobservable inputs may differ across other financial institutions due to the diversity of the products in each firm's inventory.

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 31.12.16 | | | 31.12.15 | | | |
| CHF billion | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Financial assets held for trading / Trading portfolio liabilities, Financial assets / liabilities designated at fair value and Financial assets available for sale** | | | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.6* | *0.7* | *0.0* | *0.1* | Relative value to market comparable | Bond price equivalent | 0 | 128 | 88 | 0 | 134 | 94 | points |
| *Traded loans, loans designated at fair value, loan commitments and guarantees* | *2.0* | *2.6* | *0.0* | *0.0* | Relative value to market comparable | Loan price equivalent | 39 | 103 | 94 | 65 | 100 | 93 | points |
| | | | | | Discounted expected cash flows | Credit spread | 71 | 554 | | 30 | 252 | | basis points |
| | | | | | Market comparable and securitization model | Discount margin | 0 | 16 | 2 | 1 | 14 | 2 | % |
| *Equity instruments[3]* | *0.4* | *0.6* | *0.1* | *0.0* | Relative value to market comparable | Price | | | | | | | |
| *Structured (reverse) repurchase agreements* | *0.6* | *1.5* | *0.3* | *0.6* | Discounted expected cash flows | Funding spread | 15 | 195 | | 18 | 183 | | basis points |
| *Issued and OTC debt instruments[4]* | | | *10.7* | *10.1* | | | | | | | | | |

## Note 22 Fair value measurement (continued)

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities (continued)**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 31.12.16 | | | 31.12.15 | | | |
| *CHF billion* | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Replacement values** | | | | | | | | | | | | | |
| *Interest rate contracts* | *0.3* | *0.1* | *0.5* | *0.3* | Option model | Volatility of interest rates | 26 | 176 | | 16 | 130 | | % |
| | | | | | | Rate-to-rate correlation | 84 | 94 | | 84 | 94 | | % |
| | | | | | | Intra-curve correlation | 36 | 94 | | 36 | 94 | | % |
| | | | | | Discounted expected cash flows | Constant prepayment rate[5] | | | | 0 | 3 | | % |
| *Credit derivative contracts* | *1.3* | *1.3* | *1.5* | *1.3* | Discounted expected cash flow based on modeled defaults and recoveries | Credit spreads | 0 | 791 | | 1 | 1,163 | | basis points |
| | | | | | | Upfront price points | 1 | 13 | | 8 | 25 | | % |
| | | | | | | Recovery rates | 0 | 50 | | 0 | 95 | | % |
| | | | | | | Credit index correlation | 10 | 85 | | 10 | 85 | | % |
| | | | | | | Discount margin | (1) | 68 | | 1 | 72 | | % |
| | | | | | | Credit pair correlation | 59 | 100 | | 57 | 94 | | % |
| | | | | | Discounted cash flow projection on underlying bond | Constant prepayment rate | 1 | 15 | | 0 | 15 | | % |
| | | | | | | Constant default rate | 1 | 8 | | 0 | 9 | | % |
| | | | | | | Loss severity | 40 | 100 | | 0 | 100 | | % |
| | | | | | | Discount margin | 0 | 11 | | 1 | 15 | | % |
| | | | | | | Bond price equivalent | 3 | 100 | | 0 | 104 | | points |
| *Equity / index contracts* | *0.7* | *1.0* | *1.9* | *1.4* | Option model | Equity dividend yields | 0 | 15 | | 0 | 57 | | % |
| | | | | | | Volatility of equity stocks, equity and other indices | 0 | 150 | | 0 | 143 | | % |
| | | | | | | Equity-to-FX correlation | (45) | 82 | | (44) | 82 | | % |
| | | | | | | Equity-to-equity correlation | 12 | 98 | | 3 | 99 | | % |

1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par. For example, 100 points would be 100% of par. 2 Weighted averages are provided for non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to derivative contracts as this would not be meaningful. 3 The range of inputs is not disclosed due to the dispersion of possible values given the diverse nature of the investments. 4 Valuation techniques, significant unobservable inputs and the respective input ranges for issued debt instruments and OTC debt instruments are the same as the equivalent derivative or structured financing instruments presented elsewhere in this table. 5 The range of inputs is not disclosed as of 31 December 2016 because this unobservable input parameter was not significant to the respective valuation technique as of that date.

## Significant unobservable inputs in Level 3 positions

This section discusses the significant unobservable inputs used in the valuation of Level 3 instruments and assesses the potential effect that a change in each unobservable input in isolation may have on a fair value measurement, including information to facilitate an understanding of factors that give rise to the input ranges shown. Relationships between observable and unobservable inputs have not been included in the summary below.

### Bond price equivalent

Where market prices are not available for a bond, fair value is measured by comparison with observable pricing data from similar instruments. Factors considered when selecting comparable instruments include credit quality, maturity and industry of the issuer. Fair value may be measured either by a direct price comparison or by conversion of an instrument price into a yield (either as an outright yield or as a spread to LIBOR). Bond prices are expressed as points of the nominal, where 100 represents a fair value equal to the nominal value (i.e., par).

For corporate and municipal bonds, the range represents the range of prices from reference issuances used in determining fair value. Bonds priced at 0 are distressed to the point that no recovery is expected, while prices significantly in excess of 100 or par relate to inflation-linked or structured issuances that pay a coupon in excess of the market benchmark as of the measurement date.

For credit derivatives, the bond price range represents the range of prices used for reference instruments that are typically converted to an equivalent yield or credit spread as part of the valuation process.

### Loan price equivalent

Where market prices are not available for a traded loan, fair value is measured by comparison with observable pricing data for similar instruments. Factors considered when selecting comparable instruments include industry segment, collateral quality, maturity and issuer-specific covenants. Fair value may be measured either by a direct price comparison or by conversion of an instrument price into a yield. The range represents the range of prices derived from reference issuances of a similar credit quality used in measuring fair value for loans classified as Level 3. Loans priced at 0 are distressed to the point that no recovery is expected, while a current price of 100 represents a loan that is expected to be repaid in full.

### Credit spread

Valuation models for many credit derivatives require an input for the credit spread, which is a reflection of the credit quality of the associated referenced underlying. The credit spread of a particular security is quoted in relation to the yield on a benchmark security or reference rate, typically either US Treasury or LIBOR, and is generally expressed in terms of basis points. An increase / (decrease) in credit spread will increase / (decrease) the value of credit protection offered by CDS and other credit derivative products. The income statement effect from such changes depends on the nature and direction of the positions held. Credit spreads may be negative where the asset is more creditworthy than the benchmark against which the spread is calculated. A wider credit spread represents decreasing creditworthiness. The ranges represents a diverse set of underlyings, with the lower end of the range representing credits of the highest quality (e.g., approximating the risk of LIBOR) and the upper end of the range representing greater levels of credit risk.

### Discount margin (DM)

The DM spread represents the discount rates used to present value cash flows of an asset to reflect the market return required for uncertainty in the estimated cash flows. DM spreads are a rate or rates applied on top of a floating index (e.g., LIBOR) to discount expected cash flows. Generally, a decrease / (increase) in the unobservable input in isolation would result in a significantly higher / (lower) fair value.

The different ranges represent the different discount rates across loans and credit derivatives. The high end of the range relates to securities that are priced very low within the market relative to the expected cash flow schedule. This indicates that the market is pricing an increased risk of credit loss into the security that is greater than what is being captured by the expected cash flow generation process. The low ends of the ranges are typical of funding rates on better quality instruments.

### Funding spread

Structured financing transactions are valued using synthetic funding curves that best represent the assets that are pledged as collateral for the transactions. They are not representative of where UBS AG can fund itself on an unsecured basis, but provide an estimate of where UBS AG can source and deploy secured funding with counterparties for a given type of collateral. The funding spreads are expressed in terms of basis points over or under LIBOR, and if funding spreads widen, this increases the effect of discounting.

A small proportion of structured debt instruments and non-structured fixed-rate bonds within financial liabilities designated at fair value had an exposure to funding spreads that was longer in duration than the actively traded market.

**Note 22 Fair value measurement (continued)**

### Volatility

Volatility measures the variability of future prices for a particular instrument and is generally expressed as a percentage, where a higher number reflects a more volatile instrument for which future price movements are more likely to occur. The minimum level of volatility is 0% and there is no theoretical maximum. Volatility is a key input into option models, where it is used to derive a probability-based distribution of future prices for the underlying instrument. The effect of volatility on individual positions within the portfolio is driven primarily by whether the option contract is a long or short position. In most cases, the fair value of an option increases as a result of an increase in volatility and is reduced by a decrease in volatility. Generally, volatility used in the measurement of fair value is derived from active market option prices (referred to as implied volatility). A key feature of implied volatility is the volatility "smile" or "skew," which represents the effect of pricing options of different option strikes at different implied volatility levels.

### Correlation

Correlation measures the inter-relationship between the movements of two variables. It is expressed as a percentage between –100% and +100%, where +100% represents perfectly correlated variables (meaning a movement of one variable is associated with a movement of the other variable in the same direction), and –100% implies the variables are inversely correlated (meaning a movement of one variable is associated with a movement of the other variable in the opposite direction). The effect of correlation on the measurement of fair value depends on the specific terms of the instruments being valued, due to the range of different payoff features within such instruments.

Rate-to-rate correlation is the correlation between interest rates of two separate currencies. Intra-curve correlation represents the correlation between different tenor points of the same yield curve. Credit index correlation reflects the implied correlation derived from different indices across different parts of the benchmark index capital structure. The input is particularly important for bespoke index tranches. Credit pair correlation is particularly important for first to default credit structures. Equity-to-FX correlation is important for equity options based on a currency different than the currency of the underlying stock. Equity-to-equity correlation is particularly important for complex options that incorporate, in some manner, different equities in the projected payoff. The closer the correlation is to 100%, the more related one equity is to another. For example, equities with a very high correlation could be from different parts of the same corporate structure.

### Constant prepayment rate

A prepayment rate represents the amount of unscheduled principal repayment for a pool of loans. The prepayment estimate is based on a number of factors, such as historical prepayment rates for repaid and existing loans with similar characteristics and the future economic outlook, considering factors including, but not limited to, future interest rates. In general, a significant increase / (decrease) in this unobservable input in isolation would result in a significantly higher / (lower) fair value for bonds trading at a discount. For bonds trading at a premium the reverse would apply, with a decrease in fair value when the constant prepayment rate increases. However, in certain cases the effect of a change in prepayment speed on instrument price is more complicated and depends on both the precise terms of the securitization and the position of the instrument within the securitization capital structure.

The range represents the input assumption for credit derivatives on asset-backed securities. Securities with an input of 0% typically reflect no current prepayment behavior with respect to the underlying collateral, and with no expectation of this changing in the immediate future, while the high range relates to securities that are currently experiencing high prepayments. Different classes of asset-backed securities typically show different ranges of prepayment characteristics depending on a combination of factors, including the borrowers' ability to refinance, prevailing refinancing rates, and the quality or characteristics of the underlying loan collateral pools.

### Upfront price points

These are a component in the price quotation of credit derivative contracts, whereby the overall fair value price level is split between the credit spread and a component that is quoted and settled upfront on transacting a new contract. This latter component is referred to as upfront price points and represents the difference between the credit spread paid as protection premium on a current contract versus a small number of standard contracts defined by the market. Distressed credit names frequently trade and quote CDS protection only in upfront points rather than as a running credit spread. An increase / (decrease) in upfront points will increase / (decrease) the value of credit protection offered by CDS and other credit derivative products. The effect of increases or decreases in upfront price points depends on the nature and direction of the positions held. Upfront price points may be negative where a contract is quoting for a narrower premium than the market standard, but are generally positive, reflecting an increase in credit premium required by the market as creditworthiness deteriorates.

### Loss severity / recovery rate

The projected loss severity / recovery rate reflects the estimated loss that will be realized given expected defaults. Loss severity is generally applied to collateral within asset-backed securities while the recovery rate is the analogous pricing input for corporate or sovereign credits. Recovery is the reverse of loss severity, so a 100% recovery rate is the equivalent of a 0% loss severity. Increases in loss severity levels / decreases in recovery rates will result in lower expected cash flows into the structure upon the default of the instruments. In general, a significant decrease / (increase) in the loss severity in isolation would result in significantly higher / (lower) fair value for the respective asset-backed securities. The effect of a change in recovery rate on a credit derivative position will depend on whether credit protection has been bought or sold.

Loss severity is ultimately driven by the value recoverable from collateral held after foreclosure occurs relative to the loan principal and possibly unpaid interest accrued at that point. For credit derivatives, the loss severity range applies to derivatives on asset-backed securities. The recovery rate range represents the range of expected recovery levels on credit derivative contracts within the Level 3 portfolio.

The volatility of interest rates reflects the range of unobservable volatilities across different currencies and related underlying interest rate levels. Volatilities of low interest rates tend to be much higher than volatilities of high interest rates. In addition, different currencies may have significantly different implied volatilities. The volatility of equity stocks, equity and other indices reflects the range of underlying stock volatilities.

### Constant default rate (CDR)

The CDR represents the percentage of outstanding principal balances in the pool that are projected to default and liquidate and is the annualized rate of default for a group of mortgages or loans. The CDR estimate is based on a number of factors, such as collateral delinquency rates in the pool and the future economic outlook. In general, a significant increase / (decrease) in this unobservable input in isolation would result in significantly lower / (higher) cash flows for the deal (and thus lower / (higher) valuations). However, different instruments within the capital structure can react differently to changes in the CDR. Generally, subordinated bonds will decrease in value as CDR increases, but for well protected senior bonds an increase in CDR may cause an increase in price. In addition, the presence of a guarantor wrap on the collateral pool of a security may result in notes at the junior end of the capital structure experiencing a price increase with an increase in the default rate.

The range represents the expected default percentage across the individual instruments' underlying collateral pools.

### Equity dividend yields

The derivation of a forward price for an individual stock or index is important for measuring fair value for forward or swap contracts and for measuring fair value using option pricing models. The relationship between the current stock price and the forward price is based on a combination of expected future dividend levels and payment timings, and, to a lesser extent, the relevant funding rates applicable to the stock in question. Dividend yields are generally expressed as an annualized percentage of the share price with the lowest limit of 0% representing a stock that is not expected to pay any dividend. The dividend yield and timing represents the most significant parameter in determining fair value for instruments that are sensitive to an equity forward price.

**Note 22 Fair value measurement (continued)**

## g) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible alternative assumptions would change fair value significantly, and the estimated effect thereof.

The table shown presents the favorable and unfavorable effects for each class of financial assets and liabilities for which the potential change in fair value is considered significant. The sensitivity data presented represent an estimation of valuation uncertainty based on reasonably possible alternative values for Level 3 inputs at the balance sheet date and do not represent the estimated effect of stress scenarios. Typically, these financial assets and liabilities are sensitive to a combination of inputs from Levels 1–3. Although well-defined interdependencies may exist between Levels 1–2 and Level 3 parameters (e.g., between interest rates, which are generally Level 1 or Level 2, and prepayments, which are generally Level 3), these have not been incorporated in the table. Further, direct inter-relationships between the Level 3 parameters discussed below are not a significant element of the valuation uncertainty.

Sensitivity data are estimated using a number of techniques, including the estimation of price dispersion among different market participants, variation in modeling approaches and reasonably possible changes to assumptions used within the fair value measurement process. The sensitivity ranges are not always symmetrical around the fair values as the inputs used in valuations are not always precisely in the middle of the favorable and unfavorable range.

Sensitivity data are determined at a product or parameter level and then aggregated assuming no diversification benefit. The calculated sensitivity is applied to both the outright position and any related Level 3 hedge. The main interdependencies across different Level 3 products to a single unobservable input parameter have been included in the basis of netting exposures within the calculation. Aggregation without allowing for diversification involves the simple summation of individual results with the total sensitivity, therefore representing the effect of all unobservable inputs which, if moved to a reasonably possible favorable or unfavorable level at the same time, would result in a significant change in the valuation. Diversification would incorporate estimated correlations across different sensitivity results and, as such, would result in an overall sensitivity that would be less than the sum of the individual component sensitivities. UBS AG believes that, while there are diversification benefits within the portfolios representing these sensitivity numbers, they are not significant to this analysis.

**Sensitivity of fair value measurements to changes in unobservable input assumptions**

| | 31.12.16 | | 31.12.15 | |
|---|---|---|---|---|
| *CHF million* | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] |
| Corporate and municipal bonds | 34 | (39) | 24 | (25) |
| Traded loans, loans designated at fair value, loan commitments and guarantees | 82 | (10) | 88 | (28) |
| Equity instruments | 67 | (47) | 166 | (74) |
| Interest rate derivative contracts, net | 41 | (42) | 107 | (67) |
| Credit derivative contracts, net | 131 | (183) | 174 | (196) |
| Foreign exchange derivative contracts, net | 17 | (8) | 33 | (28) |
| Equity / index derivative contracts, net | 63 | (63) | 61 | (57) |
| Issued debt instruments | 96 | (93) | 136 | (146) |
| Other | 29 | (31) | 20 | (20) |
| **Total** | 560 | (517) | 809 | (640) |

1 Of the total favorable changes, CHF 75 million as of 31 December 2016 (31 December 2015: CHF 164 million) related to financial assets available for sale. Of the total unfavorable changes, CHF 55 million as of 31 December 2016 (31 December 2015: CHF 71 million) related to financial assets available for sale.

## Note 22 Fair value measurement (continued)

### h) Level 3 instruments: movements during the period

Significant changes in Level 3 instruments

The table on the following pages presents additional information about Level 3 assets and liabilities measured at fair value on a recurring basis. Level 3 assets and liabilities may be hedged with instruments classified as Level 1 or Level 2 in the fair value hierarchy and, as a result, realized and unrealized gains and losses included in the table may not include the effect of related hedging activity. Furthermore, the realized and unrealized gains and losses presented within the table are not limited solely to those arising from Level 3 inputs, as valuations are generally derived from both observable and unobservable parameters.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Assets transferred into and out of Level 3 totaled CHF 3.5 billion and CHF 0.8 billion, respectively. Transfers into Level 3 were primarily comprised of traded loans and interest rate contracts, due to decreased observability of the respective credit spread and rates volatility inputs. Transfers out of Level 3 were primarily comprised of traded loans and equity / index contracts, reflecting increased observability of the respective credit spread and equity volatility inputs.

Liabilities transferred into and out of Level 3 totaled CHF 2.2 billion and CHF 3.5 billion, respectively. Transfers into Level 3 were primarily comprised of equity-linked issued debt instruments and interest rate contracts, due to decreased observability of the respective equity and rates volatility inputs used to determine the fair value of the options embedded in these structures. Transfers out of Level 3 were primarily comprised of equity-linked issued debt instruments and fixed-rate issued debt instruments resulting from changes in the availability of the observable equity and rates volatility inputs used to determine the fair value of the options embedded in these structures.

## Note 22 Fair value measurement (continued)

**Movements of Level 3 instruments**

| | | Total gains / losses included in comprehensive income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF billion* | **Balance as of 31 December 2014** | Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Other comprehensive income | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation |
| **Financial assets held for trading** | **3.5** | **(0.2)** | ***(0.4)*** | | **0.7** | **(7.6)** | **5.4** | **0.0** | **0.9** | **(0.5)** | **(0.1)** |
| *of which:* | | | | | | | | | | | |
| *Corporate and municipal bonds* | *1.4* | *0.0* | *0.0* | | *0.5* | *(1.0)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *(0.1)* |
| *Loans* | *1.1* | *(0.1)* | *(0.3)* | | *0.1* | *(5.5)* | *5.4* | *0.0* | *0.2* | *(0.3)* | *0.0* |
| *Asset-backed securities* | *0.6* | *0.0* | *0.0* | | *0.1* | *(0.6)* | *0.0* | *0.0* | *0.2* | *(0.1)* | *0.0* |
| *Other* | *0.5* | *(0.1)* | *(0.1)* | | *0.1* | *(0.5)* | *0.0* | *0.0* | *0.4* | *0.0* | *0.0* |
| **Financial assets designated at fair value** | **3.5** | **0.0** | ***0.0*** | | **0.0** | **0.0** | **0.8** | **(1.3)** | **0.8** | **(0.4)** | **(0.1)** |
| *of which:* | | | | | | | | | | | |
| *Loans (including structured loans)* | *1.0* | *(0.1)* | *(0.1)* | | *0.0* | *0.0* | *0.7* | *(0.2)* | *0.8* | *(0.4)* | *0.0* |
| *Structured reverse repurchase and securities borrowing agreements* | *2.4* | *0.1* | *0.1* | | *0.0* | *0.0* | *0.1* | *(1.0)* | *0.0* | *0.0* | *(0.1)* |
| *Other* | *0.1* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* |
| **Financial assets available for sale** | **0.6** | **0.0** | ***0.0*** | **0.0** | **0.1** | **(0.1)** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| **Positive replacement values** | **4.4** | **(0.4)** | ***(0.1)*** | | **0.0** | **(0.1)** | **1.7** | **(2.9)** | **0.7** | **(0.5)** | **(0.1)** |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.7* | *(0.1)* | *0.2* | | *0.0* | *0.0* | *0.9* | *(1.1)* | *0.1* | *(0.1)* | *(0.1)* |
| *Foreign exchange contracts* | *0.6* | *(0.1)* | *0.0* | | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.0* | *0.0* | *0.0* |
| *Equity / index contracts* | *1.9* | *0.0* | *(0.3)* | | *0.0* | *(0.1)* | *0.7* | *(1.4)* | *0.2* | *(0.3)* | *0.0* |
| *Other* | *0.3* | *(0.1)* | *(0.1)* | | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.4* | *(0.1)* | *0.0* |
| **Negative replacement values** | **5.0** | **(0.4)** | ***0.0*** | | **0.0** | **0.0** | **1.0** | **(2.2)** | **0.5** | **(0.5)** | **(0.1)** |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.7* | *0.3* | *0.6* | | *0.0* | *0.0* | *0.0* | *(0.9)* | *0.3* | *(0.1)* | *0.0* |
| *Foreign exchange contracts* | *0.3* | *0.0* | *(0.1)* | | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* |
| *Equity / index contracts* | *2.4* | *(0.4)* | *(0.5)* | | *0.0* | *0.0* | *0.9* | *(1.2)* | *0.1* | *(0.4)* | *(0.1)* |
| *Other* | *0.6* | *(0.2)* | *(0.1)* | | *0.0* | *0.0* | *0.1* | *0.0* | *0.1* | *0.0* | *(0.1)* |
| **Financial liabilities designated at fair value** | **11.9** | **0.6** | ***0.0*** | | **0.0** | **0.0** | **6.1** | **(6.7)** | **1.3** | **(2.2)** | **(0.3)** |
| *of which:* | | | | | | | | | | | |
| *Issued debt instruments* | *9.5* | *0.4* | *0.1* | | *0.0* | *0.0* | *4.9* | *(4.4)* | *1.3* | *(2.2)* | *(0.2)* |
| *Over-the-counter debt instruments* | *1.5* | *0.2* | *(0.1)* | | *0.0* | *0.0* | *1.2* | *(2.0)* | *0.0* | *0.0* | *(0.1)* |
| *Structured repurchase agreements* | *0.9* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.0* | *0.0* | *0.0* |

1 Total Level 3 assets as of 31 December 2016 were CHF 6.9 billion (31 December 2015: CHF 9.0 billion). Total Level 3 liabilities as of 31 December 2016 were CHF 15.1 billion (31 December 2015: CHF 14.1 billion).

| Balance as of 31 December 2015 | Total gains / losses included in comprehensive income: Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Other comprehensive income | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | Balance as of 31 December 2016[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.1 | 0.1 | *0.0* | | 0.9 | (6.8) | 4.1 | 0.0 | 1.7 | (0.3) | (0.1) | 1.7 |
| *0.7* | *0.2* | *0.1* | | *0.6* | *(0.8)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *(0.1)* | *0.6* |
| *0.8* | *(0.1)* | *(0.1)* | | *0.1* | *(5.2)* | *4.1* | *0.0* | *1.1* | *(0.2)* | *0.0* | *0.7* |
| *0.2* | *0.0* | *0.0* | | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.2* | *0.0* | *0.0* | *0.2* |
| *0.4* | *0.0* | *0.0* | | *0.2* | *(0.7)* | *0.0* | *0.0* | *0.4* | *0.0* | *0.0* | *0.2* |
| 3.3 | (0.4) | *(0.1)* | | 0.1 | 0.0 | 0.7 | (1.9) | 0.5 | (0.1) | 0.0 | 2.1 |
| *1.7* | *(0.4)* | *(0.1)* | | *0.0* | *0.0* | *0.6* | *(1.0)* | *0.4* | *(0.1)* | *0.0* | *1.2* |
| *1.5* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.0* | *(0.9)* | *0.0* | *0.0* | *0.0* | *0.6* |
| *0.1* | *0.0* | *0.0* | | *0.1* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* |
| 0.7 | 0.0 | *0.0* | 0.0 | 0.1 | (0.1) | 0.0 | 0.0 | 0.0 | (0.1) | 0.0 | 0.5 |
| 2.9 | (0.4) | *(0.5)* | | 0.0 | 0.0 | 1.0 | (1.9) | 1.3 | (0.4) | 0.0 | 2.5 |
| *1.3* | *(0.2)* | *(0.1)* | | *0.0* | *0.0* | *0.6* | *(0.7)* | *0.4* | *(0.1)* | *0.0* | *1.3* |
| *0.5* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.1* | *(0.2)* | *0.0* | *(0.1)* | *0.0* | *0.2* |
| *1.0* | *(0.1)* | *0.0* | | *0.0* | *0.0* | *0.4* | *(0.6)* | *0.2* | *(0.2)* | *0.0* | *0.7* |
| *0.1* | *(0.1)* | *(0.2)* | | *0.0* | *0.0* | *0.0* | *(0.4)* | *0.7* | *0.0* | *0.0* | *0.3* |
| 3.3 | 0.6 | *0.5* | | 0.0 | 0.0 | 1.5 | (2.1) | 1.2 | (0.6) | 0.0 | 4.0 |
| *1.3* | *0.5* | *0.6* | | *0.0* | *0.0* | *0.2* | *(0.7)* | *0.3* | *(0.1)* | *0.0* | *1.5* |
| *0.2* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.1* | *0.0* | *0.0* | *0.1* |
| *1.4* | *0.3* | *0.1* | | *0.0* | *0.0* | *1.0* | *(0.8)* | *0.2* | *(0.3)* | *0.0* | *1.9* |
| *0.3* | *(0.2)* | *(0.1)* | | *0.0* | *0.0* | *0.2* | *(0.4)* | *0.7* | *(0.1)* | *0.0* | *0.5* |
| 10.7 | 1.0 | *0.6* | | 0.0 | 0.0 | 5.0 | (3.5) | 0.9 | (2.9) | (0.1) | 11.0 |
| *9.3* | *0.9* | *0.6* | | *0.0* | *0.0* | *4.1* | *(2.5)* | *0.8* | *(2.9)* | *(0.1)* | *9.7* |
| *0.8* | *0.1* | *0.0* | | *0.0* | *0.0* | *0.8* | *(0.6)* | *0.1* | *0.0* | *0.0* | *1.1* |
| *0.6* | *0.0* | *0.0* | | *0.0* | *0.0* | *0.1* | *(0.4)* | *0.0* | *0.0* | *0.0* | *0.3* |

## Note 22 Fair value measurement (continued)

### i) Financial instruments not measured at fair value

The table below provides the estimated fair values of financial instruments not measured at fair value.

**Financial instruments not measured at fair value**

| | 31.12.16 | | | | | 31.12.15 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Carrying value | Fair value | | | | Carrying value | Fair value | | | |
| *CHF billion* | Total | Total | Level 1 | Level 2 | Level 3 | Total | Total | Level 1 | Level 2 | Level 3 |
| **Assets** | | | | | | | | | | |
| Cash and balances with central banks | 107.8 | 107.8 | 107.8 | 0.0 | 0.0 | 91.3 | 91.3 | 91.3 | 0.0 | 0.0 |
| Due from banks | 13.1 | 13.1 | 12.5 | 0.7 | 0.0 | 11.9 | 11.9 | 11.4 | 0.5 | 0.0 |
| Cash collateral on securities borrowed | 15.1 | 15.1 | 0.0 | 15.1 | 0.0 | 25.6 | 25.6 | 0.0 | 25.6 | 0.0 |
| Reverse repurchase agreements | 66.2 | 66.2 | 0.0 | 62.5 | 3.7 | 67.9 | 67.9 | 0.0 | 65.8 | 2.1 |
| Cash collateral receivables on derivative instruments | 26.7 | 26.7 | 0.0 | 26.7 | 0.0 | 23.8 | 23.8 | 0.0 | 23.8 | 0.0 |
| Loans | 307.0 | 310.4 | 0.0 | 170.0 | 140.4 | 312.7 | 314.9 | 0.0 | 170.9 | 143.9 |
| Financial assets held to maturity | 9.3 | 9.1 | 6.3 | 2.8 | 0.0 | | | | | |
| Other assets | 18.5 | 18.5 | 0.0 | 18.5 | 0.0 | 20.1 | 20.1 | 0.0 | 20.1 | 0.0 |
| **Liabilities** | | | | | | | | | | |
| Due to banks | 10.6 | 10.6 | 8.8 | 1.9 | 0.0 | 11.8 | 11.8 | 10.4 | 1.4 | 0.0 |
| Cash collateral on securities lent | 2.8 | 2.8 | 0.0 | 2.8 | 0.0 | 8.0 | 8.0 | 0.0 | 8.0 | 0.0 |
| Repurchase agreements | 6.6 | 6.6 | 0.0 | 6.6 | 0.0 | 9.7 | 9.7 | 0.0 | 9.6 | 0.0 |
| Cash collateral payables on derivative instruments | 35.5 | 35.5 | 0.0 | 35.5 | 0.0 | 38.3 | 38.3 | 0.0 | 38.3 | 0.0 |
| Due to customers | 450.2 | 450.6 | 0.0 | 450.6 | 0.0 | 402.5 | 402.8 | 0.0 | 402.8 | 0.0 |
| Debt issued | 79.0 | 81.1 | 0.0 | 78.5 | 2.6 | 82.2 | 84.4 | 0.0 | 78.4 | 6.0 |
| Other liabilities | 39.0 | 39.0 | 0.0 | 39.0 | 0.0 | 52.1 | 52.1 | 0.0 | 52.1 | 0.0 |

The fair values included in the table above were calculated for disclosure purposes only. The valuation techniques and assumptions described below relate only to the fair value of UBS AG's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimation, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another. The following principles were applied when determining fair value estimates for financial instruments not measured at fair value:

- For financial instruments with remaining maturities greater than three months, the fair value was determined from quoted market prices, if available.
- Where quoted market prices were not available, the fair values were estimated by discounting contractual cash flows using current market interest rates or appropriate yield curves for instruments with similar credit risk and maturity. These estimates generally include adjustments for counterparty credit risk or UBS AG's own credit.
- For short-term financial instruments with remaining maturities of three months or less, the carrying amount, which is net of credit loss allowances, is generally considered a reasonable estimate of fair value. The following financial instruments not measured at fair value had remaining maturities of three months or less as of 31 December 2016: 100% of cash and balances with central banks, 95% of amounts due from banks, 100% of cash collateral on securities borrowed, 83% of reverse repurchase agreements, 100% of cash collateral receivables on derivative instruments, 51% of loans, 4% of financial assets held to maturity, 82% of amounts due to banks, 100% of cash collateral on securities lent, 87% of repurchase agreements, 100% of cash collateral payables on derivative instruments, 99% of amounts due to customers and 15% of debt issued.
- The fair value estimates for repurchase and reverse repurchase agreements with variable and fixed interest rates, for all maturities, include the valuation of the interest rate component of these instruments. Credit and debit valuation adjustments have not been included in the valuation due to the short-term nature of these instruments.

## Note 23 Restricted and transferred financial assets

This Note provides information on restricted financial assets (Note 23a), transfers of financial assets (Note 23b and 23c) and financial assets that are received as collateral with the right to resell or repledge these assets (Note 23d).

### a) Restricted financial assets

Restricted financial assets consist of assets pledged as collateral against an existing liability or contingent liability and other assets that are otherwise explicitly restricted such that they cannot be used to secure funding.

Financial assets are mainly pledged as collateral in securities lending transactions, in repurchase transactions, against loans from Swiss mortgage institutions and in connection with the issuance of covered bonds. UBS AG generally enters into repurchase and securities lending arrangements under standard market agreements, with a market-based haircut applied to the collateral, which results in the associated liabilities having a carrying value below the carrying value of the assets. Pledged mortgage loans serve as collateral for existing liabilities against Swiss central mortgage institutions and for existing covered bond issuances of CHF 14,137 million as of 31 December 2016 (31 December 2015: CHF 16,727 million).

Other restricted financial assets include assets protected under client asset segregation rules, assets held by UBS AG's insurance entities to back related liabilities to the policy holders, assets held in certain jurisdictions to comply with explicit minimum local asset maintenance requirements and assets held in consolidated bankruptcy remote entities such as certain investment funds and other structured entities. The carrying value of the liabilities associated with these other restricted financial assets is generally equal to the carrying value of the assets, with the exception of assets held to comply with local asset maintenance requirements for which the associated liabilities are greater.

UBS AG and its subsidiaries are generally not subject to significant restrictions that would prevent the transfer of dividends and capital within UBS AG. However, certain regulated subsidiaries are required to maintain capital and / or liquidity to comply with local regulations and may be subject to prudential limitations by regulators that limit the amount of funds that they can distribute or otherwise transfer. Non-regulated subsidiaries are generally not subject to such requirements and transfer restrictions. However, restrictions can also be the result of different legal, regulatory, contractual, entity or country-specific arrangements and / or requirements.

**Restricted financial assets**

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| **Financial assets pledged as collateral** | | |
| Trading portfolio assets | 36,549 | 57,024 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *30,260* | *51,943* |
| Loans[1] | 19,887 | 24,980 |
| Financial assets designated at fair value | 776 | 0 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *636* | *0* |
| Financial assets available for sale | 0 | 632 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *0* | *6* |
| **Total financial assets pledged as collateral[2]** | 57,213 | 82,636 |
| | | |
| **Other restricted financial assets** | | |
| Due from banks | 2,625 | 3,285 |
| Reverse repurchase agreements | 658 | 1,099 |
| Trading portfolio assets | 12,129 | 24,388 |
| Cash collateral receivables on derivative instruments | 4,329 | 7,104 |
| Loans | 958 | 0 |
| Financial assets available for sale | 247 | 502 |
| Other | 5,195 | 480 |
| **Total other restricted financial assets** | 26,141 | 36,858 |
| **Total financial assets pledged and other restricted financial assets** | 83,354 | 119,494 |

1 All related to mortgage loans that serve as collateral for existing liabilities against Swiss central mortgage institutions and for existing covered bond issuances. Of these pledged mortgage loans, approximately CHF 1.9 billion for 31 December 2016 (31 December 2015: approximately CHF 4.4 billion) could be withdrawn or used for future liabilities or covered bond issuances without breaching existing collateral requirements.
2 Does not include assets placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes (31 December 2016: CHF 4.7 billion; 31 December 2015: CHF 4.9 billion).

**Note 23 Restricted and transferred financial assets (continued)**

## b) Transferred financial assets that are not derecognized in their entirety

The table below presents information for financial assets that have been transferred but are subject to continued recognition in full as well as recognized liabilities associated with those transferred assets.

**Transferred financial assets subject to continued recognition in full**

| *CHF million* | 31.12.16 | | 31.12.15 | |
|---|---|---|---|---|
| | Carrying value of transferred assets | Carrying value of associated liabilities recognized on-balance sheet | Carrying value of transferred assets | Carrying value of associated liabilities recognized on-balance sheet |
| Trading portfolio assets which may be sold or repledged by counterparties | 30,260 | 11,260 | 51,943 | 13,146 |
| *relating to securities lending and repurchase agreements in exchange for cash received* | *11,410* | *11,260* | *13,406* | *13,146* |
| *relating to securities lending agreements in exchange for securities received* | *17,341* | *0* | *37,097* | *0* |
| *relating to other financial asset transfers* | *1,509* | *0* | *1,440* | *0* |
| Financial assets designated at fair value which may be sold or repledged by counterparties | 636 | 630 | 0 | 0 |
| Financial assets available for sale which may be sold or repledged by counterparties | 0 | 0 | 6 | 6 |
| **Total financial assets transferred** | **30,896** | **11,890** | **51,950** | **13,152** |

Transactions in which financial assets are transferred, but continue to be recognized in their entirety on UBS AG's balance sheet include securities lending and repurchase agreements as well as other financial asset transfers. Repurchase and securities lending arrangements are, for the most part, conducted under standard market agreements and are undertaken with counterparties subject to UBS AG's normal credit risk control processes.

→ **Refer to Note 1a item 3e for more information on repurchase agreements and securities lending agreements**

As of 31 December 2016, approximately one-third of the transferred financial assets were trading portfolio assets transferred in exchange for cash, in which case the associated recognized liability represents the amount to be repaid to counterparties. For securities lending and repurchase agreements, a haircut between 0% and 15% is generally applied to the transferred assets, which results in associated liabilities having a carrying value below the carrying value of the transferred assets. The counterparties to the associated liabilities presented in the table above have full recourse to UBS AG.

In securities lending arrangements entered into in exchange for the receipt of other securities as collateral, neither the securities received nor the obligation to return them are recognized on UBS AG's balance sheet, as the risks and rewards of ownership are not transferred to UBS AG. In cases where such financial assets received are subsequently sold or repledged in another transaction, this is not considered to be a transfer of financial assets.

Other financial asset transfers primarily include securities transferred to collateralize derivative transactions, for which the carrying value of associated liabilities is not provided in the table above because those replacement values are managed on a portfolio basis across counterparties and product types, and therefore there is no direct relationship between the specific collateral pledged and the associated liability.

Transferred financial assets that are not subject to derecognition in full, but which remain on the balance sheet to the extent of UBS AG's continuing involvement, were not material as of 31 December 2016 and as of 31 December 2015.

**Note 23 Restricted and transferred financial assets (continued)**

## c) Transferred financial assets that are derecognized in their entirety with continuing involvement

Continuing involvement in a transferred and fully derecognized financial asset may result from contractual provisions in the transfer agreement or from a separate agreement with the counterparty or a third party entered into in connection with the transfer.

### Purchased and retained interests in securitization vehicles

In cases where UBS AG has transferred assets into a securitization vehicle and retained or purchased interests therein, UBS AG has a continuing involvement in those transferred assets.

As of 31 December 2016, the majority of the retained continuing involvement related to securitization positions held in the trading portfolio, primarily collateralized debt obligations, US commercial mortgage-backed securities and residential mortgage-backed securities. The fair value and carrying amount of UBS AG's continuing involvement related to these purchased and retained interests was CHF 5 million as of 31 December 2016, and UBS AG recognized gains of CHF 11 million in 2016 related to these positions. As of 31 December 2016, life-to-date losses of CHF 1,173 million have been recorded related to the positions held as of 31 December 2016.

As of 31 December 2015, the fair value and carrying amount of UBS AG's continuing involvement related to purchased and retained interests in securitization vehicles was CHF 15 million, and UBS AG recognized gains of CHF 16 million in 2015 related to these positions. As of 31 December 2015, life-to-date losses of CHF 1,566 million were recorded related to the positions held as of 31 December 2015.

The maximum exposure to loss related to purchased and retained interests in securitization structures was CHF 28 million as of 31 December 2016 compared with CHF 55 million as of 31 December 2015.

Undiscounted cash outflows of CHF 23 million may be payable to the transferee in future periods as a consequence of holding the purchased and retained interests. The earliest period in which payment may be required is less than one month.

## d) Off-balance sheet assets received

The table below presents assets received from third parties that can be sold or repledged, that are not recognized on the balance sheet, but that are held as collateral, including amounts that have been sold or repledged.

**Off-balance sheet assets received**

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Fair value of assets received which can be sold or repledged | 429,327 | 401,511 |
| *received as collateral under reverse repurchase, securities borrowing and lending arrangements, derivative transactions and other transactions[1]* | *423,524* | *393,839* |
| *received in unsecured borrowings* | *5,803* | *7,672* |
| Thereof sold or repledged[2] | 316,324 | 286,757 |
| *in connection with financing activities* | *277,341* | *241,992* |
| *to satisfy commitments under short sale transactions* | *22,825* | *29,137* |
| *in connection with derivative and other transactions[1]* | *16,158* | *15,628* |

1 Includes securities received as initial margin from its clients that UBS AG is required to remit to CCPs, brokers and deposit banks through its exchange-traded derivative (ETD) clearing and execution services. 2 Does not include off-balance sheet securities (31 December 2016: CHF 30.9 billion; 31 December 2015: CHF 47.3 billion) placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes for which there are no associated liabilities or contingent liabilities.

## Note 24 Offsetting financial assets and financial liabilities

UBS AG enters into netting agreements with counterparties to manage the credit risks associated primarily with repurchase and reverse repurchase transactions, securities borrowing and lending, and over-the-counter (OTC) and exchange-traded derivatives (ETD). These netting agreements and similar arrangements generally enable the counterparties to set off liabilities against available assets received in the ordinary course of business and / or in the event that the counterparty to the transaction is unable to fulfill its contractual obligations. The right of setoff is a legal right to settle or otherwise eliminate all or a portion of an amount due by applying an amount receivable from the same counterparty against it, thus reducing credit exposure.

The table below provides a summary of financial assets subject to offsetting, enforceable master netting arrangements and similar agreements, as well as financial collateral received to mitigate credit exposures for these financial assets. The gross financial assets of UBS AG that are subject to offsetting, enforceable netting arrangements and similar agreements are reconciled to the net amounts presented within the associated balance sheet line, after giving effect to financial liabilities with the same counterparties that have been offset on the balance sheet and other financial assets not subject to an enforceable netting arrangement or similar agreement. Further, related amounts for financial liabilities and collateral received that are not offset on the balance sheet are shown to arrive at financial assets after consideration of netting potential.

UBS AG engages in a variety of counterparty credit mitigation strategies in addition to netting and collateral arrangements. Therefore, the net amounts presented in the tables on this and on the next page do not purport to represent UBS AG's actual credit exposure.

**Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements**

| | Assets subject to netting arrangements | | | | | | Assets not subject to netting arrangements[5] | Total assets | |
|---|---|---|---|---|---|---|---|---|---|
| | Netting recognized on the balance sheet | | | Netting potential not recognized on the balance sheet[4] | | | | | |
| *As of 31.12.16, CHF billion* | Gross assets before netting | Netting with gross liabilities[3] | Net assets recognized on the balance sheet | Financial liabilities | Collateral received | Assets after consideration of netting potential | Assets recognized on the balance sheet | Total assets after consideration of netting potential | Total assets recognized on the balance sheet |
| Cash collateral on securities borrowed | 4.2 | 0.0 | 4.2 | (0.9) | (3.3) | 0.0 | 10.9 | 10.9 | 15.1 |
| Reverse repurchase agreements | 128.4 | (71.5) | 56.9 | (2.1) | (54.8) | 0.0 | 9.3 | 9.3 | 66.2 |
| Positive replacement values | 152.3 | (2.5) | 149.8 | (113.1) | (26.7) | 10.0 | 8.6 | 18.6 | 158.4 |
| Cash collateral receivables on derivative instruments[1] | 37.2 | (15.1) | 22.1 | (14.2) | (1.0) | 7.0 | 4.5 | 11.5 | 26.7 |
| Financial assets designated at fair value | 1.7 | 0.0 | 1.7 | 0.0 | (0.6) | 1.1 | 63.3 | 64.4 | 65.0 |
| **Total assets** | 323.8 | (89.1) | 234.7 | (130.3) | (86.3) | 18.1 | 96.7 | 114.8 | 331.5 |
| | | | | | | | | | |
| *As of 31.12.15, CHF billion* | | | | | | | | | |
| Cash collateral on securities borrowed[2] | 8.2 | 0.0 | 8.2 | (3.1) | (5.2) | 0.0 | 17.3 | 17.3 | 25.6 |
| Reverse repurchase agreements | 117.9 | (62.1) | 55.8 | (4.4) | (51.4) | 0.0 | 12.1 | 12.1 | 67.9 |
| Positive replacement values | 161.9 | (2.5) | 159.3 | (123.0) | (25.5) | 10.8 | 8.1 | 18.9 | 167.4 |
| Cash collateral receivables on derivative instruments[1] | 85.9 | (66.3) | 19.6 | (10.9) | (1.5) | 7.2 | 4.1 | 11.3 | 23.8 |
| Financial assets designated at fair value | 2.4 | 0.0 | 2.4 | 0.0 | (1.8) | 0.6 | 3.4 | 4.0 | 5.8 |
| **Total assets** | **376.4** | **(131.0)** | **245.4** | **(141.3)** | **(85.4)** | **18.7** | **45.0** | **63.7** | **290.5** |

1 The net amount of Cash collateral receivables on derivative instruments recognized on the balance sheet includes certain OTC derivatives that are net settled on a daily basis either legally or in substance under IAS 32 principles and ETD that are economically settled on a daily basis. In 2016 UBS AG elected to convert its IRS transacted with the London Clearing House and Japan Securities Clearing Corporation from the previous collateral model to a settlement model. As a result, gross assets and liabilities and corresponding netting decreased by CHF 64 billion as of 31 December 2016, with no change to net assets and liabilities recognized on the balance sheet. Refer to Note 1b for more information. 2 In 2016, balances as of 31 December 2015 were revised to conform to the presentation for balances as of 31 December 2016. This resulted in a CHF 16 billion decrease in Assets subject to netting arrangements with a corresponding increase in Assets not subject to netting arrangements. This change did not impact amounts recognized on the balance sheet since IAS 32 netting was not applied under either presentation as the relevant netting criteria were not met. Furthermore, the level of collateralization for these assets did not change as result of this presentational change. 3 The logic of the table results in amounts presented in the "Netting with gross liabilities" column corresponding directly to the amounts presented in the "Netting with gross assets" column in the liabilities table presented on the following page. 4 For the purpose of this disclosure, the amounts of financial instruments and cash collateral presented have been capped by the relevant netting agreement so as not to exceed the net amount of financial assets presented on the balance sheet; i.e., over-collateralization, where it exists, is not reflected in the table. 5 Includes assets not subject to enforceable netting arrangements and other out-of-scope items.

## Note 24 Offsetting financial assets and financial liabilities (continued)

The table below provides a summary of financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements, as well as financial collateral pledged to mitigate credit exposures for these financial liabilities. The gross financial liabilities of UBS AG that are subject to offsetting, enforceable netting arrangements and similar agreements are reconciled to the net amounts presented within the associated balance sheet line, after giving effect to financial assets with the same counterparties that have been offset on the balance sheet and other financial liabilities not subject to an enforceable netting arrangement or similar agreement. Further, related amounts for financial assets and collateral pledged that are not offset on the balance sheet are shown to arrive at financial liabilities after consideration of netting potential.

**Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements**

| | Liabilities subject to netting arrangements | | | | | | Liabilities not subject to netting arrangements[4] | Total liabilities | |
|---|---|---|---|---|---|---|---|---|---|
| | Netting recognized on the balance sheet | | | Netting potential not recognized on the balance sheet[3] | | | | | |
| *As of 31.12.16, CHF billion* | Gross liabilities before netting | Netting with gross assets[2] | Net liabilities recognized on the balance sheet | Financial assets | Collateral pledged | Liabilities after consideration of netting potential | Liabilities recognized on the balance sheet | Total liabilities after consideration of netting potential | Total liabilities recognized on the balance sheet |
| Cash collateral on securities lent | 2.6 | 0.0 | 2.6 | (0.9) | (1.7) | 0.0 | 0.2 | 0.2 | 2.8 |
| Repurchase agreements | 76.7 | (71.5) | 5.2 | (2.1) | (3.1) | 0.0 | 1.4 | 1.4 | 6.6 |
| Negative replacement values | 146.3 | (2.5) | 143.9 | (113.1) | (16.6) | 14.2 | 10.0 | 24.2 | 153.8 |
| Cash collateral payables on derivative instruments[1] | 48.5 | (15.1) | 33.4 | (20.8) | (1.4) | 11.2 | 2.1 | 13.3 | 35.5 |
| Financial liabilities designated at fair value | 2.8 | 0.0 | 2.8 | 0.0 | (0.2) | 2.6 | 52.2 | 54.8 | 55.0 |
| **Total liabilities** | 276.9 | (89.1) | 187.9 | (137.0) | (22.9) | 28.0 | 65.9 | 93.9 | 253.7 |
| *As of 31.12.15, CHF billion* | | | | | | | | | |
| Cash collateral on securities lent | 7.9 | 0.0 | 7.9 | (3.1) | (4.8) | 0.0 | 0.1 | 0.1 | 8.0 |
| Repurchase agreements | 69.0 | (62.1) | 6.9 | (4.4) | (2.5) | 0.0 | 2.8 | 2.8 | 9.7 |
| Negative replacement values | 154.2 | (2.5) | 151.7 | (123.0) | (17.4) | 11.3 | 10.7 | 22.1 | 162.4 |
| Cash collateral payables on derivative instruments[1] | 99.9 | (66.3) | 33.6 | (19.0) | (2.5) | 12.1 | 4.7 | 16.8 | 38.3 |
| Financial liabilities designated at fair value | 3.9 | 0.0 | 3.9 | 0.0 | (0.7) | 3.1 | 59.1 | 62.3 | 63.0 |
| **Total liabilities** | **334.9** | **(131.0)** | **203.9** | **(149.4)** | **(28.0)** | **26.5** | **77.4** | **104.0** | **281.4** |

1 The net amount of Cash collateral payables on derivative instruments recognized on the balance sheet includes certain OTC derivatives that are net settled on a daily basis either legally or in substance under IAS 32 principles and ETD that are economically settled on a daily basis. In 2016 UBS AG elected to convert its IRS transacted with the London Clearing House and Japan Securities Clearing Corporation from the previous collateral model to a settlement model. As a result, gross assets and liabilities and corresponding netting decreased by CHF 64 billion as of 31 December 2016, with no change to net assets and liabilities recognized on the balance sheet. Refer to Note 1b for more information. 2 The logic of the table results in amounts presented in the "Netting with gross assets" column corresponding directly to the amounts presented in the "Netting with gross liabilities" column in the assets table presented on the previous page. 3 For the purpose of this disclosure, the amounts of financial instruments and cash collateral presented have been capped by the relevant netting agreement so as not to exceed the net amount of financial liabilities presented on the balance sheet; i.e., over-collateralization, where it exists, is not reflected in the table. 4 Includes liabilities not subject to enforceable netting arrangements and other out-of-scope items.

## Note 25 Measurement categories, credit risk and maturity analysis of financial instruments

### a) Measurement categories of financial assets and liabilities

The table below provides information about the carrying amounts of individual classes of financial instruments within the measurement categories of financial assets and liabilities as defined in IAS 39 *Financial Instruments: Recognition and Measurement*. Only those assets and liabilities that are financial instruments as defined in IAS 32 *Financial Instruments: Presentation* are included in the table below, which causes certain balances to differ from those presented on the balance sheet.

→ **Refer to Note 22 for more information on how the fair value of financial instruments is determined**

**Measurement categories of financial assets and financial liabilities**

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| **Financial assets**[1] | | |
| **Held for trading** | | |
| Trading portfolio assets | 92,112 | 120,405 |
| Due to customers[2] | 12 | 0 |
| Debt issued[2] | 38 | 106 |
| Positive replacement values | 158,411 | 167,435 |
| **Total** | 250,572 | 287,946 |
| **Fair value through profit or loss** | | |
| Financial assets designated at fair value | 65,024 | 5,808 |
| Other assets | 131 | 0 |
| **Total** | 65,155 | 5,808 |
| **Financial assets at amortized cost** | | |
| Cash and balances with central banks | 107,767 | 91,306 |
| Due from banks | 13,125 | 11,866 |
| Cash collateral on securities borrowed | 15,111 | 25,584 |
| Reverse repurchase agreements | 66,246 | 67,893 |
| Cash collateral receivables on derivative instruments | 26,664 | 23,763 |
| Loans[3] | 307,004 | 312,723 |
| Financial assets held to maturity | 9,289 | 0 |
| Other assets | 18,519 | 20,139 |
| **Total** | 563,727 | 553,275 |
| **Available for sale** | | |
| Financial assets available for sale | 15,676 | 62,543 |
| **Total financial assets** | 895,131 | 909,572 |
| | | |
| **Financial liabilities** | | |
| **Held for trading** | | |
| Trading portfolio liabilities | 22,825 | 29,137 |
| Debt issued[2] | 0 | 236 |
| Negative replacement values | 153,810 | 162,430 |
| **Total** | 176,635 | 191,803 |
| **Fair value through profit or loss** | | |
| Financial liabilities designated at fair value | 55,017 | 62,995 |
| Amounts due under unit-linked investment contracts | 9,286 | 15,718 |
| Other liabilities | 131 | 0 |
| **Total** | 64,434 | 78,713 |
| **Financial liabilities at amortized cost** | | |
| Due to banks | 10,645 | 11,836 |
| Cash collateral on securities lent | 2,818 | 8,029 |
| Repurchase agreements | 6,612 | 9,653 |
| Cash collateral payables on derivative instruments | 35,472 | 38,282 |
| Due to customers | 450,211 | 402,522 |
| Debt issued | 79,036 | 82,230 |
| Other liabilities | 38,992 | 52,065 |
| **Total** | 623,786 | 604,617 |
| **Total financial liabilities** | 864,855 | 875,133 |

1 As of 31 December 2016, CHF 126 billion of Loans, CHF 0 billion of Due from banks, CHF 1 billion of Reverse repurchase agreements, CHF 10 billion of Financial assets available for sale, CHF 29 billion of Financial assets designated at fair value and CHF 8 billion of Financial assets held to maturity are expected to be recovered or settled after 12 months. As of 31 December 2015, CHF 123 billion of Loans, CHF 0 billion of Due from banks, CHF 1 billion of Reverse repurchase agreements, CHF 30 billion of Financial assets available for sale and CHF 3 billion of Financial assets designated at fair value are expected to be recovered or settled after 12 months. 2 Represents the embedded derivative component of structured financial instruments for which the fair value option has not been applied and that is presented within Due to customers and Debt issued on the balance sheet. 3 Includes finance lease receivables of CHF 1.0 billion as of 31 December 2016 (31 December 2015: CHF 1.1 billion). Refer to Notes 10 and 31 for more information.

**Note 25 Measurement categories, credit risk and maturity analysis of financial instruments (continued)**

## b) Maximum exposure to credit risk

The tables on the following pages provide UBS AG's maximum exposure to credit risk by class of financial instrument and the respective collateral and other credit enhancements mitigating credit risk for these classes of financial instruments.

The maximum exposure to credit risk includes the carrying amounts of financial instruments recognized on the balance sheet subject to credit risk and the notional amounts for off-balance sheet arrangements. Where information is available, collateral is presented at fair value. For other collateral such as real estate, a reasonable alternative value is used. Credit enhancements, such as credit derivative contracts and guarantees, are included at their notional amounts. Both are capped at the maximum exposure to credit risk for which they serve as security.

### Maximum exposure to credit risk

| | 31.12.16 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Collateral | | | | Credit enhancements | | |
| *CHF billion* | Maximum exposure to credit risk | Cash collateral received | Collateral-ized by securities | Secured by real estate | Other collateral[1] | Netting | Credit derivative contracts | Guarantees |
| **Financial assets measured at amortized cost on the balance sheet** | | | | | | | | |
| Balances with central banks | 107.1 | | | | | | | |
| Due from banks[2] | 13.1 | | | | | | | |
| Cash collateral on securities borrowed | 15.1 | | 14.8 | | | | | |
| Reverse repurchase agreements | 66.2 | | 62.5 | | 3.2 | | | |
| Cash collateral receivables on derivative instruments[3,4] | 26.7 | | | | | 15.1 | | |
| Loans[5] | 307.0 | 17.9 | 99.6 | 158.2 | 14.6 | | 0.1 | 1.8 |
| Financial assets held to maturity | 9.3 | | | | | | | |
| Other assets | 18.6 | | 10.0 | | | | | |
| **Total financial assets measured at amortized cost** | 563.2 | 17.9 | 186.9 | 158.2 | 17.7 | 15.1 | 0.1 | 1.8 |
| **Financial assets measured at fair value on the balance sheet** | | | | | | | | |
| Positive replacement values[4] | 158.4 | | 5.3 | | | 134.5 | | |
| Trading portfolio assets – debt instruments[6,7] | 21.9 | | | | | | | |
| Financial assets designated at fair value – debt instruments[8] | 64.8 | | 2.6 | | | | 0.6 | |
| Financial assets available for sale – debt instruments[8] | 14.9 | | | | | | | |
| **Total financial assets measured at fair value** | 260.0 | 0.0 | 7.9 | 0.0 | 0.0 | 134.5 | 0.6 | 0.0 |
| **Total maximum exposure to credit risk reflected on the balance sheet** | 823.2 | 17.9 | 194.9 | 158.2 | 17.7 | 149.6 | 0.7 | 1.8 |
| Guarantees[9] | 16.7 | 1.4 | 2.0 | 0.2 | 1.2 | | 0.1 | 3.0 |
| Loan commitments[9] | 54.4 | 0.1 | 3.9 | 1.0 | 9.5 | | 4.8 | 2.0 |
| Forward starting transactions, reverse repurchase and securities borrowing agreements | 10.2 | | 10.2 | | | | | |
| **Total maximum exposure to credit risk not reflected on the balance sheet** | 81.3 | 1.5 | 16.1 | 1.1 | 10.6 | 0.0 | 4.9 | 5.1 |
| **Total** | 904.5 | 19.4 | 210.9 | 159.4 | 28.4 | 149.6 | 5.7 | 6.8 |

## Note 25 Measurement categories, credit risk and maturity analysis of financial instruments (continued)

### Maximum exposure to credit risk (continued)

| | 31.12.15 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Collateral | | | | Credit enhancements | | |
| *CHF billion* | Maximum exposure to credit risk | Cash collateral received | Collateralized by securities | Secured by real estate | Other collateral[1] | Netting | Credit derivative contracts | Guarantees |
| **Financial assets measured at amortized cost on the balance sheet** | | | | | | | | |
| Balances with central banks | 89.8 | | | | | | | |
| Due from banks[2] | 11.9 | | 0.2 | | | | | 0.1 |
| Cash collateral on securities borrowed | 25.6 | | 25.1 | | | | | |
| Reverse repurchase agreements | 67.9 | | 62.8 | | 4.6 | | | |
| Cash collateral receivables on derivative instruments[3,4] | 23.8 | | | | | 12.4 | | |
| Loans | 312.7 | 13.7 | 101.0 | 164.4 | 15.2 | | 0.4 | 2.9 |
| Other assets | 20.1 | | 11.1 | | | | | |
| **Total financial assets measured at amortized cost** | 551.7 | 13.7 | 200.1 | 164.4 | 19.8 | 12.4 | 0.4 | 3.0 |
| **Financial assets measured at fair value on the balance sheet** | | | | | | | | |
| Positive replacement values[4] | 167.4 | | 5.8 | | | 142.7 | | |
| Trading portfolio assets - debt instruments[6,7] | 29.0 | | | | | | | |
| Financial assets designated at fair value – debt instruments[8] | 5.6 | | 3.5 | | 0.1 | | 0.6 | |
| Financial assets available for sale – debt instruments[8] | 61.7 | | | | | | | |
| **Total financial assets measured at fair value** | 263.7 | 0.0 | 9.3 | 0.0 | 0.1 | 142.7 | 0.6 | 0.0 |
| **Total maximum exposure to credit risk reflected on the balance sheet** | 815.4 | 13.7 | 209.4 | 164.4 | 19.8 | 155.2 | 1.0 | 3.0 |
| Guarantees[9] | 16.0 | 1.2 | 2.1 | 0.2 | 1.5 | | 0.1 | 3.0 |
| Loan commitments[9] | 56.1 | | 1.8 | 1.7 | 8.7 | | 6.9 | 2.0 |
| Forward starting transactions, reverse repurchase and securities borrowing agreements | 6.6 | | 6.6 | | | | | |
| **Total maximum exposure to credit risk not reflected on the balance sheet** | 78.6 | 1.2 | 10.5 | 1.9 | 10.2 | 0.0 | 7.0 | 5.0 |
| **Total** | 894.1 | 14.9 | 220.0 | 166.3 | 30.1 | 155.2 | 8.1 | 8.0 |

1 Includes but not limited to life insurance contracts, inventory, accounts receivable, mortgage loans, patents, and copyrights. 2 Due from banks includes amounts held with third-party banks on behalf of clients. The credit risk associated with these balances may be borne by those clients. 3 Included within Cash collateral receivables on derivative instruments are margin balances due from exchanges or clearing houses. Some of these margin balances reflect amounts transferred on behalf of clients who retain the associated credit risk. 4 The amount shown in the netting column represents the netting potential not recognized on the balance sheet. Refer to Note 24 for more information. 5 In 2016, UBS AG aligned its collateral allocation processes across business divisions with a risk-based approach which prioritizes collateral mainly according to its liquidity profile. This resulted in increases in loans collateralized by cash of CHF 3.3 billion and increases in loans collateralized by securities of CHF 3.1 billion, while loans secured by real estate decreased by CHF 5.2 billion and loans secured by guarantees decreased by CHF 1.2 billion. 6 These positions are generally managed under the market risk framework. For the purpose of this disclosure, collateral and credit enhancements were not considered. 7 Does not include debt instruments held for unit-linked investment contracts and investment fund units. 8 Does not include investment fund units. Financial assets designated at fair value collateralized by securities consisted of structured loans and reverse repurchase and securities borrowing agreements. 9 The amount shown in the "Guarantees" column largely relates to sub-participations. Refer to the "Treasury management" section of this report for more information.

#### Maximum exposure to credit risk for financial assets designated at fair value

The maximum exposure to credit risk of loans, but not structured loans, designated at fair value is generally mitigated by credit derivatives or similar instruments. As of 31 December 2016, the credit risk of such loans with a total notional amount of CHF 609 million (31 December 2015: CHF 687 million) was mitigated by credit derivatives with a total notional amount of CHF 578 million (31 December 2015: CHF 630 million) and a fair value of negative CHF 7 million (31 December 2015: positive CHF 4 million).

Changes in the fair value of loans designated at fair value attributable to changes in credit risk were not material for the years ended 31 December 2016 and 31 December 2015 and from inception until 31 December 2016 and 31 December 2015.

Similarly, changes in the fair value of credit derivatives mitigating the credit risk of loans designated at fair value were not material for the years ended 31 December 2016 and 31 December 2015 and from inception until 31 December 2016 and 31 December 2015.

→ **Refer to Note 22 for more information on financial assets designated at fair value**

## Note 25 Measurement categories, credit risk and maturity analysis of financial instruments (continued)

### c) Financial assets subject to credit risk by rating category

**Financial assets subject to credit risk by rating category**

| *CHF billion* | 31.12.16 | | | | | | |
|---|---|---|---|---|---|---|---|
| Rating category[1] | 0–1 | 2–3 | 4–5 | 6–8 | 9–13 | Defaulted | Total |
| Balances with central banks | 106.2 | 0.9 | | | | | 107.1 |
| Due from banks | 0.6 | 9.7 | 2.0 | 0.5 | 0.3 | | 13.1 |
| Cash collateral on securities borrowed and reverse repurchase agreements | 29.2 | 24.5 | 20.1 | 6.9 | 0.7 | | 81.4 |
| Positive replacement values | 19.6 | 96.9 | 34.2 | 7.4 | 0.4 | | 158.4 |
| Cash collateral receivables on derivative instruments | 6.4 | 12.2 | 6.4 | 1.6 | 0.2 | | 26.7 |
| Trading portfolio assets – debt instruments[2] | 9.0 | 6.9 | 2.9 | 1.7 | 1.3 | | 21.9 |
| Loans | 31.7 | 127.8 | 63.2 | 63.6 | 19.1 | 1.6 | 307.0 |
| Financial assets designated at fair value – debt instruments[3] | 48.4 | 12.6 | 1.0 | 1.6 | 1.3 | | 64.8 |
| Financial assets available for sale - debt instruments[3] | 12.7 | 1.8 | 0.2 | 0.1 | | | 14.9 |
| Financial assets held to maturity | 8.4 | 0.9 | | | | | 9.3 |
| Other assets | 0.1 | 2.1 | 6.2 | 7.7 | 2.2 | 0.3 | 18.6 |
| **Guarantees, commitments and forward starting transactions** | | | | | | | |
| Guarantees | 2.0 | 6.4 | 3.7 | 3.6 | 0.7 | 0.3 | 16.7 |
| Loan commitments | 2.4 | 19.5 | 17.1 | 8.7 | 6.5 | 0.1 | 54.4 |
| Forward starting transactions, reverse repurchase and securities borrowing agreements | 0.6 | 9.4 | 0.3 | | | | 10.2 |
| **Total** | 277.4 | 331.6 | 157.2 | 103.5 | 32.7 | 2.2 | 904.5 |

| *CHF billion* | 31.12.15 | | | | | | |
|---|---|---|---|---|---|---|---|
| Rating category[1] | 0–1 | 2–3 | 4–5 | 6–8 | 9–13 | Defaulted | Total |
| Balances with central banks | 87.9 | 1.3 | 0.6 | | | | 89.8 |
| Due from banks | 1.3 | 8.8 | 1.1 | 0.6 | | | 11.9 |
| Cash collateral on securities borrowed and reverse repurchase agreements | 21.7 | 40.2 | 20.1 | 11.2 | 0.4 | | 93.5 |
| Positive replacement values | 20.7 | 116.9 | 23.2 | 5.9 | 0.7 | | 167.4 |
| Cash collateral receivables on derivative instruments | 8.4 | 10.2 | 4.7 | 0.4 | 0.1 | | 23.8 |
| Trading portfolio assets – debt instruments[2] | 14.2 | 8.6 | 3.1 | 1.9 | 1.2 | | 29.0 |
| Loans | 31.9 | 132.1 | 68.2 | 61.4 | 17.7 | 1.4 | 312.7 |
| Financial assets designated at fair value – debt instruments[3] | 0.0 | 0.5 | 1.0 | 3.0 | 0.9 | 0.1 | 5.6 |
| Financial assets available for sale - debt instruments[3] | 52.4 | 9.2 | | | | | 61.7 |
| Other assets | 0.2 | 2.2 | 7.5 | 8.1 | 1.7 | 0.4 | 20.1 |
| **Guarantees, commitments and forward starting transactions** | | | | | | | |
| Guarantees | 2.2 | 7.1 | 3.6 | 2.2 | 0.7 | 0.3 | 16.0 |
| Loan commitments | 1.8 | 22.4 | 19.6 | 6.1 | 6.2 | 0.0 | 56.1 |
| Forward starting transactions, reverse repurchase and securities borrowing agreements | | 6.5 | | 0.0 | | | 6.6 |
| **Total** | **242.6** | **366.0** | **152.8** | **100.8** | **29.6** | **2.2** | **894.1** |

1 Refer to the "Internal UBS rating scale and mapping of external ratings" table in the "Risk management and control" section of this report for more information on rating categories. 2 Does not include debt instruments held for unit-linked investment contracts and investment fund units. 3 Does not include investment fund units.

**Note 25 Measurement categories, credit risk and maturity analysis of financial instruments (continued)**

## d) Maturity analysis of financial liabilities

The contractual maturities for non-derivative and non-trading financial liabilities as of 31 December 2016 are based on the earliest date on which UBS could be contractually required to pay. The total amounts that contractually mature in each time band are also shown for 31 December 2015. Derivative positions and trading liabilities, predominantly made up of short sale transactions, are assigned to the column *Due within 1 month,* as this provides a conservative reflection of the nature of these trading activities. The contractual maturities may extend over significantly longer periods.

**Maturity analysis of financial liabilities[1]**

| *CHF billion* | Due within 1 month | Due between 1 and 3 months | Due between 3 and 12 months | Due between 1 and 5 years | Due after 5 years | Total |
|---|---|---|---|---|---|---|
| **Financial liabilities recognized on-balance sheet[2]** | | | | | | |
| Due to banks | 7.4 | 1.4 | 1.8 | 0.1 | 0.0 | 10.7 |
| Cash collateral on securities lent | 2.2 | 0.6 | | | | 2.8 |
| Repurchase agreements | 4.7 | 1.0 | 0.7 | 0.1 | 0.0 | 6.6 |
| Trading portfolio liabilities[3,4] | 22.8 | | | | | 22.8 |
| Negative replacement values[3] | 153.8 | | | | | 153.8 |
| Cash collateral payables on derivative instruments | 35.5 | | | | | 35.5 |
| Due to customers | 408.5 | 13.8 | 3.3 | 9.1 | 20.9 | 455.6 |
| Financial liabilities designated at fair value[5] | 16.8 | 14.7 | 11.1 | 8.4 | 5.9 | 57.0 |
| Debt issued | 7.8 | 7.8 | 23.3 | 28.2 | 18.7 | 85.8 |
| Other liabilities | 47.0 | | | | | 47.0 |
| **Total 31.12.16** | **706.7** | **39.2** | **40.2** | **45.9** | **45.6** | **877.7** |
| Total 31.12.15 | 712.5 | 44.3 | 36.4 | 53.0 | 44.6 | 890.7 |
| **Guarantees, commitments and forward starting transactions[6]** | | | | | | |
| Loan commitments | 54.0 | 0.2 | 0.2 | 0.0 | | 54.4 |
| Guarantees | 16.7 | | | | | 16.7 |
| **Forward starting transactions** | | | | | | |
| Reverse repurchase agreements | 10.2 | | | | | 10.2 |
| Securities borrowing agreements | 0.0 | | | | | 0.0 |
| **Total 31.12.16** | **81.0** | **0.2** | **0.2** | **0.0** | **0.0** | **81.4** |
| Total 31.12.15 | 78.1 | 0.2 | 0.2 | 0.1 | 0.0 | 78.7 |

1 Non-financial liabilities such as deferred income, deferred tax liabilities, provisions and liabilities on employee compensation plans are not included in this analysis. 2 Except for trading portfolio liabilities and negative replacement values (see footnote 3), the amounts presented generally represent undiscounted cash flows of future interest and principal payments. 3 Carrying value is fair value. Management believes that this best represents the cash flows that would have to be paid if these positions had to be settled or closed out. Refer to Note 12 for undiscounted cash flows of derivatives designated in hedge accounting relationships. 4 Contractual maturities of trading portfolio liabilities are: CHF 21.8 billion due within one month (2015: CHF 27.2 billion), CHF 1.0 billion due between one month and one year (2015: CHF 1.2 billion), and CHF 0.1 billion due between 1 and 5 years (2015: CHF 0.8 billion). 5 Future interest payments on variable rate liabilities are determined by reference to the applicable interest rate prevailing as of the reporting date. Future principal payments that are variable are determined by reference to the conditions existing at the reporting date. 6 Comprises the maximum irrevocable amount of guarantees, commitments and forward starting transactions.

## e) Reclassification of financial assets

In 2008 and 2009, certain financial assets were reclassified from *Trading portfolio assets* to *Loans*. On their reclassification date, these assets had fair values of CHF 26 billion and CHF 0.6 billion, respectively.

The reclassification of financial assets reflected UBS's change in intent and ability to hold these financial assets for the foreseeable future rather than for trading in the near term. The financial assets were reclassified using their fair value on the date of the reclassification, which became their new cost basis at that date.

As of 31 December 2016, the carrying value of the remaining reclassified financial assets, which were entirely comprised of municipal auction rate securities, was CHF 0.2 billion (31 December 2015: CHF 0.2 billion), which was approximately equal to the fair value of these assets.

The overall effect on operating profit before tax from reclassified financial assets for the year ended 31 December 2016 was a profit of CHF 1 million (2015: CHF 23 million). If the financial assets had not been reclassified, the impact on operating profit before tax for the year ended 31 December 2016 would have been a profit of CHF 10 million.

## Note 26 Pension and other post-employment benefit plans

The table below provides information about expenses for pension and other post-employment benefit plans. These expenses are part of *Personnel expenses*.

**Income statement – expenses related to pension and other post-employment benefit plans**

| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
|---|---|---|---|
| Net periodic expenses for defined benefit plans | 435 | 569 | 467 |
| *of which: related to major pension plans*[1] | *412* | *546* | *508* |
| *of which: Swiss plan*[2] | *381* | *515* | *458* |
| *of which: UK plan* | *(2)* | *18* | *17* |
| *of which: US and German plans* | *33* | *12* | *33* |
| *of which: related to post-employment medical and life insurance plans*[3] | *4* | *4* | *(36)* |
| *of which: UK plan* | *1* | *1* | *2* |
| *of which: US plans* | *3* | *2* | *(37)* |
| *of which: related to remaining plans and other expenses*[4] | *19* | *19* | *(5)* |
| Expenses for defined contribution plans[5] | 236 | 239 | 244 |
| *of which: UK plans* | *77* | *86* | *91* |
| *of which: US plan* | *106* | *100* | *91* |
| *of which: remaining plans* | *53* | *53* | *62* |
| **Total pension and other post-employment benefit plan expenses**[6] | 670 | 808 | 711 |

1 Refer to Note 26a for more information. 2 The reduction in net periodic pension expenses for the Swiss pension plan between 2016 and 2015 related primarily to changes in demographic and financial assumptions. 3 Refer to Note 26b for more information. The US post-employment life insurance policy was terminated in 2014. Only the amounts disclosed for 2014 include expenses with regard to life insurance benefits. 4 Other expenses include differences between actual and estimated performance award accruals and net accrued pension expenses related to restructuring. 5 Refer to Note 26c for more information. 6 Refer to Note 6.

The table below provides information relating to amounts recognized in *Other comprehensive income* for defined benefit plans.

**Other comprehensive income – gains / (losses) on defined benefit plans**

| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
|---|---|---|---|
| Major pension plans[1] | (837) | 339 | (1,456) |
| *of which: Swiss plan* | *(105)* | *58* | *(1,032)* |
| *of which: UK plan* | *(610)* | *317* | *(168)* |
| *of which: US and German plans* | *(122)* | *(35)* | *(256)* |
| Post-employment medical and life insurance plans[2] | (13) | (3) | (5) |
| *of which: UK plan* | *(6)* | *6* | *(3)* |
| *of which: US plans* | *(7)* | *(9)* | *(2)* |
| Remaining plans | (26) | (14) | 7 |
| Gains / (losses) recognized in other comprehensive income, before tax | (876) | 322 | (1,454) |
| Tax (expense) / benefit relating to defined benefit plans recognized in other comprehensive income | 52 | (19) | 247 |
| **Gains / (losses) recognized in other comprehensive income, net of tax**[3] | (824) | 303 | (1,208) |

1 Refer to Note 26a for more information. 2 Refer to Note 26b for more information. The US post-employment life insurance policy was terminated in 2014. Amounts with regard to life insurance benefits are included only in the year ended on 31 December 2014. 3 Refer to the "Statement of comprehensive income".

## Note 26 Pension and other post-employment benefit plans (continued)

UBS AG recognizes assets and liabilities with respect to defined benefit plans within *Other assets* and *Other liabilities*.

As of 31 December 2016 and 31 December 2015, the Swiss pension plan was in a surplus situation. However, a surplus is only recognized on the balance sheet to the extent that it does not exceed the estimated future economic benefit. Since the estimated future economic benefit was zero as of 31 December 2016 and 31 December 2015, no net defined benefit pension asset was recognized on the balance sheet.

The tables below provide information on UBS AG's assets and liabilities with respect to defined benefit plans.

**Balance sheet – net defined benefit pension and post-employment asset**

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Major pension plans[1] | 0 | 50 |
| *of which: Swiss plan* | *0* | *0* |
| *of which: UK plan* | *0* | *50* |
| **Total net defined benefit pension and post-employment asset[2]** | 0 | 50 |

1 Refer to Note 26a for more information. 2 Refer to Note 16.

**Balance sheet – net defined benefit pension and post-employment liability**

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Major pension plans[1] | 1,140 | 622 |
| *of which: Swiss plan* | *0* | *0* |
| *of which: UK plan* | *529* | *0* |
| *of which: US and German plans[2]* | *611* | *622* |
| Post-employment medical insurance plans[3] | 91 | 84 |
| *of which: UK plan* | *26* | *25* |
| *of which: US plans* | *65* | *59* |
| Remaining plans | 35 | 30 |
| **Total net defined benefit pension and post-employment liability[4]** | 1,266 | 736 |

1 Refer to Note 26a for more information. 2 Of the total liability as of 31 December 2016, CHF 265 million related to US plans and CHF 346 million related to German plans (31 December 2015: CHF 315 million related to US plans and CHF 307 million related to German plans). 3 Refer to Note 26b for more information. 4 Refer to Note 21.

## Note 26 Pension and other post-employment benefit plans (continued)

### a) Defined benefit pension plans

UBS AG has established defined benefit pension plans for its employees in various jurisdictions, with the major plans located in Switzerland, the UK, the US and Germany.

The overall investment policy and strategy for UBS AG's defined benefit pension plans is guided by the objective of achieving an investment return which, together with contributions, ensures that there will be sufficient assets to pay pension benefits as they fall due while also mitigating various risks. For the plans with assets (i.e., funded plans), the investment strategies are managed under local laws and regulations in each jurisdiction. The asset allocation is determined by the governance body with reference to the prevailing current and expected economic and market conditions and in consideration of specific asset class risk in the risk profile. Within this framework, UBS AG ensures that the fiduciaries consider how the asset investment strategy correlates with the maturity profile of the plan liabilities and the respective potential effect on the funded status of the plans, including potential short-term liquidity requirements.

The defined benefit obligations (DBOs) for all of UBS AG's defined benefit pension plans are directly affected by changes in yields of high-quality corporate bonds quoted in an active market in the currency of the respective pension plan, as the applicable discount rate used to determine the DBO is based on these yields. For the funded plans, the pension assets are invested in a diversified portfolio of financial assets, including real estate, bonds, investment funds and cash across geographic regions to ensure a balance of risk and return. Under IAS 19, volatility arises in each pension plan's net asset / liability position because the fair value of the plan's financial assets is not fully correlated to movements in the value of the plan's DBO. Specific asset-liability matching strategies for each pension plan are independently determined by the responsible governance body. The net asset / liability volatility for each plan is dependent on the specific financial assets chosen by each plan's governance body. For certain pension plans, a liability-driven investment approach is applied to a portion of the plan assets to reduce potential volatility.

#### Swiss pension plan

The Swiss pension plan covers employees of UBS AG and employees of companies having close economic or financial ties with UBS AG and exceeds the minimum benefit requirements under Swiss pension law.

Contributions to the pension plan are paid by both the employer and the employees. The Swiss pension plan allows employees to choose the level of contributions paid by them. Employee contributions are calculated as a percentage of the contributory salary and are deducted monthly. The percentages deducted from salary depend on age and choice of contribution category and vary between 1% and 13.5% of contributory base salary and between 0% and 9% of contributory variable compensation. Depending on the age of the employee, UBS AG pays a contribution that ranges between 6.5% and 27.5% of contributory base salary and between 3.6% and 9% of contributory variable compensation. UBS AG also pays risk contributions which are used to finance benefits paid out in the event of death and disability, as well as to finance bridging pensions.

The plan benefits include retirement benefits and disability, death and survivor pensions. The pension plan offers to members at the normal retirement age of 64 a choice between a lifetime pension with or without full restitution and a partial or full lump sum payment. Members can draw early retirement benefits starting from the age of 58. Since 2015, employees have the possibility to make additional purchases of benefits to fund early retirement benefits (Plan 58+).

The pension amount payable is a result of the conversion rate applied on the accumulated balance of the individual plan participant's pension account at the retirement date. The accumulated balance of each individual plan participant's pension account is based on credited vested benefits transferred from previous employers, purchases of benefits and the employee and employer contributions that have been made to the pension account of each individual plan participant, as well as the interest accrued on the accumulated balance. The interest rate accrued is defined annually by the Pension Foundation Board.

Although the Swiss pension plan is based on a defined contribution promise under Swiss pension law, it is accounted for as a defined benefit plan under IAS 19, primarily because of the obligation to accrue interest on the pension accounts and the payment of lifetime pension benefits.

**Note 26 Pension and other post-employment benefit plans (continued)**

The Swiss pension plan is governed by a Pension Foundation Board as required by Swiss pension law. The responsibilities of this board are defined by Swiss pension law and by the plan rules. An actuarial valuation under Swiss pension law is performed regularly. According to Swiss pension law, a temporary limited underfunding is permitted. However, should an underfunded situation occur, the Pension Foundation Board is required to take the necessary measures to ensure that full funding can be expected to be restored within a maximum period of 10 years. If a Swiss pension plan were to become significantly underfunded on a Swiss pension law basis, additional employer and employee contributions could be required. In these situations, the risk is shared between employer and employees, and the employer is not legally obliged to cover more than 50% of the additional contributions required. As of 31 December 2016, the Swiss pension plan had a technical funding ratio under Swiss pension law of 125.4% (31 December 2015: 123.3%).

The investment strategy of the Swiss plan is implemented on the basis of a multi-level investment and risk management process and is in line with Swiss pension law, including the rules and regulations relating to diversification of plan assets. These rules, among others, specify restrictions to the composition of plan assets, e.g., there is a limit of 50% for investments in equities. The investment strategy of the Swiss plan is aligned with the defined risk budget set out by the Pension Foundation Board. The risk budget is determined on the basis of regularly performed asset and liability management analyses. In order to implement the risk budget, the Swiss plan may use direct investments, investment funds and derivatives. To mitigate foreign currency risk, a specific currency hedging strategy is in place. The Pension Foundation Board strives for a medium- and long-term balance between assets and liabilities.

As of 31 December 2016, the Swiss pension plan was in a surplus situation on an International Financial Reporting Standards (IFRS) measurement basis, as the fair value of plan assets exceeded the DBO by CHF 1,749 million (31 December 2015: surplus of CHF 1,283 million). However, a surplus is only recognized on the balance sheet to the extent that it does not exceed the estimated future economic benefit, which equals the difference between the present value of the estimated future net service cost and the present value of the estimated future employer contributions. The maximum future economic benefit is highly variable based on changes in the discount rate. Both as of 31 December 2016 and 31 December 2015, the estimated future economic benefit was zero and hence no net defined benefit asset was recognized on the balance sheet. As of 31 December 2016, the difference between the pension plan surplus and the estimated future economic benefit, i.e., the asset ceiling effect, was CHF 1,749 million (31 December 2015: CHF 1,283 million). CHF 452 million out of the total movement of CHF 466 million was recognized in *Other comprehensive income* and CHF 14 million related to interest expense on the asset ceiling effect was recognized in the income statement. As of 31 December 2015, the total asset ceiling effect of CHF 1,283 million was recognized in *Other comprehensive income*. The employer contributions expected to be made to the Swiss pension plan in 2017 are estimated to be CHF 478 million.

## Non-Swiss pension plans

UBS AG locations outside of Switzerland offer various defined benefit pension plans in accordance with local regulations and practices. The non-Swiss locations with major defined benefit pension plans are the UK, the US and Germany. Defined benefit pension plans in other locations are not material to the financial results of UBS AG and hence not separately disclosed.

The non-Swiss plans provide benefits in the event of retirement, death or disability. The level of benefits provided depends on the specific rate of benefit accrual and the level of employee compensation. UBS AG's general principle is to ensure that the plans are adequately funded on the basis of actuarial valuations. Local pension regulations and tax requirements are the primary drivers for determining when contributions are required.

### *UK pension plan*

The UK plan is a career-average revalued earnings scheme, and benefits increase automatically based on UK price inflation. Normal retirement age for participants in the UK plan is 60. The UK defined benefit pension plan participants are no longer accruing benefits for current or future service. Active employees instead participate in the UK defined contribution plan.

The governance responsibility for the UK plan lies jointly with the Pension Trustee Board, which is required under local pension laws, and UBS AG. The employer contributions to the pension fund reflect agreed-upon deficit-funding contributions, which are determined on the basis of the most recent actuarial valuation using assumptions agreed by the Pension Trustee Board and UBS AG. In the event of underfunding, UBS AG and the Pension Trustee Board must agree on a deficit recovery plan within statutory deadlines. In 2016, UBS AG did not make any deficit-funding contributions (2015: CHF 316 million).

The plan assets are invested in a diversified portfolio of financial assets. A liability-driven investment approach is applied, as a portion of the plan assets is invested in inflation-indexed bonds which provide a partial hedge against price inflation. If price inflation increases, the DBO will likely increase more significantly than the change in the fair value of plan assets, which would result in an increase in the net defined benefit liability. Plan rules and local pension legislation cap the level of inflationary increase that can be applied to plan benefits.

As the plan is obligated to provide guaranteed lifetime pension benefits to plan participants upon retirement, increases in life expectancy will result in an increase in the plan's liabilities. The sensitivity to changes in life expectancy is particularly high in the UK plan as the pension benefits are indexed to price inflation.

**Note 26 Pension and other post-employment benefit plans (continued)**

As of 31 December 2016, the UK plan was in a deficit situation on an IFRS measurement basis as the DBO exceeded the fair value of plan assets by CHF 529 million (31 December 2015: surplus of CHF 50 million).

No employer contributions are currently scheduled to be made to the UK defined benefit pension plan in 2017.

*US pension plans*

There are two distinct major defined benefit pension plans in the US. Normal retirement age for participants in both US plans is 65. The plans are closed to new entrants, who instead can participate in defined contribution plans.

One of the major defined benefit pension plans is a contribution-based plan in which each participant accrues a percentage of salary in a pension account. The pension account is credited annually with interest based on a rate that is linked to the average yield on one-year US government bonds. For the other major defined benefit pension plan, retirement benefits accrue based on the career-average earnings of each individual plan participant. Upon retirement, the plans allow participants a choice between a lump sum payment and a lifetime pension.

As required under local state pension laws, both plans have fiduciaries who, together with UBS AG, are responsible for the governance of the plans. UBS AG regularly reviews the contribution strategy for these plans. In determining the contribution strategy, UBS AG considers the minimum funding requirements (i.e., 80% funded ratio on a basis determined under local pension regulations) and the cost of any premiums that must be paid to the Pension Benefit Guaranty Corporation for having an underfunded plan. In 2016, the contributions made by UBS AG were CHF 172 million (2015: CHF 50 million).

The plan assets for both plans are invested in a diversified portfolio of financial assets. Each pension plan's fiduciaries are responsible for the investment decisions with respect to the plan assets. A liability-driven investment approach is applied for one of the US plans to support the volatility management in the net asset / liability position. Derivative instruments may also be employed to manage volatility.

In 2015, the US pension plan rules were amended to the effect that former UBS AG employees with vested benefits in the US defined benefit pension plans have the option to receive a lump sum payment (or early annuity payments) instead of a lifetime pension commencing at retirement age. This resulted in a reduction in the DBO of CHF 24 million and a corresponding gain recognized in the income statement in 2015, of which CHF 21 million was recorded in Wealth Management Americas.

The employer contributions expected to be made to the US defined benefit pension plans in 2017 are estimated to be CHF 20 million.

*German pension plans*

There are two different defined benefit pension plans in Germany, and both are contribution-based plans. No plan assets are set aside to fund these plans, and benefits are directly paid by UBS AG. Normal retirement age for the participants in the German plans is 65. Within the larger of the two pension plans, each participant accrues a percentage of salary in a pension account. The accumulated account balance of the plan participant is credited on an annual basis with guaranteed interest at a rate of 5%. In the other plan, amounts are accrued annually based on employee elections. For this plan, the accumulated account balance is credited on an annual basis with a guaranteed interest rate of 4% for amounts accrued after 2009. Both German plans are regulated under German pension law, under which the responsibility to pay pension benefits when they are due rests entirely with UBS AG. For the German plans, a portion of the pension payments is directly increased in line with price inflation.

The benefits expected to be paid by UBS AG to the participants of the German plans in 2017 are estimated to be CHF 9 million.

Financial information by plan

The table on the following pages provides an analysis of the movement in the net asset / liability recognized on the balance sheet for defined benefit pension plans, as well as an analysis of amounts recognized in net profit and in *Other comprehensive income*.

## Note 26 Pension and other post-employment benefit plans (continued)

**Defined benefit pension plans**

| *CHF million* | Swiss plan | | UK plan | | US and German plans | | Total | |
|---|---|---|---|---|---|---|---|---|
| For the year ended | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| Defined benefit obligation at the beginning of the year | 22,636 | 23,956 | 3,350 | 3,949 | 1,619 | 1,693 | 27,605 | 29,598 |
| Current service cost | 471 | 589 | 0 | 0 | 9 | 10 | 480 | 599 |
| Interest expense | 240 | 270 | 116 | 137 | 62 | 57 | 419 | 463 |
| Plan participant contributions | 210 | 205 | 0 | 0 | 0 | 0 | 210 | 205 |
| Remeasurements | 477 | (1,231) | 922 | (441) | 125 | (8) | 1,524 | (1,681) |
| *of which: actuarial (gains) / losses due to changes in demographic assumptions* | *(659)* | *(1,038)* | *(63)* | *(122)* | *3* | *34* | *(719)* | *(1,125)* |
| *of which: actuarial (gains) / losses due to changes in financial assumptions* | *698* | *(237)* | *1,022* | *(201)* | *107* | *(71)* | *1,827* | *(509)* |
| *of which: experience (gains) / losses[1]* | *438* | *44* | *(37)* | *(119)* | *15* | *28* | *416* | *(47)* |
| Past service cost related to plan amendments | 0 | 0 | 0 | 0 | 0 | (24) | 0 | (24) |
| Curtailments | (96) | (81) | 0 | 0 | 0 | 0 | (96) | (81) |
| Benefit payments | (1,074) | (1,071) | (135) | (128) | (98) | (83) | (1,307) | (1,283) |
| Termination benefits | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Other movements | 0 | 0 | 0 | 0 | 19 | 0 | 19 | 0 |
| Foreign currency translation | 0 | 0 | (549) | (166) | 20 | (26) | (529) | (192) |
| **Defined benefit obligation at the end of the year** | 22,865 | 22,636 | 3,704 | 3,350 | 1,755 | 1,619 | 28,325 | 27,605 |
| *of which: amounts owing to active members* | *10,419* | *10,359* | *290* | *255* | *258* | *267* | *10,967* | *10,881* |
| *of which: amounts owing to deferred members* | *0* | *0* | *2,210* | *1,864* | *584* | *523* | *2,794* | *2,388* |
| *of which: amounts owing to retirees* | *12,446* | *12,278* | *1,204* | *1,230* | *913* | *829* | *14,563* | *14,336* |
| Fair value of plan assets at the beginning of the year | 23,919 | 23,931 | 3,400 | 3,381 | 997 | 1,029 | 28,316 | 28,341 |
| Return on plan assets excluding amounts included in interest income | 824 | 109 | 312 | (124) | 2 | (44) | 1,139 | (59) |
| Interest income | 258 | 273 | 118 | 118 | 44 | 39 | 420 | 430 |
| Employer contributions – excluding termination benefits | 486 | 482 | 0 | 316 | 179 | 57 | 665 | 855 |
| Employer contributions – termination benefits | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Plan participant contributions | 210 | 205 | 0 | 0 | 0 | 0 | 210 | 205 |
| Benefit payments | (1,074) | (1,071) | (135) | (128) | (98) | (83) | (1,307) | (1,283) |
| Administration expenses, taxes and premiums paid | (10) | (10) | 0 | 0 | (6) | (8) | (16) | (18) |
| Foreign currency translation | 0 | 0 | (520) | (163) | 26 | 7 | (494) | (156) |
| **Fair value of plan assets at the end of the year** | 24,614 | 23,919 | 3,175 | 3,400 | 1,144 | 997 | 28,934 | 28,316 |
| Asset ceiling effect at the beginning of the year | 1,283 | 0 | 0 | 0 | 0 | 0 | 1,283 | 0 |
| Interest expense on asset ceiling effect | 14 | 0 | 0 | 0 | 0 | 0 | 14 | 0 |
| Asset ceiling effect excluding interest expense on asset ceiling effect | 452 | 1,283 | 0 | 0 | 0 | 0 | 452 | 1,283 |
| **Asset ceiling effect at the end of the year** | 1,749 | 1,283 | 0 | 0 | 0 | 0 | 1,749 | 1,283 |
| **Net defined benefit asset / (liability)** | 0 | 0 | (529) | 50 | (611) | (622) | (1,140) | (572) |
| | | | | | | | | |
| **Movement in the net asset / (liability) recognized on the balance sheet** | | | | | | | | |
| **Net asset / (liability) recognized on the balance sheet at the beginning of the year** | 0 | (25) | 50 | (568) | (622) | (664) | (572) | (1,256) |
| Net periodic expenses | (381) | (515) | 2 | (18) | (33) | (12) | (412) | (546) |
| Amounts recognized in other comprehensive income | (105) | 58 | (610) | 317 | (122) | (35) | (837) | 339 |
| Employer contributions – excluding termination benefits | 486 | 482 | 0 | 316 | 179 | 57 | 665 | 855 |
| Employer contributions – termination benefits | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Other movements | 0 | 0 | 0 | 0 | (19) | 0 | (19) | 0 |
| Foreign currency translation | 0 | 0 | 29 | 3 | 6 | 33 | 35 | 36 |
| **Net asset / (liability) recognized on the balance sheet at the end of the year** | 0 | 0 | (529) | 50 | (611) | (622) | (1,140) | (572) |
| | | | | | | | | |
| **Funded and unfunded plans** | | | | | | | | |
| Defined benefit obligation from funded plans | 22,865 | 22,636 | 3,704 | 3,350 | 1,316 | 1,288 | 27,885 | 27,274 |
| Defined benefit obligation from unfunded plans | 0 | 0 | 0 | 0 | 440 | 331 | 440 | 331 |
| Plan assets | 24,614 | 23,919 | 3,175 | 3,400 | 1,144 | 997 | 28,934 | 28,316 |
| **Surplus / (deficit)** | 1,749 | 1,283 | (529) | 50 | (611) | (622) | 609 | 711 |
| **Asset ceiling effect** | 1,749 | 1,283 | 0 | 0 | 0 | 0 | 1,749 | 1,283 |
| **Net defined benefit asset / (liability)** | 0 | 0 | (529) | 50 | (611) | (622) | (1,140) | (572) |

1 Experience (gains) / losses are a component of actuarial remeasurements of the defined benefit obligation that reflect the effects of differences between the previous actuarial assumptions and what has actually occurred.

## Note 26 Pension and other post-employment benefit plans (continued)

**Analysis of amounts recognized in net profit**

| *CHF million* | Swiss plan | | UK plan | | US and German plans | | Total | |
|---|---|---|---|---|---|---|---|---|
| For the year ended | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| Current service cost | 471 | 589 | 0 | 0 | 9 | 10 | 480 | 599 |
| Interest expense related to defined benefit obligation | 240 | 270 | 116 | 137 | 62 | 57 | 419 | 463 |
| Interest income related to plan assets | (258) | (273) | (118) | (118) | (44) | (39) | (420) | (430) |
| Interest expense on asset ceiling effect | 14 | 0 | 0 | 0 | 0 | 0 | 14 | 0 |
| Administration expenses, taxes and premiums paid | 10 | 10 | 0 | 0 | 6 | 8 | 16 | 18 |
| Plan amendments | 0 | 0 | 0 | 0 | 0 | (24) | 0 | (24) |
| Curtailments | (96) | (81) | 0 | 0 | 0 | 0 | (96) | (81) |
| Termination benefits | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| **Net periodic expenses** | 381 | 515 | (2) | 18 | 33 | 12 | 412 | 546 |

**Analysis of amounts recognized in other comprehensive income (OCI)**

| *CHF million* | Swiss plan | | UK plan | | US and German plans | | Total | |
|---|---|---|---|---|---|---|---|---|
| For the year ended | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| Remeasurement of defined benefit obligation | (477) | 1,231 | (922) | 441 | (125) | 8 | (1,524) | 1,681 |
| Return on plan assets excluding amounts included in interest income | 824 | 109 | 312 | (124) | 2 | (44) | 1,139 | (59) |
| Asset ceiling effect excluding interest expense on asset ceiling effect | (452) | (1,283) | 0 | 0 | 0 | 0 | (452) | (1,283) |
| **Total gains / (losses) recognized in other comprehensive income, before tax** | (105) | 58 | (610) | 317 | (122) | (35) | (837) | 339 |

The table below provides information on the duration of the DBO and the timing for expected benefit payments.

| | Swiss plan | | UK plan | | US and German plans[1] | |
|---|---|---|---|---|---|---|
| | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| **Duration of the defined benefit obligation (in years)** | 15.1 | 15.1 | 22.6 | 19.7 | 10.6 | 11.3 |
| **Maturity analysis of benefits expected to be paid** | | | | | | |
| *CHF million* | | | | | | |
| Benefits expected to be paid within 12 months | 1,140 | 1,146 | 72 | 80 | 103 | 92 |
| Benefits expected to be paid between 1 and 3 years | 2,204 | 2,218 | 164 | 177 | 213 | 185 |
| Benefits expected to be paid between 3 and 6 years | 3,394 | 3,403 | 315 | 338 | 328 | 291 |
| Benefits expected to be paid between 6 and 11 years | 5,439 | 5,526 | 710 | 785 | 562 | 509 |
| Benefits expected to be paid between 11 and 16 years | 5,041 | 5,173 | 856 | 981 | 514 | 510 |
| Benefits expected to be paid in more than 16 years | 17,162 | 18,892 | 6,064 | 7,348 | 958 | 1,172 |

1 The duration of the defined benefit obligation represents a weighted average across US and German plans.

## Note 26 Pension and other post-employment benefit plans (continued)

### Actuarial assumptions

The measurement of each pension plan's DBO considers different actuarial assumptions. Changes in those assumptions lead to volatility in the DBO. The following principal actuarial assumptions are applied:

– Discount rate: the discount rate is based on the yield of high-quality corporate bonds quoted in an active market in the currency of the respective pension plan. Consequently, a decrease in the yield of high-quality corporate bonds increases the DBO. Conversely, an increase in the yield of high-quality corporate bonds decreases the DBO.
– Rate of salary increase: an increase in the salary of plan participants generally increases the DBO, specifically for the Swiss and German plans. For the UK plan, as the plan is closed for future service, UBS AG employees no longer accrue future service benefits and thus salary increases have no effect on the DBO. For the US plans, only a small percentage of the total population continues to accrue benefits for future service, therefore the effect of a salary increase on the DBO is minimal.
– Rate of pension increase: for the Swiss plan, there is no automatic indexing of pensions. Any increase would be decided by the Pension Foundation Board. For the US plans, there is also no automatic indexing of pensions. For the UK plan, pensions are automatically indexed to price inflation as per plan rules and local pension legislation. The German plans are also automatically indexed and a portion of the pensions are directly increased by price inflation. An increase in price inflation in the UK and Germany increases the respective plan's DBO.
– Rate of interest credit on retirement savings: the Swiss plan and one of the US plans have retirement saving balances that are increased annually by an interest credit rate. For these plans, an increase in the interest credit rate increases the respective plan's DBO.
– Life expectancy: for most of UBS AG's defined benefit pension plans, the respective plan is obligated to provide guaranteed lifetime pension benefits. The DBO for all plans is calculated using an underlying best estimate of the life expectancy of plan participants. An increase in the life expectancy of plan participants increases the plan's DBO.

The actuarial assumptions used for the pension plans are based on the economic conditions prevailing in the jurisdiction in which they operate.

→ **Refer to Note 1a item 7 for a description of the accounting policy for defined benefit pension plans**

### Changes in actuarial assumptions

UBS AG regularly reviews the actuarial assumptions used in calculating its DBO to determine their continuing relevance.

#### *Swiss pension plan*

In 2016, UBS AG continued to enhance its methodology for estimating the discount rate by improving the construction of the yield curve from Swiss high-quality corporate bonds. Furthermore, UBS AG refined its approach for estimating the life expectancy, the rate of employee disability and the rate of salary increases. These changes in estimates decreased the DBO of the Swiss pension plan by CHF 319 million, of which changes in demographic assumptions decreased the DBO by CHF 659 million and changes in financial assumptions increased the DBO by CHF 339 million. However, the effect from these changes in estimates was more than offset by experience losses and market-driven changes in the discount rate, resulting in a total upward remeasurement of the Swiss plan DBO of CHF 477 million, which was recognized in *Other comprehensive income*.

In 2015, the effect from an enhancement in methodology for estimating the discount rate and from the refinement of the approach to estimate the rate of salary increases, the rate of interest credit on retirement savings, the employee turnover rate, the rate of employee disabilities and the rate of marriage was a net decrease in the DBO of the Swiss pension plan of CHF 2,055 million, of which CHF 1,038 million related to demographic assumptions and CHF 1,017 million related to financial assumptions. The effect from these changes in estimates was partly offset by market-driven discount rate changes, resulting in an overall downward remeasurement of the Swiss plan DBO of CHF 1,231 million, which was recognized in *Other comprehensive income*.

#### *Non-Swiss pension plans*

In both 2016 and 2015, UBS AG also enhanced methodologies and refined approaches used to estimate various actuarial assumptions for its non-Swiss pension plans.

In 2016, these changes in estimates resulted in a total net decrease in the DBO of the UK pension plan of CHF 63 million, all related to demographic assumptions. However, the effect from these changes in estimates was more than offset mainly by market-driven discount rate changes, resulting in a total upward remeasurement of the UK plan DBO of CHF 922 million, which was recognized in *Other comprehensive income*.

In 2015, the changes in estimates resulted in a total net decrease in the DBO of the UK pension plan of CHF 192 million, of which CHF 122 million related to demographic assumptions and CHF 71 million related to financial assumptions. In addition, mainly market-driven discount rate changes reduced the DBO further, resulting in an overall downward remeasurement of the UK plan DBO of CHF 441 million, which was recognized in *Other comprehensive income*.

## Note 26 Pension and other post-employment benefit plans (continued)

The tables below show the principal actuarial assumptions used in calculating the DBO at the end of the year.

**Principal actuarial assumptions used**

| | Swiss plan | | UK plan | | US and German plans[1] | |
|---|---|---|---|---|---|---|
| *In %* | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| Discount rate | 0.73 | 1.09 | 2.69 | 3.90 | 3.58 | 4.01 |
| Rate of salary increase | 1.30 | 1.75 | 0.00 | 0.00 | 2.86 | 2.89 |
| Rate of pension increase | 0.00 | 0.00 | 3.18 | 3.02 | 1.50 | 1.50 |
| Rate of interest credit on retirement savings | 0.73 | 1.09 | 0.00 | 0.00 | 1.74 | 1.48 |

1 Represents weighted average assumptions across US and German plans.

**Mortality tables and life expectancies for major plans**

| | | Life expectancy at age 65 for a male member currently | | | |
|---|---|---|---|---|---|
| | | aged 65 | | aged 45 | |
| Country | Mortality table | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| Switzerland | BVG 2015 G CMI_2016[1] | 21.5 | 21.5 | 22.9 | 23.2 |
| UK | S2PA CMI_2015, with projections | 23.7 | 23.9 | 25.0 | 25.6 |
| US | RP2014 WCHA, with MP2016 projection scale[2] | 22.9 | 23.0 | 24.4 | 24.5 |
| Germany | Dr. K. Heubeck 2005 G | 20.1 | 20.0 | 22.8 | 22.6 |

| | | Life expectancy at age 65 for a female member currently | | | |
|---|---|---|---|---|---|
| | | aged 65 | | aged 45 | |
| Country | Mortality table | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| Switzerland | BVG 2015 G CMI_2016[1] | 23.4 | 24.0 | 24.9 | 25.7 |
| UK | S2PA CMI_2015, with projections | 25.6 | 25.8 | 27.4 | 28.0 |
| US | RP2014 WCHA, with MP2016 projection scale[2] | 24.5 | 24.6 | 26.1 | 26.2 |
| Germany | Dr. K. Heubeck 2005 G | 24.2 | 24.1 | 26.7 | 26.6 |

1 In 2015, the mortality table BVG 2010 G was used. 2 In 2015, the mortality table RP2014 WCHA, with MP2015 projection scale was used.

### Sensitivity analysis of significant actuarial assumptions

The table below presents a sensitivity analysis for each significant actuarial assumption, showing how the DBO would have been affected by changes in the relevant actuarial assumption that were reasonably possible at the balance sheet date. Unforeseen circumstances may arise, which could result in variations that are outside the range of alternatives deemed reasonably possible. Caution should be used in extrapolating the sensitivities below to the overall impact on the DBO as the sensitivities may not be linear.

**Sensitivity analysis of significant actuarial assumptions[1]**

| Increase / (decrease) in defined benefit obligation | Swiss plan | | UK plan | | US and German plans | |
|---|---|---|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| **Discount rate** | | | | | | |
| Increase by 50 basis points | (1,435) | (1,416) | (388) | (308) | (86) | (84) |
| Decrease by 50 basis points | 1,630 | 1,609 | 452 | 354 | 94 | 92 |
| **Rate of salary increase** | | | | | | |
| Increase by 50 basis points | 86 | 82 | –[2] | –[2] | 1 | 1 |
| Decrease by 50 basis points | (79) | (86) | –[2] | –[2] | (1) | (1) |
| **Rate of pension increase** | | | | | | |
| Increase by 50 basis points | 1,178 | 1,163 | 435 | 343 | 6 | 6 |
| Decrease by 50 basis points | –[3] | –[3] | (377) | (300) | (6) | (5) |
| **Rate of interest credit on retirement savings** | | | | | | |
| Increase by 50 basis points | 264 | 263 | –[4] | –[4] | 9 | 8 |
| Decrease by 50 basis points | (250) | (249) | –[4] | –[4] | (8) | (8) |
| **Life expectancy** | | | | | | |
| Increase in longevity by one additional year | 796 | 719 | 136 | 97 | 44 | 42 |

1 The sensitivity analyses are based on a change in one assumption while holding all other assumptions constant, so that interdependencies between the assumptions are excluded. 2 As the plan is closed for future service, a change in assumption is not applicable. 3 As the assumed rate of pension increase was 0% as of 31 December 2016 and as of 31 December 2015, a downward change in assumption is not applicable. 4 As the plan does not provide interest credits on retirement savings, a change in assumption is not applicable.

## Note 26 Pension and other post-employment benefit plans (continued)

### Fair value of plan assets

The table below provides information on the composition and fair value of plan assets of the Swiss, the UK and the US pension plans.

**Composition and fair value of plan assets**

**Swiss plan**

| | 31.12.16 | | | | 31.12.15 | | | |
|---|---|---|---|---|---|---|---|---|
| | Fair value | | | Plan asset allocation % | Fair value | | | Plan asset allocation % |
| *CHF million* | Quoted in an active market | Other | Total | | Quoted in an active market | Other | Total | |
| **Cash and cash equivalents** | 869 | 0 | 869 | 4 | 517 | 0 | 517 | 2 |
| **Real estate / property** | | | | | | | | |
| Domestic | 0 | 2,689 | 2,689 | 11 | 0 | 2,647 | 2,647 | 11 |
| **Investment funds** | | | | | | | | |
| Equity | | | | | | | | |
| Domestic | 938 | 0 | 938 | 4 | 699 | 0 | 699 | 3 |
| Foreign | 6,558 | 1,170 | 7,728 | 31 | 6,948 | 1,085 | 8,033 | 34 |
| Bonds[1] | | | | | | | | |
| Domestic, AAA to BBB– | 2,222 | 0 | 2,222 | 9 | 2,112 | 0 | 2,112 | 9 |
| Foreign, AAA to BBB– | 5,877 | 0 | 5,877 | 24 | 6,109 | 0 | 6,109 | 26 |
| Foreign, below BBB– | 1,176 | 0 | 1,176 | 5 | 1,056 | 0 | 1,056 | 4 |
| Real estate | | | | | | | | |
| Foreign | 0 | 42 | 42 | 0 | 0 | 63 | 63 | 0 |
| Other | 283 | 2,776 | 3,059 | 12 | 1,064 | 1,605 | 2,669 | 11 |
| **Other investments** | 0 | 15 | 15 | 0 | 0 | 15 | 15 | 0 |
| **Total** | 17,923 | 6,691 | 24,614 | 100 | 18,505 | 5,414 | 23,919 | 100 |

| | 31.12.16 | 31.12.15 |
|---|---|---|
| **Total fair value of plan assets** | 24,614 | 23,919 |
| *of which:*[2] | | |
| *Bank accounts at UBS AG* | *432* | *517* |
| *UBS AG debt instruments* | *5* | *5* |
| *UBS Group AG shares* | *47* | *38* |
| *Securities lent to UBS AG*[3] | *1,855* | *962* |
| *Property occupied by UBS AG* | *83* | *82* |
| *Derivative financial instruments, counterparty UBS AG*[3] | *(220)* | *(170)* |

1 The bond credit ratings are primarily based on Standard & Poor's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in the Standard & Poor's rating classification. 2 Bank accounts at UBS AG encompass accounts in the name of the Swiss pension fund. The other positions disclosed in the table encompass both direct investments in UBS AG instruments and indirect investments, i.e., those made through funds that the pension fund invests in. 3 Securities lent to UBS AG and derivative financial instruments are presented gross of any collateral. Securities lent to UBS AG were fully covered by collateral as of 31 December 2016 and 31 December 2015. Net of collateral, derivative financial instruments amounted to CHF 76 million as of 31 December 2016 (31 December 2015: negative CHF 90 million).

## Note 26 Pension and other post-employment benefit plans (continued)

### Composition and fair value of plan assets (continued)

**UK plan**

| | 31.12.16 | | | | 31.12.15 | | | |
|---|---|---|---|---|---|---|---|---|
| | Fair value | | | Plan asset allocation % | Fair value | | | Plan asset allocation % |
| *CHF million* | Quoted in an active market | Other | Total | | Quoted in an active market | Other | Total | |
| **Cash and cash equivalents** | 133 | 0 | 133 | 4 | 426 | 0 | 426 | 13 |
| **Bonds**[1] | | | | | | | | |
| Domestic, AAA to BBB– | 1,131 | 0 | 1,131 | 36 | 0 | 0 | 0 | 0 |
| Domestic, below BBB– | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Investment funds** | | | | | | | | |
| Equity | | | | | | | | |
| Domestic | 39 | 0 | 39 | 1 | 98 | 0 | 98 | 3 |
| Foreign | 984 | 0 | 984 | 31 | 1,080 | 0 | 1,080 | 32 |
| Bonds[1] | | | | | | | | |
| Domestic, AAA to BBB– | 500 | 28 | 528 | 17 | 1,305 | 0 | 1,305 | 38 |
| Domestic, below BBB– | 23 | 0 | 23 | 1 | 53 | 0 | 53 | 2 |
| Foreign, AAA to BBB– | 245 | 0 | 245 | 8 | 189 | 0 | 189 | 6 |
| Foreign, below BBB– | 39 | 0 | 39 | 1 | 31 | 0 | 31 | 1 |
| Real estate | | | | | | | | |
| Domestic | 39 | 72 | 111 | 4 | 46 | 68 | 115 | 3 |
| Other | (35) | 111 | 76 | 2 | (32) | 123 | 91 | 3 |
| **Other investments** | (144) | 10 | (134) | (4) | 6 | 7 | 13 | 0 |
| **Total fair value of plan assets** | 2,955 | 221 | 3,175 | 100 | 3,202 | 198 | 3,400 | 100 |

1 The bond credit ratings are primarily based on Standard & Poor's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in the Standard & Poor's rating classification.

## Note 26 Pension and other post-employment benefit plans (continued)

**Composition and fair value of plan assets (continued)**

**US plans**

| | 31.12.16 | | | | 31.12.15 | | | |
|---|---|---|---|---|---|---|---|---|
| | Fair value | | | Weighted average plan asset allocation % | Fair value | | | Weighted average plan asset allocation % |
| *CHF million* | Quoted in an active market | Other | Total | | Quoted in an active market | Other | Total | |
| **Cash and cash equivalents** | 75 | 0 | 75 | 7 | 52 | 0 | 52 | 5 |
| **Bonds**[1] | | | | | | | | |
| Domestic, AAA to BBB– | 158 | 0 | 158 | 14 | 56 | 0 | 56 | 6 |
| Domestic, below BBB– | 13 | 0 | 13 | 1 | 60 | 0 | 60 | 6 |
| Foreign, AAA to BBB– | 42 | 0 | 42 | 4 | 17 | 0 | 17 | 2 |
| Foreign, below BBB– | 1 | 0 | 1 | 0 | 6 | 0 | 6 | 1 |
| **Investment funds** | | | | | | | | |
| Equity | | | | | | | | |
| Domestic | 264 | 0 | 264 | 23 | 240 | 0 | 240 | 24 |
| Foreign | 248 | 0 | 248 | 22 | 240 | 0 | 240 | 24 |
| Bonds[1] | | | | | | | | |
| Domestic, AAA to BBB– | 218 | 0 | 218 | 19 | 134 | 0 | 134 | 13 |
| Domestic, below BBB– | 18 | 0 | 18 | 2 | 13 | 0 | 13 | 1 |
| Foreign, AAA to BBB– | 42 | 0 | 42 | 4 | 31 | 0 | 31 | 3 |
| Foreign, below BBB– | 5 | 0 | 5 | 0 | 3 | 0 | 3 | 0 |
| Real estate | | | | | | | | |
| Domestic | 0 | 11 | 11 | 1 | 0 | 12 | 12 | 1 |
| Other | 19 | 0 | 19 | 2 | 56 | 42 | 98 | 10 |
| **Insurance contracts** | 0 | 18 | 18 | 2 | 0 | 17 | 17 | 2 |
| **Asset-backed securities** | 8 | 0 | 8 | 1 | 14 | 0 | 14 | 1 |
| **Other investments** | 3 | 0 | 3 | 0 | 5 | 0 | 5 | 0 |
| **Total fair value of plan assets** | 1,115 | 29 | 1,144 | 100 | 926 | 70 | 997 | 100 |

1 The bond credit ratings are primarily based on Standard & Poor's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in the Standard & Poor's rating classification.

**Note 26 Pension and other post-employment benefit plans (continued)**

## b) Post-employment medical insurance plans

In the US and the UK, UBS AG offers post-employment medical benefits that contribute to the health care coverage of certain employees and their beneficiaries after retirement.

The UK post-employment medical plan is closed to new entrants. The post-employment medical benefits in the UK and the US cover all types of medical expenses. These plans are not prefunded plans, and costs are recognized as incurred. In the US, the retirees also contribute to the cost of the post-employment medical benefits.

The benefits expected to be paid by UBS AG to the post-employment medical insurance plans in 2017 are estimated to be CHF 6 million.

The table below provides an analysis of the movement in the net asset / liability recognized on the balance sheet for post-employment medical plans, as well as an analysis of amounts recognized in net profit and in *Other comprehensive income*.

**Post-employment medical insurance plans**

| *CHF million* | UK plan | | US plans | | Total | |
|---|---|---|---|---|---|---|
| For the year ended | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| Post-employment benefit obligation at the beginning of the year | 25 | 32 | 59 | 53 | 84 | 85 |
| Current service cost | 0 | 0 | 0 | 0 | 0 | 0 |
| Interest expense | 1 | 1 | 3 | 2 | 3 | 3 |
| Plan participant contributions | 0 | 0 | 2 | 2 | 2 | 2 |
| Remeasurements | 6 | (6) | 7 | 9 | 13 | 3 |
| *of which: actuarial (gains) / losses due to changes in demographic assumptions* | *1* | *2* | *(1)* | *2* | *0* | *4* |
| *of which: actuarial (gains) / losses due to changes in financial assumptions* | *5* | *(1)* | *1* | *(2)* | *6* | *(3)* |
| *of which: experience (gains) / losses*[1] | *0* | *(7)* | *6* | *9* | *6* | *2* |
| Benefit payments[2] | (1) | (1) | (7) | (8) | (8) | (10) |
| Foreign currency translation | (4) | (2) | 1 | 1 | (3) | (1) |
| **Post-employment benefit obligation at the end of the year** | 26 | 25 | 65 | 59 | 91 | 84 |
| *of which: amounts owing to active members* | *6* | *5* | *0* | *0* | *6* | *5* |
| *of which: amounts owing to deferred members* | *0* | *0* | *0* | *0* | *0* | *0* |
| *of which: amounts owing to retirees* | *21* | *20* | *65* | *59* | *86* | *79* |
| **Fair value of plan assets at the end of the year** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Net post-employment benefit asset / (liability)** | (26) | (25) | (65) | (59) | (91) | (84) |
| | | | | | | |
| **Analysis of amounts recognized in net profit** | | | | | | |
| Current service cost | 0 | 0 | 0 | 0 | 0 | 0 |
| Interest expense related to post-employment benefit obligation | 1 | 1 | 3 | 2 | 3 | 3 |
| **Net periodic expenses** | 1 | 1 | 3 | 2 | 4 | 4 |
| | | | | | | |
| **Analysis of amounts recognized in other comprehensive income (OCI)** | | | | | | |
| Remeasurement of post-employment benefit obligation | (6) | 6 | (7) | (9) | (13) | (3) |
| **Total gains / (losses) recognized in other comprehensive income, before tax** | (6) | 6 | (7) | (9) | (13) | (3) |

1 Experience (gains) / losses are a component of actuarial remeasurements of the post-employment benefit obligation that reflect the effects of differences between the previous actuarial assumptions and what has actually occurred. 2 Benefit payments are funded by employer contributions and plan participant contributions.

**Note 26 Pension and other post-employment benefit plans (continued)**

## Actuarial assumptions

The measurement of each medical insurance plan's post-employment benefit obligation considers different actuarial assumptions. On a country-by-country basis, the same discount rate is used for the calculation of the post-employment benefit obligation from medical insurance plans as for the DBO arising from pension plans. Changes in assumptions lead to volatility in the post-employment benefit obligation. The following principal actuarial assumptions are applied:

– Discount rate: similar to defined benefit pension plans, a decrease in the yield of high-quality corporate bonds increases the post-employment benefit obligation. Conversely, an increase in the yield of high-quality corporate bonds decreases the post-employment benefit obligation.
– Average health care cost trend rate: an increase in health care costs generally increases the post-employment benefit obligation.
– Life expectancy: as some plan participants have lifetime benefits under these plans, an increase in life expectancy increases the post-employment benefit obligation.

## Changes in actuarial assumptions

UBS AG regularly reviews the actuarial assumptions used in calculating its post-employment benefit obligations to determine their continuing relevance. In 2016 and in 2015, UBS AG enhanced methodologies and refined approaches used to estimate several actuarial assumptions. These improvements in estimates resulted in a net increase in the post-employment benefit obligation.

Principal actuarial assumptions used to determine post-employment benefit obligations at the end of the year were:

**Principal actuarial assumptions used[1]**

| | UK plan | | US plans[2] | |
|---|---|---|---|---|
| *In %* | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| Discount rate | 2.69 | 3.90 | 3.97 | 4.23 |
| Average health care cost trend rate – initial | 5.10 | 5.10 | 7.03 | 6.75 |
| Average health care cost trend rate – ultimate | 5.10 | 5.10 | 4.50 | 5.00 |

1 The assumptions for life expectancies are provided within Note 26a. 2 Represents weighted average assumptions across US plans.

## Sensitivity analysis of significant actuarial assumptions

The table below presents a sensitivity analysis for each significant actuarial assumption showing how the post-employment benefit obligation would have been affected by changes in the relevant actuarial assumption that were reasonably possible at the balance sheet date. Unforeseen circumstances may arise, which could result in variations that are outside the range of alternatives deemed reasonably possible. Caution should be used in extrapolating the sensitivities below to the overall impact on the post-employment benefit obligation, as the sensitivities may not be linear.

**Sensitivity analysis of significant actuarial assumptions[1]**

| Increase / (decrease) in post-employment benefit obligation | UK plan | | US plans | |
|---|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 |
| **Discount rate** | | | | |
| Increase by 50 basis points | (2) | (1) | (3) | (3) |
| Decrease by 50 basis points | 2 | 2 | 3 | 3 |
| **Average health care cost trend rate** | | | | |
| Increase by 100 basis points | 4 | 3 | 2 | 1 |
| Decrease by 100 basis points | (3) | (3) | (1) | (1) |
| **Life expectancy** | | | | |
| Increase in longevity by one additional year | 2 | 2 | 5 | 5 |

1 The sensitivity analyses are based on a change in one assumption while holding all other assumptions constant, so that interdependencies between the assumptions are excluded.

## c) Defined contribution plans

UBS AG sponsors a number of defined contribution plans in locations outside Switzerland. The locations with significant defined contribution plans are the US and the UK. Certain plans allow employees to make contributions and earn matching or other contributions from UBS AG. Employer contributions to defined contribution plans are recognized as an expense, which, for the years ended 31 December 2016, 2015 and 2014, amounted to CHF 236 million, CHF 239 million and CHF 244 million, respectively.

**Note 26 Pension and other post-employment benefit plans (continued)**

## d) Related-party disclosure

UBS AG is the principal provider of banking services for the pension fund of UBS AG in Switzerland. In this function, UBS AG is engaged to execute most of the pension fund's banking activities. These activities can include, but are not limited to, trading, securities lending and borrowing and derivative transactions. The non-Swiss UBS AG pension funds do not have a similar banking relationship with UBS AG.

The bank leases certain properties that are owned by the Swiss pension fund. As of 31 December 2016, the minimum commitment toward the Swiss pension fund under the related leases is approximately CHF 11 million (31 December 2015: CHF 11 million).

→ **Refer to the "Composition and fair value of plan assets" table in Note 26a for more information on fair value of investments in UBS AG instruments held by the Swiss pension fund**

The following amounts have been received or paid by UBS AG from and to the pension and other post-employment benefit plans located in Switzerland, the UK and the US in respect of these banking activities and arrangements.

**Related-party disclosure**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| **Received by UBS AG** | | | |
| Fees | 36 | 33 | 33 |
| **Paid by UBS AG** | | | |
| Rent | 4 | 5 | 6 |
| Interest | (1) | (1) | 0 |
| Dividends and capital repayments | 15 | 14 | 4 |

The transaction volumes in UBS Group AG shares and UBS AG debt instruments and the balances of UBS Group AG shares held as of 31 December were:

**Transaction volumes – UBS Group AG shares and UBS AG debt instruments**

| | For the year ended | |
|---|---|---|
| | 31.12.16 | 31.12.15 |
| **Financial instruments bought by pension funds** | | |
| UBS Group AG shares (in thousands of shares) | 2,427 | 1,544 |
| UBS AG debt instruments (par values, CHF million) | 0 | 3 |
| **Financial instruments sold by pension funds or matured** | | |
| UBS Group AG shares (in thousands of shares) | 1,618 | 2,255 |
| UBS AG debt instruments (par values, CHF million) | 0 | 4 |

**UBS Group AG shares held by pension and other post-employment benefit plans**

| | 31.12.16 | 31.12.15 |
|---|---|---|
| Number of shares (in thousands of shares) | 18,363 | 17,737 |
| Fair value (CHF million) | 293 | 344 |

## Note 27 Equity participation and other compensation plans

### a) Plans offered

The UBS Group has several equity participation and other compensation plans to align the interests of Group Executive Board (GEB) members, Key Risk Takers and other employees with the interests of investors while continuously meeting regulatory requirements. This Note provides a description of the most significant plans offered by the Group which relate to the performance year 2016 (awards granted in 2017) and those from prior years that were partly expensed in 2016.

→ **Refer to Note 1a item 6 for a description of the accounting policy related to equity participation and other compensation plans**

#### Mandatory share-based compensation plans

Equity Ownership Plan (EOP):
The EOP is a mandatory share-based compensation plan for all employees with total compensation greater than CHF/USD 300,000. These employees receive a portion of their annual performance-related compensation above the threshold in the form of notional shares. Furthermore, notional shares granted to GEB members, Key Risk Takers, Group Managing Directors (GMDs) or employees whose incentive awards exceed a certain threshold, are subject to performance conditions. These performance conditions are based on the Group's return on tangible equity and the divisional return on attributed equity (for Corporate Center employees, the combined return on attributed equity of all business divisions). Certain awards, such as replacement awards issued outside the normal performance year cycle, may take the form of deferred cash under the EOP plan rules.

Notional shares represent a promise to receive UBS shares at vesting and do not carry voting rights during the vesting period. Notional shares granted before February 2014 have no rights to dividends, whereas awards granted since February 2014 carry a dividend equivalent which may be paid in notional shares or cash and which vests on the same terms and conditions as the awards. Awards are settled by delivering UBS shares at vesting, except in jurisdictions where this is not permitted for legal or tax reasons. EOP awards generally vest in equal installments after two and three years following grant (for GEB members, generally after three, four and five years). The awards are generally forfeitable upon, among other circumstances, voluntary termination of employment with UBS.

Senior Executive Equity Ownership Plan (SEEOP):
Up to February 2012, GEB members and selected senior executives received a portion of their mandatory deferral in UBS shares or notional shares, which vested in equal installments over a five-year vesting period and were forfeitable if certain conditions had not been met. The employee's business division or the Group as a whole had to be profitable in the financial year preceding scheduled vesting. Awards granted under SEEOP are settled by delivering UBS shares at vesting. No SEEOP awards have been granted since 2012.

Role-based allowances (RBAs):
Certain employees of EU regulated entities may receive an RBA in addition to their base salary. This allowance reflects the market value of a specific role and is only paid as long as the employee is within such a role. RBAs are offered in line with market practice and are generally paid in cash. In the UK, RBAs are partially awarded in cash and above a threshold in blocked UBS shares. Such shares will be unblocked in equal installments after two and three years. The compensation expense is recognized in the year of grant.

#### Mandatory deferred cash compensation plans

Deferred Contingent Capital Plan (DCCP):
The DCCP is a mandatory deferred cash compensation plan for all employees with total compensation greater than CHF/USD 300,000. DCCP awards granted up to January 2015 represent a right to receive a cash payment at vesting. For awards granted since February 2015, DCCP takes the form of notional additional tier 1 (AT1) capital instruments, which may be settled at the discretion of UBS in the form of a cash payment or a marketable AT1 capital instrument. Awards vest in full after five years unless there is a trigger or viability event. Awards granted under the DCCP are written down if UBS's common equity tier 1 capital ratio falls below 10% for GEB members and below 7% for all other employees. DCCP awards are also forfeited if a viability event occurs, that is, if FINMA provides a written notice to UBS that the DCCP awards must be written down to prevent an insolvency, bankruptcy or failure of UBS, or if UBS receives a commitment of extraordinary support from the public sector that is necessary to prevent such an event. Additionally, GEB members forfeit 20% of their award for each year during the vesting period in which UBS does not achieve an adjusted profit before tax. For awards granted up to January 2015, interest on the awards is paid annually, provided that UBS achieved an adjusted profit before tax in the preceding year. For awards granted since February 2015, interest payments are discretionary. The awards are generally forfeitable upon, among other circumstances, voluntary termination of employment with UBS.

Long-Term Deferred Retention Senior Incentive Scheme (LTDRSIS):
Awards under the LTDRSIS were granted to employees in Australia up to and including 2014 and represent a profit share amount based on the profitability of the Australian business. Awards vest after three years and include an arrangement which allows for unpaid installments to be reduced if the business records a loss for the calendar year preceding vesting. The awards are generally forfeitable upon voluntary termination of employment with UBS.

Asset Management EOP:
In order to align deferred compensation of certain Asset Management employees with the performance of the funds they manage, EOP awards are granted to such employees in the form of cash-settled notional funds. The amount delivered depends on the value of the underlying investment funds at the time of vesting. The awards are generally forfeitable upon, among other circumstances, voluntary termination of employment with UBS.

### Wealth Management Americas financial advisor compensation

Financial advisor compensation plans generally provide for cash payments and deferred awards that are formula driven and fluctuate in proportion to the level of business activity.

UBS also may enter into compensation commitments with certain new financial advisors, primarily as a recruitment incentive and to incentivize certain eligible active financial advisors to achieve specified revenue production and other performance conditions. The compensation may be earned and paid to the employee during a period of continued employment and may be forfeited under certain circumstances.

GrowthPlus:
GrowthPlus is a program for selected financial advisors whose revenue production and length of service exceed defined thresholds from 2010 through 2017. Compensation arrangements were granted in 2010, 2011 and 2015, with additional arrangements expected to be issued in 2018. The awards are distributed over seven years, with the exception of 2018 arrangements which will be distributed over five years.

PartnerPlus:
PartnerPlus is a mandatory deferred cash compensation plan for certain eligible financial advisors. Awards (UBS AG company contributions) are based on a predefined formula during the performance year. Participants are also allowed to voluntarily contribute additional amounts otherwise payable during the year, up to a certain percentage of their pay, which vest upon contribution. Company contributions and voluntary contributions are credited with interest in accordance with the terms of the plan. Rather than being credited with interest, a participant may elect to have voluntary contributions, along with vested company contributions, credited with notional earnings based on the performance of various mutual funds. Company contributions and interest on both company and voluntary contributions ratably vest in 20% installments six to ten years following grant date. Company contributions and interest on notional earnings on both company and voluntary contributions are forfeitable under certain circumstances.

### Other share-based compensation plans

Equity Plus Plan (Equity Plus):
Equity Plus is a voluntary plan that provides eligible employees with the opportunity to purchase UBS shares at market value and receive one notional share for every three shares purchased, up to a maximum annual limit. Share purchases may be made annually from the performance award and / or monthly through deductions from salary. If the shares purchased are held for three years, and in general if the employee remains in employment, the notional shares vest. For notional shares granted since April 2014, employees are entitled to receive a dividend equivalent, which may be paid in notional shares and / or cash.

Key Employee Stock Appreciation Rights Plan (KESAP) and Key Employee Stock Option Plan (KESOP):
Until 2009, key and high-potential employees were granted discretionary share-settled stock appreciation rights (SARs) or options on UBS shares with a strike price not less than the market value of a UBS share on the date of grant. A SAR gives employees the right to receive a number of UBS shares equal to the value of any market price increase of a UBS share between the grant date and the exercise date. One option entitles the holder to acquire one registered UBS share at the option's strike price. SARs and options are settled by delivering UBS shares, except in jurisdictions where this is not permitted for legal reasons. These awards are generally forfeitable upon termination of employment with UBS. No options or SARs awards have been granted since 2009.

## Note 27 Equity participation and other compensation plans (continued)

### b) Effect on the income statement

Effect on the income statement for the financial year and future periods

The table below provides information on compensation expenses related to performance awards and other variable compensation, including financial advisor compensation in Wealth Management Americas, recognized for the financial year ended 31 December 2016 and deferred compensation expense that will be recognized in the income statement for 2017 and later. The deferred compensation expense in the table also includes vested and unvested awards, which relate to the performance year 2016. The majority of them were granted in February 2017. The total compensation expense for unvested share-based awards granted up to 31 December 2016 will be recognized in future periods over a weighted average period of 2.0 years.

**Personnel expenses – recognized and deferred[1]**

| | Personnel expenses for the year ended 2016 | | | Personnel expenses deferred to 2017 and later | | |
|---|---|---|---|---|---|---|
| *CHF million* | Expenses relating to awards for 2016 | Expenses relating to awards for prior years | Total | Relating to awards for 2016 | Relating to awards for prior years | Total |
| **Performance awards** | | | | | | |
| Cash performance awards | 1,817 | (42) | 1,775 | 0 | 0 | 0 |
| Deferred Contingent Capital Plan | 133 | 295 | 428 | 266 | 468 | 735 |
| Deferred cash plans | 0 | 6 | 6 | 0 | 5 | 5 |
| Equity Ownership Plan – UBS shares | 214 | 485 | 699 | 372 | 356 | 727 |
| Equity Ownership Plan – notional funds | 26 | 39 | 65 | 34 | 27 | 60 |
| **Total performance awards** | **2,191** | **781** | **2,972** | **671** | **856** | **1,527** |
| **Variable compensation** | | | | | | |
| Variable compensation – other | 266 | 151 | 418[2] | 162[3] | 301[4] | 463 |
| Financial advisor compensation – cash payments | 2,506 | 0 | 2,506 | 0 | 0 | 0 |
| Compensation commitments with recruited financial advisors | 43 | 756 | 799 | 607 | 2,120 | 2,727 |
| GrowthPlus and other deferral plans | 112 | 199 | 311 | 139 | 773 | 912 |
| UBS share plans | 33 | 48 | 81 | 57 | 120 | 177 |
| Wealth Management Americas: Financial advisor compensation[5] | 2,695 | 1,002 | 3,697 | 804 | 3,013 | 3,816 |
| **Total** | **5,152** | **1,935** | **7,087** | **1,637** | **4,169** | **5,806** |

1 In 2016, total personnel expenses related to share-based compensation were CHF 910 million, which related to performance awards (CHF 699 million), other variable compensation (CHF 40 million), role-based allowances (CHF 39 million), Wealth Management Americas financial advisor compensation (CHF 81 million), the Equity Plus Plan (CHF 24 million) and social security costs (CHF 27 million). Total personnel expenses related to share-based equity-settled compensation excluding social security were CHF 861 million. 2 Includes replacement payments of CHF 86 million (of which CHF 62 million related to prior years), forfeiture credits of CHF 73 million (all related to prior years), severance payments of CHF 217 million (all related to 2016) and retention plan and other payments of CHF 188 million (of which CHF 163 million related to prior years). 3 Includes DCCP interest expense of CHF 98 million for DCCP awards 2016 (granted in 2017). 4 Includes DCCP interest expense of CHF 243 million for DCCP awards 2015, 2014 and 2013 (granted in 2016, 2015 and 2014, respectively). 5 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated based on financial advisor productivity, firm tenure, assets and other variables. It also includes charges related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. Amounts reflected as deferred expenses represent the maximum deferred exposure as of the balance sheet date.

## Note 27 Equity participation and other compensation plans (continued)

**Personnel expenses – recognized and deferred[1]**

| | Personnel expenses for the year ended 2015 | | | Personnel expenses deferred to 2016 and later | | |
|---|---|---|---|---|---|---|
| *CHF million* | Expenses relating to awards for 2015 | Expenses relating to awards for prior years | Total | Relating to awards for 2015 | Relating to awards for prior years | Total |
| **Performance awards** | | | | | | |
| Cash performance awards | 2,073 | (94) | 1,980 | 0 | 0 | 0 |
| Deferred Contingent Capital Plan | 172 | 258 | 429 | 343 | 446 | 789 |
| Deferred cash plans | 0 | 12 | 12 | 0 | 3 | 3 |
| Equity Ownership Plan – UBS shares | 261 | 461 | 722 | 524 | 338 | 861 |
| Equity Ownership Plan – notional funds | 28 | 38 | 67 | 34 | 35 | 69 |
| **Total performance awards** | **2,535** | **675** | **3,210** | **900** | **822** | **1,722** |
| **Variable compensation** | | | | | | |
| Variable compensation – other | 184 | 162 | 346[2] | 248[3] | 293[4] | 541 |
| Financial advisor compensation – cash payments | 2,460 | 0 | 2,460 | 0 | 0 | 0 |
| Compensation commitments with recruited financial advisors | 43 | 692 | 735 | 940 | 1,899 | 2,839 |
| GrowthPlus and other deferral plans | 132 | 142 | 275 | 710 | 456 | 1,166 |
| UBS share plans | 37 | 45 | 82 | 66 | 115 | 182 |
| Wealth Management Americas: Financial advisor compensation[5] | 2,673 | 879 | 3,552 | 1,716 | 2,470 | 4,186 |
| **Total** | **5,391** | **1,716** | **7,108** | **2,864** | **3,585** | **6,449** |

1 In 2015, total personnel expenses related to share-based compensation were CHF 966 million, which related to performance awards (CHF 722 million), other variable compensation (CHF 54 million), role-based allowances (CHF 26 million), Wealth Management Americas financial advisor compensation (CHF 82 million), the Equity Plus Plan (CHF 21 million) and social security costs (CHF 61 million). Total personnel expenses related to share-based equity-settled compensation excluding social security were CHF 858 million. 2 Includes replacement payments of CHF 76 million (of which CHF 65 million related to prior years), forfeiture credits of CHF 86 million (all related to prior years), severance payments of CHF 157 million (all related to 2015) and retention plan and other payments of CHF 198 million (of which CHF 183 million related to prior years). 3 Includes DCCP interest expense of CHF 160 million for DCCP awards 2015 (granted in 2016). 4 Includes DCCP interest expense of CHF 200 million for DCCP awards 2014, 2013 and 2012 (granted in 2015, 2014 and 2013, respectively). 5 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated based on financial advisor productivity, firm tenure, assets and other variables. It also includes charges related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. Amounts reflected as deferred expenses represent the maximum deferred exposure as of the balance sheet date.

## Note 27 Equity participation and other compensation plans (continued)

**Personnel expenses – recognized and deferred[1]**

| | Personnel expenses for the year ended 2014 | | | Personnel expenses deferred to 2015 and later | | |
|---|---|---|---|---|---|---|
| *CHF million* | Expenses relating to awards for 2014 | Expenses relating to awards for prior years | Total | Relating to awards for 2014 | Relating to awards for prior years | Total |
| **Performance awards** | | | | | | |
| Cash performance awards | 1,822 | (108) | 1,714 | 0 | 0 | 0 |
| Deferred Contingent Capital Plan | 155 | 194 | 349 | 312 | 386 | 698 |
| Deferred cash plans | 0 | 12 | 12 | 0 | 8 | 8 |
| Equity Ownership Plan – UBS shares | 215 | 444 | 659 | 459 | 367 | 826 |
| Incentive Performance Plan | 0 | 21 | 21 | 0 | 0 | 0 |
| Total UBS share plans | 215 | 465 | 680 | 459 | 367 | 826 |
| Equity Ownership Plan – notional funds | 24 | 41 | 65 | 36 | 33 | 69 |
| **Total performance awards** | **2,216** | **604** | **2,820** | **807** | **794** | **1,601** |
| **Variable compensation** | | | | | | |
| Variable compensation – other | 260 | 206 | 466[2] | 307[3] | 340[4] | 647 |
| Financial advisor compensation – cash payments | 2,396 | 0 | 2,396 | 0 | 0 | 0 |
| Compensation commitments with recruited financial advisors | 39 | 636 | 675 | 524 | 2,058 | 2,582 |
| GrowthPlus and other deferral plans | 81 | 153 | 234 | 189 | 528 | 717 |
| UBS share plans | 23 | 57 | 80 | 41 | 143 | 184 |
| Wealth Management Americas: Financial advisor compensation[5] | 2,539 | 846 | 3,385 | 754 | 2,729 | 3,483 |
| **Total** | **5,015** | **1,656** | **6,671** | **1,868** | **3,863** | **5,731** |

1 In 2014, total personnel expenses related to share-based compensation were CHF 942 million, which related to performance awards (CHF 680 million), other variable compensation (CHF 113 million), role-based allowances (CHF 9 million), Wealth Management Americas financial advisor compensation (CHF 80 million), the Equity Plus Plan (CHF 19 million) and social security costs (CHF 42 million). Total personnel expenses related to share-based equity-settled compensation excluding social security were CHF 909 million. 2 Includes replacement payments of CHF 81 million (of which CHF 70 million related to prior years), forfeiture credits of CHF 70 million (all related to prior years), severance payments of CHF 162 million (all related to 2014) and retention plan and other payments of CHF 292 million (of which CHF 206 million related to prior years). 3 Includes DCCP interest expense of CHF 121 million for DCCP awards 2014 (granted in 2015). 4 Includes DCCP interest expense of CHF 161 million for DCCP awards 2013 and 2012 (granted in 2014 and 2013, respectively). 5 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated based on financial advisor productivity, firm tenure, assets and other variables. It also includes charges related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. Amounts reflected as deferred expenses represent the maximum deferred exposure as of the balance sheet date.

**Note 27 Equity participation and other compensation plans (continued)**

## c) Movements during the year

### UBS share and performance share awards

Movements in UBS share and notional share awards were:

**UBS share awards**

| | Number of shares 2016 | Weighted average grant date fair value (CHF) | Number of shares 2015 | Weighted average grant date fair value (CHF) |
|---|---|---|---|---|
| Outstanding, at the beginning of the year | 427,443 | 18 | 467,848 | 15 |
| Shares awarded during the year | 199,755 | 13 | 259,334 | 17 |
| Distributions during the year | (115,014) | 18 | (279,415) | 15 |
| Forfeited during the year | 0 | 0 | (20,323) | 19 |
| Outstanding, at the end of the year | 512,185 | 16 | 427,443 | 18 |
| *of which: shares vested for accounting purposes* | *189,953* | | *138,908* | |

The fair value of shares that became legally vested, as all conditions had been met, and were distributed during the years ended 2016 and 2015 was CHF 2 million and CHF 5 million, respectively.

## d) Valuation

### UBS share awards

UBS AG measures compensation expense based on the average market price of the UBS share on the grant date as quoted on the SIX Swiss Exchange, taking into consideration post-vesting sale and hedge restrictions, non-vesting conditions and market conditions, where applicable. The fair value of the share awards subject to post-vesting sale and hedge restrictions is discounted on the basis of the duration of the post-vesting restriction and is referenced to the cost of purchasing an at-the-money European put option for the term of the transfer restriction. The grant date fair value of notional shares without dividend entitlements also includes a deduction for the present value of future expected dividends to be paid between the grant date and distribution.

## Note 28 Interests in subsidiaries and other entities

### a) Interests in subsidiaries

UBS AG defines its significant subsidiaries as those entities that, either individually or in aggregate, contribute significantly to UBS AG's financial position or results of operations, based on a number of criteria, including the subsidiaries' equity and their contribution to UBS AG's total assets and profit or loss before tax, in accordance with the requirements set by IFRS 12, Swiss regulations and the rules of the US Securities and Exchange Commission (SEC).

#### Individually significant subsidiaries

The two tables below list UBS AG's individually significant subsidiaries as of 31 December 2016. Unless otherwise stated, the subsidiaries listed below have share capital consisting solely of ordinary shares, which are held fully by UBS AG, and the proportion of ownership interest held is equal to the voting rights held by UBS AG.

The country where the respective registered office is located is also the principal place of business. UBS Europe SE has branches and offices in a number of EU member states, including branches in Germany, Italy, Luxembourg and Spain.

**Individually significant subsidiaries as of 31 December 2016**

| Company | Registered office | Primary business division | Share capital in million | | Equity interest accumulated in % |
|---|---|---|---|---|---|
| UBS Americas Holding LLC | Wilmington, Delaware, USA | Corporate Center | USD | 2,250.0[1] | 100.0 |
| UBS Asset Management AG | Zurich, Switzerland | Asset Management | CHF | 43.2 | 100.0 |
| UBS Bank USA | Salt Lake City, Utah, USA | Wealth Management Americas | USD | 0.0 | 100.0 |
| UBS Europe SE | Frankfurt, Germany | Wealth Management | EUR | 176.0 | 100.0 |
| UBS Financial Services Inc. | Wilmington, Delaware, USA | Wealth Management Americas | USD | 0.0 | 100.0 |
| UBS Limited | London, United Kingdom | Investment Bank | GBP | 226.6 | 100.0 |
| UBS Securities LLC | Wilmington, Delaware, USA | Investment Bank | USD | 1,283.1[2] | 100.0 |
| UBS Switzerland AG | Zurich, Switzerland | Personal & Corporate Banking | CHF | 10.0 | 100.0 |

1 Comprised of common share capital of USD 1,000 and non-voting preferred share capital of USD 2,250,000,000. 2 Comprised of common share capital of USD 100,000 and non-voting preferred share capital of USD 1,283,000,000.

During 2016, the majority of the operating subsidiaries of Asset Management were transferred to UBS Asset Management AG to create a holding structure spanning the division's global activities outside the US. Also in 2016, UBS AG's direct Wealth Management subsidiaries UBS (Italia) SpA, UBS (Luxembourg) S.A. (including its branches in Austria, Denmark and Sweden), UBS Bank S.A. (Madrid) and UBS Bank (Netherlands) B.V. were merged into UBS Deutschland AG, which was renamed to UBS Europe SE and is headquartered in Frankfurt, Germany.

UBS Americas Holding LLC, UBS Asset Management AG, UBS Europe SE, UBS Limited and UBS Switzerland AG are fully held by UBS AG. UBS Bank USA, UBS Financial Services Inc. and UBS Securities LLC are fully held, directly or indirectly, by UBS Americas Holding LLC.

## Note 28 Interests in subsidiaries and other entities (continued)

### Other subsidiaries

The table below lists other subsidiaries of UBS AG that are not individually significant but that contribute to UBS AG's total assets and aggregated profit before tax thresholds and are thereby disclosed in accordance with the requirements set by the SEC.

**Other subsidiaries as of 31 December 2016**

| Company | Registered office | Primary business division | Share capital in million | | Equity interest accumulated in % |
|---|---|---|---|---|---|
| UBS Americas Inc. | Wilmington, Delaware, USA | Corporate Center | USD | 0.0 | 100.0 |
| UBS Asset Management (Americas) Inc. | Wilmington, Delaware, USA | Asset Management | USD | 0.0 | 100.0 |
| UBS Asset Management (Australia) Ltd | Sydney, Australia | Asset Management | AUD | 20.1[1] | 100.0 |
| UBS Asset Management (Deutschland) GmbH | Frankfurt, Germany | Asset Management | EUR | 7.7 | 100.0 |
| UBS Asset Management (Hong Kong) Limited | Hong Kong, Hong Kong | Asset Management | HKD | 150.0 | 100.0 |
| UBS Asset Management (Japan) Ltd | Tokyo, Japan | Asset Management | JPY | 2,200.0 | 100.0 |
| UBS Asset Management (Singapore) Ltd | Singapore, Singapore | Asset Management | SGD | 4.0 | 100.0 |
| UBS Asset Management (UK) Ltd | London, United Kingdom | Asset Management | GBP | 125.0 | 100.0 |
| UBS Business Solutions US LLC | Wilmington, Delaware, USA | Corporate Center | USD | 0.0 | 100.0 |
| UBS Card Center AG | Glattbrugg, Switzerland | Personal & Corporate Banking | CHF | 0.1 | 100.0 |
| UBS Credit Corp. | Wilmington, Delaware, USA | Wealth Management Americas | USD | 0.0 | 100.0 |
| UBS Fund Advisor, L.L.C. | Wilmington, Delaware, USA | Wealth Management Americas | USD | 0.0 | 100.0 |
| UBS Fund Management (Luxembourg) S.A. | Luxembourg, Luxembourg | Asset Management | EUR | 13.0 | 100.0 |
| UBS Fund Management (Switzerland) AG | Basel, Switzerland | Asset Management | CHF | 1.0 | 100.0 |
| UBS Hedge Fund Solutions LLC | Wilmington, Delaware, USA | Asset Management | USD | 0.1 | 100.0 |
| UBS O'Connor LLC | Dover, Delaware, USA | Asset Management | USD | 1.0 | 100.0 |
| UBS Real Estate Securities Inc. | Wilmington, Delaware, USA | Investment Bank | USD | 0.0 | 100.0 |
| UBS Realty Investors LLC | Boston, Massachusetts, USA | Asset Management | USD | 9.0 | 100.0 |
| UBS Securities (Thailand) Ltd | Bangkok, Thailand | Investment Bank | THB | 500.0 | 100.0 |
| UBS Securities Australia Ltd | Sydney, Australia | Investment Bank | AUD | 0.3[1] | 100.0 |
| UBS Securities India Private Limited | Mumbai, India | Investment Bank | INR | 140.0 | 100.0 |
| UBS Securities Japan Co., Ltd. | Tokyo, Japan | Investment Bank | JPY | 56,450.0 | 100.0 |
| UBS Securities Pte. Ltd. | Singapore, Singapore | Investment Bank | SGD | 420.4 | 100.0 |
| UBS Services LLC | Wilmington, Delaware, USA | Corporate Center | USD | 0.0 | 100.0 |
| UBS South Africa (Proprietary) Limited | Sandton, South Africa | Investment Bank | ZAR | 0.0 | 100.0 |
| UBS UK Properties Limited | London, United Kingdom | Corporate Center | GBP | 132.0 | 100.0 |
| OOO UBS Bank | Moscow, Russia | Investment Bank | RUB | 3,450.0 | 100.0 |
| Topcard Service AG | Glattbrugg, Switzerland | Personal & Corporate Banking | CHF | 0.2 | 100.0 |

1 Includes a nominal amount relating to redeemable preference shares.

In 2016, UBS Italia SIM SpA, a subsidiary conducting activities of the Investment Bank, was converted to a branch of UBS Limited, London, via a cross-border merger transaction.

**Note 28 Interests in subsidiaries and other entities (continued)**

### Changes in consolidation scope

In 2016, no significant subsidiaries were added to or removed from the scope of consolidation as a result of acquisitions or disposals.

### Non-controlling interests

As of 31 December 2016 and 31 December 2015, non-controlling interests were not material to UBS AG. In addition, as of these dates there were no significant restrictions on UBS AG's ability to access or use the assets and settle the liabilities of subsidiaries resulting from protective rights of non-controlling interests.

### Consolidated structured entities

UBS AG consolidates a structured entity (SE) if it has power over the relevant activities of the entity, exposure to variable returns and the ability to use its power to affect its returns. Consolidated SEs include certain investment funds, securitization vehicles and client investment vehicles. UBS has no individually significant subsidiaries that are SEs.

Investment fund SEs are generally consolidated when UBS AG's aggregate exposure combined with its decision-making rights indicate the ability to use such power in a principal capacity. Typically UBS AG will have decision-making rights as fund manager, earning a management fee, and will provide seed capital at the inception of the fund or hold a significant percentage of the fund units. Where other investors do not have the substantive ability to remove UBS as decision maker, UBS AG is deemed to have control and therefore consolidates the fund.

Securitization SEs are generally consolidated when UBS AG holds a significant percentage of the asset-backed securities issued by the SE and has the power to remove without cause the servicer of the asset portfolio.

Client investment SEs are generally consolidated when UBS AG has a substantive liquidation right over the SE or a decision right over the assets held by the SE and has exposure to variable returns through derivatives traded with the SE or holding notes issued by the SE.

In 2016 and 2015, UBS AG has not entered into any contractual obligation that could require UBS AG to provide financial support to consolidated SEs. In addition, UBS AG did not provide support, financial or otherwise, to a consolidated SE when UBS AG was not contractually obligated to do so, nor has UBS AG an intention to do so in the future. Further, UBS AG did not provide support, financial or otherwise, to a previously unconsolidated SE that resulted in UBS AG controlling the SE during the reporting period.

## Note 28 Interests in subsidiaries and other entities (continued)

### b) Interests in associates and joint ventures

As of 31 December 2016 and 2015, no associate or joint venture was individually material to UBS AG. In addition, there were no significant restrictions on the ability of associates or joint ventures to transfer funds to UBS AG or its subsidiaries in the form of cash dividends or to repay loans or advances made. There were no quoted market prices for any associates or joint ventures of UBS AG.

**Investments in associates and joint ventures**

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Carrying amount at the beginning of the year | 954 | 927 |
| Additions | 3 | 12 |
| Disposals | (2) | (2) |
| Share of comprehensive income | 82 | 151 |
| *of which: share of net profit*[1,2] | *106* | *169* |
| *of which: share of other comprehensive income*[3] | *(24)* | *(18)* |
| Dividends received | (50) | (114) |
| Foreign currency translation | (23) | (20) |
| **Carrying amount at the end of the year** | **963** | **954** |
| *of which: associates* | *934* | *925* |
| *of which: UBS Securities Co. Limited, Beijing*[4] | *392* | *411* |
| *of which: SIX Group AG, Zurich*[5] | *426* | *413* |
| *of which: other associates* | *116* | *102* |
| *of which: joint ventures* | *29* | *29* |

1 For 2016, consists of CHF 94 million from associates and CHF 12 million from joint ventures. For 2015, consists of CHF 158 million from associates and CHF 11 million from joint ventures. 2 In 2015, the SIX Group sold its stake in STOXX Ltd and Indexium Ltd. The UBS share of the resulting gain on sale was CHF 81 million. 3 For 2016, consists of negative CHF 25 million from associates and CHF 0 million from joint ventures. For 2015, consists of negative CHF 18 million from associates and CHF 0 million from joint ventures. 4 UBS AG's equity interest amounts to 24.99%. 5 UBS AG's equity interest amounts to 17.31%. UBS AG is represented on the Board of Directors.

## Note 28 Interests in subsidiaries and other entities (continued)

### c) Interests in unconsolidated structured entities

During 2016, UBS AG sponsored the creation of various SEs and interacted with a number of non-sponsored SEs, including securitization vehicles, client vehicles as well as certain investment funds, which UBS did not consolidate as of 31 December 2016 because it did not control these entities.

The table below presents UBS AG's interests in and maximum exposure to loss from unconsolidated SEs as well as the total assets held by the SEs in which UBS had an interest as of year-end, except for investment funds sponsored by third parties, for which the carrying value of UBS's interest as of year-end has been disclosed.

**Interests in unconsolidated structured entities**

| | 31.12.16 | | | | |
|---|---|---|---|---|---|
| *CHF million, except where indicated* | Securitization vehicles | Client vehicles | Investment funds | Total | Maximum exposure to loss[1] |
| Trading portfolio assets | 634 | 394 | 6,215 | 7,243 | 7,243 |
| Positive replacement values | 40 | 76 | 101 | 217 | 217 |
| Loans | 0 | 0 | 79 | 79 | 79 |
| Financial assets designated at fair value | 103 | 83[2] | 0 | 186 | 1,765 |
| Financial assets available for sale | 0 | 3,381 | 58 | 3,439 | 3,439 |
| Other assets | 289 | 37[2] | 0 | 327 | 1,490 |
| **Total assets** | 1,066[3] | 3,971 | 6,454 | 11,491 | |
| Negative replacement values | 33[4] | 346 | 67 | 446 | 90 |
| **Total liabilities** | 33 | 346 | 67 | 446 | |
| **Assets held by the unconsolidated structured entities in which UBS had an interest (CHF billion)** | 72[5] | 102[6] | 334[7] | | |

| | 31.12.15 | | | | |
|---|---|---|---|---|---|
| *CHF million, except where indicated* | Securitization vehicles | Client vehicles | Investment funds | Total | Maximum exposure to loss[1] |
| Trading portfolio assets | 1,060 | 463 | 6,102 | 7,624 | 7,624 |
| Positive replacement values | 41 | 101 | 57 | 200 | 200 |
| Loans | 0 | 0 | 101 | 101 | 101 |
| Financial assets designated at fair value | 0 | 97[2] | 0 | 97 | 1,636 |
| Financial assets available for sale | 0 | 3,396 | 102 | 3,498 | 3,498 |
| Other assets | 0 | 45[2] | 0 | 45 | 937 |
| **Total assets** | 1,101[3] | 4,102 | 6,362 | 11,565 | |
| Negative replacement values | 30[4] | 631 | 0 | 661 | 19 |
| **Total liabilities** | 30 | 631 | 0 | 661 | |
| **Assets held by the unconsolidated structured entities in which UBS had an interest (CHF billion)** | 141[5] | 43[6] | 320[7] | | |

1 For purposes of this disclosure, maximum exposure to loss amounts do not consider the risk-reducing effects of collateral or other credit enhancements. 2 Represents the carrying value of loan commitments, both designated at fair value and held at amortized cost. The maximum exposure to loss for these instruments is equal to the notional amount. 3 As of 31 December 2016, CHF 1.0 billion of the CHF 1.1 billion (31 December 2015: CHF 0.9 billion of the CHF 1.1 billion) was held in Corporate Center – Non-core and Legacy Portfolio. 4 Comprised of credit default swap (CDS) liabilities and other swap liabilities. The maximum exposure to loss for CDS is equal to the sum of the negative carrying value and the notional amount. For other swap liabilities, no maximum exposure to loss is reported. 5 Represents principal amount outstanding. 6 Represents the market value of total assets. 7 Represents the net asset value of the investment funds sponsored by UBS and the carrying value of UBS's interests in the investment funds not sponsored by UBS.

## Note 28 Interests in subsidiaries and other entities (continued)

UBS AG retains or purchases interests in unconsolidated SEs in the form of direct investments, financing, guarantees, letters of credit, derivatives and through management contracts.

UBS AG's maximum exposure to loss is generally equal to the carrying value of UBS AG's interest in the SE, with the exception of guarantees, letters of credit and credit derivatives for which the contract's notional amount, adjusted for losses already incurred, represents the maximum loss that UBS AG is exposed to. In addition, the current fair value of derivative swap instruments with a positive replacement value only, such as total return swaps, is presented as the maximum exposure to loss. Risk exposure for these swap instruments could change over time with market movements.

The maximum exposure to loss disclosed in the table on the previous page does not reflect UBS AG's risk management activities, including effects from financial instruments that may be used to economically hedge the risks inherent in the unconsolidated SE or the risk-reducing effects of collateral or other credit enhancements.

In 2016 and 2015, UBS AG did not provide support, financial or otherwise, to an unconsolidated SE when not contractually obligated to do so, nor has UBS AG an intention to do so in the future.

In 2016 and 2015, income and expenses from interests in unconsolidated SEs primarily resulted from mark-to-market movements recognized in net trading income, which have generally been hedged with other financial instruments, as well as fee and commission income received from UBS sponsored funds.

*Interests in securitization vehicles*

As of 31 December 2016 and 31 December 2015, UBS AG held interests, both retained and acquired, in various securitization vehicles. As of 31 December 2016, a majority of UBS AG's interests in securitization vehicles related to a portfolio of asset-backed securities (ABS), which are held within Corporate Center – Non-core and Legacy Portfolio. The Investment Bank also retained interests in securitization vehicles related to financing, underwriting, secondary market and derivative trading activities. In some cases UBS AG may be required to absorb losses from an unconsolidated SE before other parties because UBS AG's interest is subordinated to others in the ownership structure. An overview of UBS AG's interests in unconsolidated securitization vehicles and the relative ranking and external credit rating of those interests is presented in the table on the following page.

→ **Refer to Note 1a item 1 for more information on UBS AG's accounting policies regarding consolidation and sponsorship of securitization vehicles and other structured entities**

*Interests in client vehicles*

As of 31 December 2016 and 31 December 2015, UBS AG retained interests in client vehicles sponsored by UBS and third parties that relate to financing and derivative activities and to hedge structured product offerings. Included within these investments are securities guaranteed by US government agencies.

*Interests in investment funds*

UBS AG holds interests in a number of investment funds, primarily resulting from seed investments or to hedge structured product offerings. In addition to the interests disclosed in the table on the previous page, UBS AG manages the assets of various pooled investment funds and receives fees that are based, in whole or part, on the net asset value of the fund and / or the performance of the fund. The specific fee structure is determined on the basis of various market factors and considers the nature of the fund, the jurisdiction of incorporation as well as fee schedules negotiated with clients. These fee contracts represent an interest in the fund as they align UBS AG's exposure with investors, providing a variable return that is based on the performance of the entity. Depending on the structure of the fund, these fees may be collected directly from the fund assets and / or from the investors. Any amounts due are collected on a regular basis and are generally backed by the assets of the fund. UBS AG did not have any material exposure to loss from these interests as of 31 December 2016 or as of 31 December 2015.

## Note 28 Interests in subsidiaries and other entities (continued)

### Interests in unconsolidated securitization vehicles[1]

| | 31.12.16 | | | | |
|---|---|---|---|---|---|
| *CHF million, except where indicated* | Residential mortgage-backed securities | Commercial mortgage- backed securities | Other asset-backed securities[2] | Re-securiti- zation[3] | Total |
| **Sponsored by UBS** | | | | | |
| Interests in senior tranches | 103 | 34 | 0 | 14 | 151 |
| *of which: rated investment grade* | *0* | *34* | | | *34* |
| *of which: rated sub-investment grade* | *103* | | | | *103* |
| *of which: defaulted* | | | | *14* | *14* |
| Interests in mezzanine tranches | 1 | 0 | 0 | 0 | 1 |
| *of which: rated sub-investment grade* | *1* | | | | *1* |
| **Total** | 104 | 34 | 0 | 14 | 152 |
| *of which: Trading portfolio assets* | *1* | *34* | *0* | *14* | *49* |
| *of which: Financial assets designated at fair value* | *103* | *0* | *0* | *0* | *103* |
| **Total assets held by the vehicles in which UBS had an interest (CHF billion)** | 2 | 13 | 0 | 1 | 16 |
| | | | | | |
| **Not sponsored by UBS** | | | | | |
| Interests in senior tranches | 165 | 4 | 241 | 125 | 535 |
| *of which: rated investment grade* | *165* | *4* | *241* | *125* | *535* |
| Interests in mezzanine tranches | 32 | 0 | 0 | 0 | 32 |
| *of which: rated investment grade* | *29* | | | | *29* |
| *of which: defaulted* | *3* | | | | *3* |
| Interests in junior tranches | 18 | 0 | 0 | 0 | 18 |
| *of which: rated investment grade* | *17* | | | | *17* |
| *of which: rated sub-investment grade* | *1* | | | | *1* |
| **Total** | 215 | 4 | 241 | 125 | 585 |
| *of which: Trading portfolio assets* | *215* | *4* | *241* | *125* | *585* |
| **Total assets held by the vehicles in which UBS had an interest (CHF billion)** | 41 | 8 | 5 | 1 | 56 |

1 This table excludes receivables and derivative transactions with securitization vehicles. 2 Includes credit card, auto and student loan structures. 3 Includes collateralized debt obligations.

## Note 28 Interests in subsidiaries and other entities (continued)

**Interests in unconsolidated securitization vehicles (continued)[1]**

| | 31.12.15 | | | | |
|---|---|---|---|---|---|
| *CHF million, except where indicated* | Residential mortgage-backed securities | Commercial mortgage- backed securities | Other asset-backed securities[2] | Re-securiti- zation[3] | Total |
| **Sponsored by UBS** | | | | | |
| Interests in senior tranches | 0 | 54 | 0 | 13 | 66 |
| *of which: rated investment grade* | | *54* | *0* | | *54* |
| *of which: defaulted* | | | | *13* | *13* |
| Interests in mezzanine tranches | 3 | 7 | 0 | 0 | 10 |
| *of which: rated investment grade* | | *7* | | | *7* |
| *of which: rated sub-investment grade* | *2* | | | | *2* |
| *of which: defaulted* | *1* | | | | *1* |
| **Total** | 3 | 61 | 0 | 13 | 77 |
| *of which: Trading portfolio assets* | *3* | *61* | *0* | *13* | *77* |
| **Total assets held by the vehicles in which UBS had an interest (CHF billion)** | 0 | 28 | 0 | 1 | 29 |
| | | | | | |
| **Not sponsored by UBS** | | | | | |
| Interests in senior tranches | 284 | 66 | 383 | 140 | 873 |
| *of which: rated investment grade* | *284* | *65* | *383* | *140* | *872* |
| Interests in mezzanine tranches | 61 | 17 | 17 | 0 | 95 |
| *of which: rated investment grade* | *58* | *17* | *17* | *0* | *92* |
| *of which: defaulted* | *3* | | | | *3* |
| Interests in junior tranches | 11 | 3 | 0 | 0 | 14 |
| *of which: rated investment grade* | *11* | *0* | | | *11* |
| *of which: not rated* | *0* | *3* | | | *3* |
| **Total** | 356 | 86 | 400 | 140 | 983 |
| *of which: Trading portfolio assets* | *356* | *86* | *400* | *140* | *983* |
| **Total assets held by the vehicles in which UBS had an interest (CHF billion)** | 64 | 37 | 6 | 2 | 109 |

1 This table excludes receivables and derivative transactions with securitization vehicles. 2 Includes credit card, auto and student loan structures. 3 Includes collateralized debt obligations.

## Note 28 Interests in subsidiaries and other entities (continued)

*Sponsored unconsolidated structured entities in which UBS did not have an interest*

For several sponsored SEs, no interest was held by UBS AG at year-end. However, during the respective reporting period UBS AG transferred assets, provided services and held instruments that did not qualify as an interest in these sponsored SEs, and accordingly earned income or incurred expenses from these entities. The table below presents the income earned and expenses incurred directly from these entities during the year as well as corresponding asset information. The table does not include income earned and expenses incurred from risk management activities, including income and expenses from financial instruments used to economically hedge instruments transacted with the unconsolidated SEs.

The majority of the fee income arose from investment funds that are sponsored and administrated by UBS AG, but managed by third parties. As UBS AG does not provide any active management services, UBS was not exposed to risk from the performance of these entities and was therefore deemed not to have an interest in them. In certain structures, the fees receivable may be collected directly from the investors and have therefore not been included in the table below.

UBS AG also recorded net trading income from mark-to-market movements arising primarily from derivatives, such as interest rate and currency swaps as well as credit derivatives, through which UBS AG purchases protection, and financial liabilities designated at fair value, which do not qualify as interests because UBS AG does not absorb variability from the performance of the entity. Total income reported does not reflect economic hedges or other mitigating effects from UBS AG's risk management activities.

During 2016, UBS and third parties transferred assets totaling CHF 13 billion (2015: CHF 9 billion) into sponsored securitization and client vehicles created in 2016. For sponsored investment funds, transfers arose during the period as investors invested and redeemed positions, thereby changing the overall size of the funds, which, when combined with market movements, resulted in a total closing net asset value of CHF 14 billion (31 December 2015: CHF 12 billion).

**Sponsored unconsolidated structured entities in which UBS did not have an interest at year-end[1]**

| | As of or for the year ended | | | |
|---|---|---|---|---|
| | 31.12.16 | | | |
| *CHF million, except where indicated* | Securitization vehicles | Client vehicles | Investment funds | Total |
| Net interest income | 3 | (6) | 0 | (3) |
| Net fee and commission income | 0 | 0 | 53 | 53 |
| Net trading income | 2 | (158) | 29 | (128) |
| **Total income** | 4 | (165) | 82 | (78) |
| **Asset information (CHF billion)** | 7[2] | 6[3] | 14[4] | |

| | As of or for the year ended | | | |
|---|---|---|---|---|
| | 31.12.15 | | | |
| *CHF million, except where indicated* | Securitization vehicles | Client vehicles | Investment funds | Total |
| Net interest income | 2 | (11) | 0 | (10) |
| Net fee and commission income | 0 | 0 | 57 | 57 |
| Net trading income | 18 | 208 | 48 | 274 |
| **Total income** | 20 | 197 | 104 | 321 |
| **Asset information (CHF billion)** | 8[2] | 1[3] | 12[4] | |

1 These tables exclude profit attributable to preferred note holders of CHF 78 million for the year ended 31 December 2016 and CHF 77 million for the year ended 31 December 2015. 2 Represents the amount of assets transferred to the respective securitization vehicles. Of the total amount transferred, CHF 2 billion was transferred by UBS (31 December 2015: CHF 3 billion) and CHF 5 billion was transferred by third parties (31 December 2015: CHF 5 billion). 3 Represents total assets transferred to the respective client vehicles. Of the total amount transferred, CHF 5 billion was transferred by UBS (31 December 2015: CHF 1 billion) and CHF 1 billion was transferred by third parties (31 December 2015: CHF 1 billion). 4 Represents the total net asset value of the respective investment funds.

## Note 29 Business combinations

In 2016 and 2015, UBS AG did not complete any significant business combinations.

## Note 30 Changes in organization and disposals

### Measures to improve the resolvability of UBS Group in response to too big to fail requirements in Switzerland and other countries in which UBS Group operates

In December 2014, UBS Group AG completed an exchange offer for the shares of UBS AG and became the holding company of UBS Group. During 2015, UBS Group AG completed a court procedure under article 33 of the Swiss Stock Exchange Act (SESTA procedure) resulting in the cancelation of the shares of the remaining minority shareholders of UBS AG. As a result, UBS Group AG owns 100% of the outstanding shares of UBS AG.

In June 2015, UBS AG transferred its Personal & Corporate Banking and Wealth Management business booked in Switzerland to UBS Switzerland AG.

Also in 2015, a more self-sufficient business and operating model for UBS Limited was implemented. In the second half of 2015, the ownership of the majority of UBS AG's service subsidiaries outside the US was transferred to UBS Business Solutions AG, which was established to act as the UBS Group service company and is a direct subsidiary of UBS Group AG. The purpose of the service company structure is to improve the resolvability of UBS Group by enabling it to maintain operational continuity of critical services should a recovery or resolution event occur.

As of 1 January 2017, UBS AG completed the transfer of the shared service employees in the US to its US service company, UBS Business Solutions US LLC.

As of 1 July 2016, UBS Americas Holding LLC was designated as UBS AG's intermediate holding company for its US subsidiaries as required under the enhanced prudential standards regulations pursuant to the Dodd-Frank Act. UBS Americas Holding LLC holds all of UBS AG's US subsidiaries and is subject to US capital requirements, governance requirements and other prudential regulation.

In addition, UBS AG transferred the majority of the operating subsidiaries of Asset Management to UBS Asset Management AG during 2016. Furthermore, UBS AG merged its Wealth Management subsidiaries in Italy, Luxembourg (including its branches in Austria, Denmark and Sweden), the Netherlands and Spain into UBS Deutschland AG, which was renamed to UBS Europe SE, to establish UBS AG's new European legal entity which is headquartered in Frankfurt, Germany.

### Sale of subsidiaries and businesses

In 2016, UBS AG agreed to sell a life insurance subsidiary within Wealth Management, which resulted in the recognition of a loss of CHF 23 million. This sale is currently expected to close in the first half of 2017 subject to customary closing conditions. As of 31 December 2016, the assets and liabilities of this business are presented as a disposal group held for sale within *Other assets* and *Other liabilities* and amounted to CHF 5,137 million and CHF 5,213 million, respectively.

In 2015, UBS AG sold its Alternative Fund Services (AFS) business to Mitsubishi UFJ Financial Group Investor Services. Upon completion of the sale, UBS AG recognized a gain on sale of CHF 56 million and reclassified an associated net foreign currency translation gain of CHF 119 million from *Other comprehensive income* to the income statement. Also during 2015, UBS AG completed the sale of certain subsidiaries and businesses within Wealth Management, which resulted in the recognition of a combined net gain of CHF 169 million.

### Restructuring expenses

Restructuring expenses arise from programs that materially change either the scope of business that UBS AG engages in or the manner in which such business is conducted. Restructuring expenses are necessary to effect such programs and include items such as severance and other personnel-related expenses, duplicate headcount costs, impairment and accelerated depreciation of assets, contract termination costs, consulting fees, and related infrastructure and system costs. These costs are presented in the income statement according to the underlying nature of the expense.

## Note 30 Changes in organization and disposals

**Net restructuring expenses by business division and Corporate Center unit**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| Wealth Management | 447 | 323 | 185 |
| Wealth Management Americas | 139 | 137 | 55 |
| Personal & Corporate Banking | 117 | 101 | 64 |
| Asset Management | 100 | 82 | 50 |
| Investment Bank | 577 | 396 | 261 |
| Corporate Center | 62 | 194 | 61 |
| *of which: Services* | *41* | *138* | *30* |
| *of which: Non-core and Legacy Portfolio* | *21* | *56* | *31* |
| Total net restructuring expenses | 1,442 | 1,233 | 677 |
| *of which: personnel expenses* | *731* | *458* | *327* |
| *of which: general and administrative expenses* | *700* | *760* | *319* |
| *of which: depreciation and impairment of property, equipment and software* | *11* | *12* | *29* |
| *of which: amortization and impairment of intangible assets* | *0* | *2* | *2* |

**Net restructuring expenses by personnel expense category**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| Salaries | 422 | 311 | 145 |
| Variable compensation – performance awards | 101 | 38 | 35 |
| Variable compensation – other | 208 | 108 | 138 |
| Contractors | 56 | 46 | 28 |
| Social security | 8 | 5 | 4 |
| Pension and other post-employment benefit plans | (76) | (65) | (29) |
| Other personnel expenses | 12 | 15 | 6 |
| Total net restructuring expenses: personnel expenses | 731 | 458 | 327 |

**Net restructuring expenses by general and administrative expense category**

| | For the year ended | | |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
| Occupancy | 123 | 109 | 49 |
| Rent and maintenance of IT and other equipment | 93 | 31 | 23 |
| Communication and market data services | 1 | 0 | 0 |
| Administration | 28 | 7 | 3 |
| Travel and entertainment | 12 | 16 | 11 |
| Professional fees | 162 | 187 | 148 |
| Outsourcing of IT and other services | 287 | 316 | 82 |
| Other[1] | (5) | 95 | 2 |
| Total net restructuring expenses: general and administrative expenses | 700 | 760 | 319 |

1 Mainly comprised of onerous real estate lease contracts.

## Note 31 Operating leases and finance leases

Information on lease contracts classified as operating leases where UBS is the lessee is provided in Note 31a and information on finance leases where UBS acts as a lessor is provided in Note 31b.

### a) Operating lease commitments

As of 31 December 2016, UBS was obligated under a number of non-cancelable operating leases for premises and equipment used primarily for banking purposes. The significant premises leases usually include renewal options and escalation clauses in line with general office rental market conditions, as well as rent adjustments based on price indices. However, the lease agreements do not contain contingent rent payment clauses and purchase options, nor do they impose any restrictions on UBS's ability to pay dividends, engage in debt financing transactions or enter into further lease agreements.

| *CHF million* | 31.12.16 |
|---|---|
| **Expenses for operating leases to be recognized in:** | |
| 2017 | 708 |
| 2018 | 597 |
| 2019 | 516 |
| 2020 | 447 |
| 2021 | 385 |
| 2022 and thereafter | 2,351 |
| Subtotal commitments for minimum payments under operating leases | 5,004 |
| Less: Sublease rental income commitments | 329 |
| **Net commitments for minimum payments under operating leases** | 4,675 |

| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
|---|---|---|---|
| **Gross operating lease expense recognized in the income statement** | 737 | 741 | 759 |
| Sublease rental income | 78 | 70 | 73 |
| **Net operating lease expense recognized in the income statement** | 659 | 671 | 686 |

### b) Finance lease receivables

UBS leases a variety of assets to third parties under finance leases, such as commercial vehicles, production lines, medical equipment, construction equipment and aircraft. At the end of the respective lease term, assets may be sold to third parties or further leased. Lessees may participate in any sales proceeds achieved. Lease expenses cover the cost of the assets less their residual value as well as financing costs.

As of 31 December 2016, unguaranteed residual values of CHF 127 million had been accrued, and the accumulated allowance for uncollectible minimum lease payments receivable amounted to CHF 9 million. No contingent rents were received in 2016.

**Lease receivables**

| *CHF million* | 31.12.16 | | |
|---|---|---|---|
| | Total minimum lease payments | Unearned finance income | Present value |
| 2017 | 327 | 21 | 306 |
| 2018–2021 | 601 | 32 | 568 |
| Thereafter | 115 | 3 | 112 |
| **Total** | 1,043 | 57 | 986 |

## Note 32 Related parties

UBS AG defines related parties as associates (entities which are significantly influenced by UBS AG), joint ventures (entities in which UBS shares control with another party), post-employment benefit plans for UBS AG employees, key management personnel, close family members of key management personnel and entities which are, directly or indirectly, controlled or jointly controlled by key management personnel or their close family members. Key management personnel is defined as members of the Board of Directors (BoD) and Executive Board (EB).

### a) Remuneration of key management personnel

The non-independent members of the BoD have top management employment contracts and receive pension benefits upon retirement. Total remuneration of the non-independent members of the BoD and EB members, including those who stepped down during 2016, is provided in the table below.

**Remuneration of key management personnel**

| *CHF million* | 31.12.16 | 31.12.15 | 31.12.14 |
|---|---|---|---|
| Base salaries and other cash payments[1] | 24 | 21 | 22 |
| Incentive awards – cash[2] | 10 | 9 | 8 |
| Annual incentive award under DCCP | 20 | 20 | 18 |
| Employer's contributions to retirement benefit plans | 2 | 1 | 2 |
| Benefits in kind, fringe benefits (at market value) | 2 | 2 | 1 |
| Equity-based compensation[3] | 38 | 39 | 35 |
| **Total** | **97** | **92** | **86** |

1 Includes role-based allowances that have been made in line with market practice in response to the EU Capital Requirements Directive of 2013 (CRD IV). 2 Includes immediate and deferred cash. 3 Expenses for shares granted are calculated at grant date of the respective award and allocated over the vesting period, generally for 5 years. Refer to Note 27 for more information. In 2016, 2015 and 2014, equity-based compensation was entirely comprised of EOP awards.

The independent members of the BoD do not have employment or service contracts with UBS AG, and thus are not entitled to benefits upon termination of their service on the BoD. Payments to these individuals for their services as external board members amounted to CHF 7.2 million in 2016, CHF 6.7 million in 2015 and CHF 7.1 million in 2014.

### b) Equity holdings of key management personnel

**Equity holdings of key management personnel**

| | 31.12.16 | 31.12.15 |
|---|---|---|
| Number of stock options from equity participation plans held by non-independent members of the BoD and the EB members[1] | 620,950 | 1,401,686 |
| Number of shares held by members of the BoD, EB and parties closely linked to them[2] | 3,267,911 | 3,324,650 |

1 Refer to Note 27 for more information. 2 Excludes shares granted under variable compensation plans with forfeiture provisions.

Of the share totals above, 95,597 shares were held by close family members of key management personnel on 31 December 2016 and 31 December 2015. No shares were held by entities that are directly or indirectly controlled or jointly controlled by key management personnel or their close family members on 31 December 2016 and 31 December 2015. Refer to Note 27 for more information. As of 31 December 2016, no member of the BoD or EB was the beneficial owner of more than 1% of UBS Group AG's shares.

## Note 32 Related parties (continued)

### c) Loans, advances and mortgages to key management personnel

Non-independent members of the BoD and EB members have been granted loans, fixed advances and mortgages on substantially the same terms and conditions that are available to other employees, which are based on terms and conditions granted to third parties but are adjusted for differing credit risk. Independent BoD members are granted loans and mortgages under general market conditions.

Movements in the loan, advances and mortgage balances are as follows.

**Loans, advances and mortgages to key management personnel[1]**

| CHF million | 2016 | 2015 |
|---|---|---|
| Balance at the beginning of the year | 33 | 27 |
| Additions | 13 | 6 |
| Reductions | (13) | (1) |
| Balance at the end of the year | 33[2] | 33 |

1 All loans are secured loans. 2 Excludes CHF 2,684,498 of unused uncommitted credit facilities of one EB and one BoD member.

### d) Other related party transactions with entities controlled by key management personnel

In 2016 and 2015, UBS AG did not enter into transactions with entities which are directly or indirectly controlled or jointly controlled by UBS AG's key management personnel or their close family members and as of 31 December 2016, 31 December 2015 and 31 December 2014, there were no outstanding balances related to such transactions. Furthermore, in 2016 and 2015, entities controlled by key management personnel did not sell any goods or provide any services to UBS AG, and therefore did not receive any fees from UBS AG. UBS AG also did not provide services to such entities in 2015 and 2016, and therefore also received no fees.

## Note 32 Related parties (continued)

### e) Transactions with associates and joint ventures

**Loans and outstanding receivables to associates and joint ventures**

| *CHF million* | 2016 | 2015 |
|---|---|---|
| Carrying value at the beginning of the year | 476 | 552 |
| Additions | 4 | 9 |
| Reductions | (8) | (85) |
| Foreign currency translation | 0 | 0 |
| Carrying value at the end of the year | 472 | 476 |
| *of which: unsecured loans* | *461* | *464* |

**Other transactions with associates and joint ventures**

| | As of or for the year ended | |
|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 |
| Payments to associates and joint ventures for goods and services received | 153 | 149 |
| Fees received for services provided to associates and joint ventures | 3 | 7 |
| Commitments and contingent liabilities to associates and joint ventures | 4 | 4 |

→ **Refer to Note 28 for an overview of investments in associates and joint ventures**

### f) Receivables and payables from / to UBS Group AG and other subsidiaries of UBS Group AG

| *CHF million* | 2016 | 2015 |
|---|---|---|
| **Receivables** | | |
| Loans | 681 | 774 |
| Trading portfolio assets | 84 | 12 |
| Other assets | 35 | 93 |
| **Payables** | | |
| Due to customers | 26,527 | 12,323 |
| Other liabilities | 1,111 | 943 |

## Note 33 Invested assets and net new money

### Invested assets

Invested assets include all client assets managed by or deposited with UBS AG for investment purposes. Invested assets include managed fund assets, managed institutional assets, discretionary and advisory wealth management portfolios, fiduciary deposits, time deposits, savings accounts and wealth management securities or brokerage accounts. All assets held for purely transactional purposes and custody-only assets, including corporate client assets held for cash management and transactional purposes, are excluded from invested assets as UBS AG only administers the assets and does not offer advice on how the assets should be invested. Also excluded are non-bankable assets (e.g., art collections) and deposits from third-party banks for funding or trading purposes.

Discretionary assets are defined as client assets that UBS AG decides how to invest. Other invested assets are those where the client ultimately decides how the assets are invested. When a single product is created in one business division and sold in another, it is counted in both the business division that manages the investment and the one that distributes it. This results in double counting within UBS AG's total invested assets, as both business divisions are independently providing a service to their respective clients, and both add value and generate revenue.

### Net new money

Net new money in a reporting period is the amount of invested assets that are entrusted to UBS AG by new and existing clients, less those withdrawn by existing clients and clients who terminated their relationship with UBS AG.

Net new money is calculated using the direct method, under which inflows and outflows to / from invested assets are determined at the client level based on transactions. Interest and dividend income from invested assets are not counted as net new money inflows. Market and currency movements as well as fees, commissions and interest on loans charged are excluded from net new money, as are the effects resulting from any acquisition or divestment of a UBS AG subsidiary or business. Reclassifications between invested assets and custody-only assets as a result of a change in the service level delivered are generally treated as net new money flows; however, where such change in service level directly results from a new externally imposed regulation, the one-time net effect of the implementation is reported as an asset reclassification without net new money impact.

The Investment Bank does not track invested assets and net new money. However, when a client is transferred from the Investment Bank to another business division, this produces net new money even though client assets were already with UBS AG. There were no such transfers between the Investment Bank and other business divisions in 2016 and 2015.

### Invested assets and net new money

| | For the year ended | |
|---|---|---|
| *CHF billion* | 31.12.16 | 31.12.15 |
| Fund assets managed by UBS | 275 | 282 |
| Discretionary assets | 885 | 830 |
| Other invested assets | 1,661 | 1,577 |
| **Total invested assets**[1] | 2,821 | 2,689 |
| *of which: double count* | *176* | *185* |
| **Net new money**[1] | 27.2 | 27.7 |

1 Includes double counts.

### Development of invested assets

| | For the year ended | |
|---|---|---|
| *CHF billion* | 31.12.16 | 31.12.15 |
| Total invested assets at the beginning of the year[1] | 2,689 | 2,734 |
| Net new money | 27 | 28 |
| Market movements[2] | 98 | (24) |
| Foreign currency translation | 21 | (31) |
| Other effects | (14) | (16) |
| *of which: acquisitions / (divestments)* | *(14)* | *(16)* |
| **Total invested assets at the end of the year**[1] | 2,821 | 2,689 |

1 Includes double counts. 2 Includes interest and dividend income.

## Note 34 Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of foreign operations into Swiss francs.

| | Spot rate | | Average rate[1] | | |
|---|---|---|---|---|---|
| | As of | | For the year ended | | |
| | 31.12.16 | 31.12.15 | 31.12.16 | 31.12.15 | 31.12.14 |
| 1 USD | 1.02 | 1.00 | 0.99 | 0.97 | 0.92 |
| 1 EUR | 1.07 | 1.09 | 1.09 | 1.06 | 1.21 |
| 1 GBP | 1.26 | 1.48 | 1.32 | 1.47 | 1.51 |
| 100 JPY | 0.87 | 0.83 | 0.91 | 0.80 | 0.86 |

1 Monthly income statement items of foreign operations with a functional currency other than the Swiss franc are translated with month-end rates into Swiss francs. Disclosed average rates for a year represent an average of 12 month-end rates, weighted according to the income and expense volumes of all foreign operations with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for UBS AG.

## Note 35 Events after the reporting period

### Adjusting event subsequent to the publication of the unaudited fourth quarter 2016 report

The 2016 results and the balance sheet in this report differ from those presented in the unaudited fourth quarter 2016 report published on 27 January 2017 as a result of an adjusting event after the reporting period. Provisions for litigation, regulatory and similar matters increased reflecting an agreement in principle to resolve an RMBS matter related to the National Credit Union Association. This adjustment reduced 2016 net profit attributable to shareholders by CHF 102 million.

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### Sale of Fund Services units in Luxembourg and Switzerland

On 20 February 2017, UBS announced that it has entered into an agreement to sell Asset Management's fund administration servicing units in Luxembourg and Switzerland to Northern Trust. The transaction is expected to close in the second half of the year, subject to relevant approvals and other customary conditions. These units provide fund administration services for both UBS and third party funds with approximately CHF 420 billion in assets under administration.

### Dividend payment from UBS AG to UBS Group AG

On 2 March 2017, the Annual General Meeting of Shareholders of UBS AG approved an ordinary dividend distribution of CHF 2,250 million out of its capital contribution reserve to its shareholder, UBS Group AG.

## Note 36 Main differences between IFRS and Swiss GAAP

The consolidated financial statements of UBS AG are prepared in accordance with International Financial Reporting Standards (IFRS). The Swiss Financial Market Supervisory Authority (FINMA) requires financial groups that present their financial statements under IFRS to provide a narrative explanation of the main differences between IFRS and Swiss GAAP (FINMA Circular 2015 / 1 and the Banking Ordinance). Included in this Note are the significant differences in the recognition and measurement between IFRS and the provisions of the Banking Ordinance and the guidelines of FINMA governing true and fair view financial statement reporting pursuant to Article 25 through Article 42 of the Banking Ordinance.

### 1. Consolidation

Under IFRS, all entities that are controlled by the holding entity are consolidated.

Under Swiss GAAP, controlled entities that are deemed immaterial to UBS AG or that are held temporarily only are exempt from consolidation, but instead are recorded as participations or financial investments.

### 2. Financial assets available for sale

Under IFRS, financial assets available for sale are carried at fair value. Changes in fair value are recorded directly in equity until an asset is sold, collected or otherwise disposed of, or until an asset is determined to be impaired. At the time an available-for-sale asset is determined to be impaired, the cumulative unrealized loss previously recognized in equity is included in net profit or loss for the respective period. On disposal of a financial asset available for sale, the cumulative unrealized gain or loss previously recognized in equity is reclassified to the income statement.

Under Swiss GAAP, classification and measurement of financial assets designated as available for sale depend on the nature of the asset. Equity instruments with no permanent holding intent, as well as debt instruments, are classified as *Financial investments* and measured at the lower of (amortized) cost or market value. Market value adjustments up to the original cost amount and realized gains or losses upon disposal of the investment are recorded in the income statement as *Other income from ordinary activities*. Equity instruments with a permanent holding intent are classified as participations in *Investments in subsidiaries and other participations* and measured at cost less impairment. Impairment losses are recorded in the income statement as *Impairment of investments in subsidiaries and other participations*. Reversal of impairments up to the original cost amount as well as realized gains or losses upon disposal of the investment are recorded as *Extraordinary income / Extraordinary expenses* in the income statement.

### 3. Cash flow hedges

Under IFRS, when hedge accounting is applied, the fair value gain or loss on the effective portion of the derivative designated as a cash flow hedge is recognized in equity. When the hedged cash flows materialize, the accumulated unrealized gain or loss is reclassified to the income statement.

Under Swiss GAAP, the effective portion of the fair value change of the derivative instrument used to hedge cash flow exposures is deferred on the balance sheet as *Other assets* or *Other liabilities*. The deferred amounts are released to the income statement when the hedged cash flows materialize.

### 4. Fair value option

Under IFRS, UBS AG applies the fair value option to certain financial assets and financial liabilities not held for trading. Instruments for which the fair value option is applied are accounted for at fair value with changes in fair value reflected in *Net trading income*. The fair value option is applied primarily to structured debt instruments, certain non-structured debt instruments, high-quality liquid debt securities, structured reverse repurchase and repurchase agreements and securities borrowing agreements, certain structured and non-structured loans as well as loan commitments.

Under Swiss GAAP, the fair value option can only be applied to structured debt instruments that consist of a debt host contract and one or more embedded derivatives that do not relate to own equity. Furthermore, changes in fair value attributable to changes in unrealized own credit are not recognized in the income statement and the balance sheet.

### 5. Goodwill and intangible assets

Under IFRS, goodwill acquired in a business combination is not amortized but tested annually for impairment. Intangible assets with an indefinite useful life are also not amortized but tested annually for impairment.

Under Swiss GAAP, goodwill and intangible assets with indefinite useful lives are amortized over a period not exceeding five years, unless a longer useful life, which may not exceed 10 years, can be justified.

### 6. Pension and other post-employment benefit plans

Swiss GAAP permits the use of IFRS or Swiss accounting standards for pension and other post-employment benefit plans, with the election made on a plan-by-plan basis.

UBS AG has elected to apply IFRS (IAS 19) for the non-Swiss defined benefit plans and Swiss GAAP (FER 16) for the Swiss pension plan in its standalone financial statements. The requirements of Swiss GAAP are better aligned with the specific nature of Swiss pension plans, which are hybrid in that they combine elements of defined contribution and defined benefit plans, but are treated as defined benefit plans under IFRS. Key differences between Swiss GAAP and IFRS include the treatment of dynamic elements, such as future salary increases and future interest credits on retirement savings, which are not considered under the static method used in accordance with Swiss GAAP. Also, the discount rate used to determine the defined benefit obligation in accordance with IFRS is based on the yield of high-quality corporate bonds of the market in the respective pension plan country. The discount rate used in accordance with Swiss GAAP, i.e., the technical interest rate, is determined by the Pension Foundation Board based on the expected returns of the Board's investment strategy.

For defined benefit plans, IFRS requires the full defined benefit obligation net of the plan assets to be recorded on the balance sheet, with changes resulting from remeasurements recognized directly in equity. However, for non-Swiss defined benefit plans for which IFRS accounting is elected, changes due to remeasurements are recognized in the income statement of UBS AG standalone under Swiss GAAP.

Swiss GAAP requires that employer contributions to the pension fund are recognized as personnel expenses in the income statement. Further, Swiss GAAP requires an assessment as to whether, based on the financial statements of the pension fund prepared in accordance with Swiss accounting standards (FER 26), an economic benefit to, or obligation of, the employer arises from the pension fund and is recognized in the balance sheet when conditions are met. Conditions for recording a pension asset or liability would be met if, for example, an employer contribution reserve is available or the employer is required to contribute to the reduction of a pension deficit (on an FER 26 basis).

### 7. Netting of replacement values

Under IFRS, replacement values and related cash collateral are reported on a gross basis unless the restrictive IFRS netting requirements are met: i) existence of master netting agreements and related collateral arrangements that are unconditional and legally enforceable, both in the normal course of business and in the event of default, bankruptcy or insolvency of UBS AG and its counterparties, and ii) UBS AG's intention to either settle on a net basis or to realize the asset and settle the liability simultaneously.

Under Swiss GAAP, replacement values and related cash collateral are generally reported on a net basis, provided the master netting and the related collateral agreements are legally enforceable in the event of default, bankruptcy or insolvency of UBS AG's counterparties.

### 8. Negative interest

Under IFRS, negative interest income arising on a financial asset does not meet the definition of interest income and, therefore, negative interest on financial assets and negative interest on financial liabilities are presented within interest expense and interest income, respectively.

Under Swiss GAAP, negative interest on financial assets is presented within interest income and negative interest on financial liabilities is presented within interest expense.

### 9. Extraordinary income and expense

Certain non-recurring and non-operating income and expense items, such as realized gains or losses from the disposal of participations, fixed and intangible assets, as well as reversals of impairments of participations and fixed assets, are classified as extraordinary items under Swiss GAAP. This distinction is not available under IFRS.

### 10. Other presentational differences

Under IFRS, financial statements are comprised of an Income statement, Statement of comprehensive income, Balance sheet, Statement of changes in equity, Statement of cash flows and Notes to the financial statements. Under Swiss GAAP, the concept of other comprehensive income does not exist and consequently no Statement of comprehensive income is required. In addition, various other presentational differences exist.

## Note 37 Supplemental guarantor information required under SEC regulations

### Guarantee of PaineWebber securities

Prior to its acquisition by UBS in 2000, Paine Webber Group Inc. (PaineWebber) was an SEC registrant. Upon acquisition, PaineWebber was merged into UBS Americas Inc., a wholly owned subsidiary of UBS AG. Following the acquisition, UBS AG entered into a full and unconditional guarantee of the senior notes (Debt Securities) issued by PaineWebber. Under the guarantee, if UBS Americas Inc. fails to make any timely payment under the Debt Securities agreements, the holders of the Debt Securities or the Debt Securities trustee may demand payment from UBS AG without first proceeding against UBS Americas Inc.

As of 31 December 2016, CHF 137 million of these Debt Securities were outstanding. These remaining notes mature in 2017 and 2018.

### Guarantee of other securities

Trust preferred securities, which were registered under the US Securities Act and were issued by UBS Preferred Funding Trust IV and UBS Preferred Funding Trust V, both of which are US-domiciled entities that are 100% legally owned by UBS AG, were redeemed in 2016. UBS AG had fully and unconditionally guaranteed these securities.

As of 31 December 2016, UBS Preferred Funding Trust IV and UBS Preferred Funding Trust V had no balances outstanding. These entities are presented in a separate column in the supplemental guarantor information provided in the following tables. Amounts presented in this column are eliminated in the Elimination entries column, as these entities are not consolidated by UBS AG, as UBS AG does not absorb any variability from the performance of these entities.

### Joint liability of UBS Switzerland AG

In 2015, the Retail & Corporate and Wealth Management businesses booked in Switzerland were transferred from UBS AG to UBS Switzerland AG through an asset transfer in accordance with the Swiss Merger Act. Under the terms of the asset transfer agreement, UBS Switzerland AG assumed joint liability for contractual obligations of UBS AG existing on the asset transfer date, including the existing guarantee of aforementioned PaineWebber and other securities. To reflect this joint liability, UBS Switzerland AG is presented in a separate column as a subsidiary co-guarantor.

### Hard revenue and cost transfers

In 2016, the presentation of hard revenue and cost transfers between legal entities was revised. These transfers relate to services provided from one entity to another and are settled in cash. Hard revenue transfers paid and received are now shown on various income statement line items within *Operating income* based on the nature of the revenue transferred. Previously, such transfers were presented in *Other income*. Furthermore, hard cost transfers received are now shown in *Other income*, whereas previously these were shown in *General and administrative expenses*. Prior period information for 2015 and 2014 was restated accordingly. This change in presentation did not affect operating profit before tax for any entity.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated income statement

| *CHF million*<br>For the year ended 31 December 2016 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Operating income** | | | | | | | |
| Interest income | 8,500 | 4,151 | 2,227 | 25 | 1,148 | (2,269) | 13,782 |
| Interest expense | (6,686) | (714) | (1,135) | | (919) | 2,054 | (7,399) |
| Net interest income | 1,815 | 3,438 | 1,092 | 25 | 229 | (215) | 6,383 |
| Credit loss (expense) / recovery | (24) | (3) | (6) | | (3) | | (37) |
| Net interest income after credit loss expense | 1,790 | 3,434 | 1,086 | 25 | 226 | (215) | 6,346 |
| Net fee and commission income | 1,500 | 3,782 | 7,873 | | 3,332 | (40) | 16,447 |
| Net trading income | 3,717 | 780 | 454 | | 310 | (318) | 4,943 |
| Other income | 8,113 | 346 | 576 | | 1,677 | (10,027) | 685 |
| **Total operating income** | 15,120 | 8,343 | 9,988 | 25 | 5,545 | (10,600) | 28,421 |
| **Operating expenses** | | | | | | | |
| Personnel expenses | 5,691 | 2,044 | 6,243 | | 1,613 | 0 | 15,591 |
| General and administrative expenses | 5,213 | 3,507 | 3,402 | | 2,458 | (6,891) | 7,690 |
| Depreciation and impairment of property, equipment and software | 699 | 12 | 184 | | 85 | 0 | 980 |
| Amortization and impairment of intangible assets | 22 | 0 | 60 | | 9 | 0 | 91 |
| **Total operating expenses** | 11,625 | 5,563 | 9,889 | | 4,165 | (6,891) | 24,352 |
| **Operating profit / (loss) before tax** | 3,495 | 2,780 | 99 | 25 | 1,380 | (3,710) | 4,069 |
| Tax expense / (benefit) | 892 | 589 | (1,175) | | 482 | (7) | 781 |
| Net profit / (loss) | 2,603 | 2,191 | 1,274 | 25 | 898 | (3,703) | 3,288 |
| Net profit / (loss) attributable to preferred noteholders | 78 | 0 | 0 | 31 | 0 | (31) | 78 |
| Net profit / (loss) attributable to non-controlling interests | 0 | 0 | 0 | | 4 | 0 | 4 |
| **Net profit / (loss) attributable to shareholders** | 2,525 | 2,191 | 1,274 | (6) | 894 | (3,672) | 3,207 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under "Disclosure for legal entities" at www.ubs.com/investors for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of comprehensive income

| *CHF million* For the year ended 31 December 2016 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Comprehensive income attributable to shareholders** | | | | | | | |
| Net profit / (loss) | 2,525 | 2,191 | 1,274 | (6) | 894 | (3,672) | 3,207 |
| **Other comprehensive income** | | | | | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | | | | | |
| Foreign currency translation, net of tax | 335 | 0 | 285 | | (707) | 379 | 293 |
| Financial assets available for sale, net of tax | (22) | (33) | (8) | | (18) | 6 | (73) |
| Cash flow hedges, net of tax | (805) | 109 | 0 | | 0 | 29 | (666) |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | (491) | 77 | 277 | 0 | (725) | 415 | (447) |
| **Other comprehensive income that will not be reclassified to the income statement** | | | | | | | |
| Defined benefit plans, net of tax | (651) | (54) | (59) | | (36) | (25) | (824) |
| Own credit on financial liabilities designated at fair value, net of tax | (115) | | | | | | (115) |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | (766) | (54) | (59) | 0 | (36) | (25) | (939) |
| **Total other comprehensive income** | (1,257) | 23 | 218 | 0 | (761) | 390 | (1,386) |
| **Total comprehensive income attributable to shareholders** | 1,268 | 2,214 | 1,492 | (6) | 133 | (3,282) | 1,820 |
| Total comprehensive income attributable to preferred noteholders | 349 | | | | | | 349 |
| Total comprehensive income attributable to non-controlling interests | 0 | | | | 3 | | 3 |
| Total comprehensive income attributable to UBS Preferred Funding Trust IV & V | | | | | | | 0 |
| **Total comprehensive income** | 1,617 | 2,214 | 1,492 | (6) | 137 | (3,282) | 2,173 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under "Disclosure for legal entities" at www.ubs.com/investors for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated balance sheet

| *CHF million*<br>As of 31 December 2016 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|
| **Assets** | | | | | | |
| Cash and balances with central banks | 40,538 | 44,528 | 8,925 | 13,775 | 0 | 107,767 |
| Due from banks | 30,008 | 3,886 | 3,759 | 33,420 | (57,948) | 13,125 |
| Cash collateral on securities borrowed | 6,561 | 6,657 | 13,173 | 5,004 | (16,284) | 15,111 |
| Reverse repurchase agreements | 52,782 | 19,273 | 14,406 | 7,507 | (27,722) | 66,246 |
| Trading portfolio assets | 74,172 | 1,673 | 4,702 | 22,729 | (6,615) | 96,661 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *39,596* | *0* | *1,960* | *5,850* | *(17,145)* | *30,260* |
| Positive replacement values | 156,375 | 5,458 | 9,496 | 27,231 | (40,149) | 158,411 |
| Cash collateral receivables on derivative instruments | 22,117 | 913 | 2,701 | 12,068 | (11,135) | 26,664 |
| Financial assets designated at fair value | 35,498 | 16,416 | 5,371 | 41,199 | (63,091) | 65,024 |
| Loans | 94,506 | 184,241 | 50,150 | 11,589 | (3,849) | 307,004 |
| Financial assets available for sale | 8,104 | 2,046 | 6,593 | 3,469 | (4,536) | 15,676 |
| Financial assets held to maturity | 527 | 8,762 | 0 | 0 | 0 | 9,289 |
| Investments in subsidiaries and associates | 49,904 | 22 | 1 | 27 | (48,991) | 963 |
| Property, equipment and software | 6,961 | 19 | 1,075 | 241 | 0 | 8,297 |
| Goodwill and intangible assets | 297 | 0 | 5,130 | 1,161 | (32) | 6,556 |
| Deferred tax assets | 1,801 | 601 | 9,148 | 1,595 | 0 | 13,144 |
| Other assets | 10,645 | 1,526 | 9,071 | 7,241 | (3,071) | 25,412 |
| **Total assets** | 590,796 | 296,022 | 143,702 | 188,257 | (283,424) | 935,353 |
| **Liabilities** | | | | | | |
| Due to banks | 27,992 | 13,204 | 5,288 | 32,733 | (68,572) | 10,645 |
| Cash collateral on securities lent | 13,193 | 1,518 | 2,549 | 1,841 | (16,284) | 2,818 |
| Repurchase agreements | 16,944 | 5,385 | 2,710 | 9,295 | (27,722) | 6,612 |
| Trading portfolio liabilities | 15,535 | 154 | 3,643 | 9,780 | (6,287) | 22,825 |
| Negative replacement values | 151,274 | 4,982 | 9,491 | 28,213 | (40,149) | 153,810 |
| Cash collateral payables on derivative instruments | 31,585 | 109 | 2,409 | 12,504 | (11,135) | 35,472 |
| Due to customers | 118,934 | 248,731 | 85,702 | 53,474 | (56,641) | 450,199 |
| Financial liabilities designated at fair value | 54,504 | 0 | 1 | 4,559 | (4,047) | 55,017 |
| Debt issued | 70,558 | 8,330 | 145 | 401 | (437) | 78,998 |
| Provisions | 1,483 | 186 | 2,168 | 312 | 21 | 4,169 |
| Other liabilities | 31,879 | 2,212 | 11,100 | 18,352 | (3,099) | 60,443 |
| **Total liabilities** | 533,881 | 284,811 | 125,206 | 171,464 | (234,353) | 881,009 |
| **Equity attributable to shareholders** | 56,273 | 11,211 | 18,496 | 16,754 | (49,072) | 53,662 |
| Equity attributable to preferred noteholders | 642 | 0 | 0 | 0 | 0 | 642 |
| Equity attributable to non-controlling interests | 0 | 0 | 0 | 40 | 0 | 40 |
| **Total equity** | 56,915 | 11,211 | 18,496 | 16,793 | (49,072) | 54,343 |
| **Total liabilities and equity** | 590,796 | 296,022 | 143,702 | 188,257 | (283,424) | 935,353 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under "Disclosure for legal entities" at www.ubs.com/investors for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of cash flows

| *CHF million*<br>For the year ended 31 December 2016 | UBS AG[1] | UBS Switzerland AG[1] | UBS Americas Inc.[1] | Other subsidiaries[1] | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Net cash flow from / (used in) operating activities** | (26,981) | (3,914) | 8,979 | 4,503 | (17,413) |
| **Cash flow from / (used in) investing activities** | | | | | |
| Purchase of subsidiaries, associates and intangible assets | 0 | (3) | 0 | (23) | (26) |
| Disposal of subsidiaries, associates and intangible assets[2] | 93 | 0 | 0 | 0 | 93 |
| Purchase of property, equipment and software | (1,332) | (16) | (288) | (111) | (1,746) |
| Disposal of property, equipment and software | 175 | 0 | 1 | 32 | 209 |
| Purchase of financial assets available for sale | (694) | (998) | (2,792) | (2,788) | (7,271) |
| Disposal and redemption of financial assets available for sale | 24,902 | 21,729 | 1,694 | 5,772 | 54,097 |
| Net (purchase) / redemption of financial assets held to maturity | (527) | (8,468) | 0 | 0 | (8,996) |
| **Net cash flow from / (used in) investing activities** | 22,616 | 12,245 | (1,384) | 2,882 | 36,359 |
| **Cash flow from / (used in) financing activities** | | | | | |
| Net short-term debt issued / (repaid) | 8,229 | (7) | (2,975) | 193 | 5,440 |
| Distributions paid on UBS AG shares | (3,434) | 0 | 0 | 0 | (3,434) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 31,484 | 733 | 196 | 1,039 | 33,453 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (32,279) | (669) | (8) | (1,126) | (34,081) |
| Dividends paid and repayments of preferred notes | (1,366) | 0 | 0 | 0 | (1,366) |
| Net changes in non-controlling interests | 0 | 0 | 0 | (5) | (5) |
| Net activity related to group internal capital transactions and dividends | (1,333) | (2,000) | 0 | 3,333 | 0 |
| **Net cash flow from / (used in) financing activities** | 1,300 | (1,943) | (2,786) | 3,435 | 6 |

| **Total cash flow** | | | | | |
|---|---|---|---|---|---|
| Cash and cash equivalents at the beginning of the year | 47,902 | 40,246 | 7,084 | 7,731 | 102,962 |
| Net cash flow from / (used in) operating, investing and financing activities | (3,065) | 6,388 | 4,808 | 10,821 | 18,952 |
| Effects of exchange rate differences on cash and cash equivalents | (569) | (4) | 0 | (234) | (807) |
| **Cash and cash equivalents at the end of the year[3]** | 44,269 | 46,629 | 11,892 | 18,317 | 121,107 |
| *of which: cash and balances with central banks* | *40,486* | *44,528* | *8,925* | *13,775* | *107,715* |
| *of which: due from banks* | *2,836* | *2,095* | *2,931* | *4,065* | *11,927* |
| *of which: money market paper[4]* | *946* | *7* | *36* | *477* | *1,465* |

1 Cash flows generally represent a third-party view from a UBS AG (consolidated) perspective. As a consequence, the non-consolidated UBS Preferred Funding Trusts IV and V are not presented in this table. For the year ended 31 December 2016, these trusts had cash inflows of CHF 1,317 million from operating activities and an equivalent cash outflow for dividends paid to preferred note holders. 2 Includes dividends received from associates. 3 CHF 2,662 million of cash and cash equivalents were restricted. 4 Money market paper is included in the balance sheet under Trading portfolio assets, Financial investments available for sale and Financial assets designated at fair value.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated income statement

| *CHF million*<br>For the year ended 31 December 2015 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Operating income** | | | | | | | |
| Interest income | 9,102 | 3,039 | 1,367 | 63 | 1,626 | (2,020) | 13,178 |
| Interest expense | (5,885) | (545) | (501) | | (1,410) | 1,892 | (6,449) |
| Net interest income | 3,218 | 2,494 | 866 | 63 | 217 | (128) | 6,729 |
| Credit loss (expense) / recovery | (109) | (12) | 0 | | 4 | 0 | (117) |
| Net interest income after credit loss expense | 3,109 | 2,482 | 866 | 63 | 220 | (128) | 6,612 |
| Net fee and commission income | 2,738 | 3,001 | 7,940 | | 3,586 | (81) | 17,184 |
| Net trading income | 5,031 | 735 | 355 | | 331 | (756) | 5,696 |
| Other income | 15,371 | 120 | 774 | | 89 | (15,243) | 1,112 |
| **Total operating income** | 26,249 | 6,338 | 9,935 | 63 | 4,227 | (16,208) | 30,605 |
| **Operating expenses** | | | | | | | |
| Personnel expenses | 6,800 | 1,607 | 6,281 | | 1,265 | 0 | 15,954 |
| General and administrative expenses | 5,439 | 2,621 | 3,785 | | 2,254 | (5,880) | 8,219 |
| Depreciation and impairment of property, equipment and software | 672 | 11 | 159 | | 76 | 0 | 918 |
| Amortization and impairment of intangible assets | 22 | 0 | 73 | | 12 | 0 | 107 |
| **Total operating expenses** | 12,934 | 4,239 | 10,298 | | 3,607 | (5,880) | 25,198 |
| **Operating profit / (loss) before tax** | 13,315 | 2,099 | (362) | 63 | 619 | (10,327) | 5,407 |
| Tax expense / (benefit) | 1,136 | 489 | (1,200) | | (1,317) | (16) | (908) |
| Net profit / (loss) | 12,180 | 1,610 | 837 | 63 | 1,936 | (10,313) | 6,314 |
| Net profit / (loss) attributable to preferred noteholders | 77 | 0 | 0 | 31 | 0 | (31) | 77 |
| Net profit / (loss) attributable to non-controlling interests | 0 | 0 | 0 | | 3 | 0 | 3 |
| **Net profit / (loss) attributable to shareholders** | 12,103 | 1,610 | 837 | 32 | 1,933 | (10,281) | 6,235 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under "Disclosure for legal entities" at www.ubs.com/investors for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of comprehensive income

| *CHF million*<br>For the year ended 31 December 2015 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Comprehensive income attributable to shareholders** | | | | | | | |
| Net profit / (loss) | 12,103 | 1,610 | 837 | 32 | 1,933 | (10,281) | 6,235 |
| **Other comprehensive income** | | | | | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | | | | | |
| Foreign currency translation, net of tax | (11) | 0 | 121 | | (843) | 467 | (266) |
| Financial assets available for sale, net of tax | (51) | 43 | (21) | | (16) | (19) | (64) |
| Cash flow hedges, net of tax | (503) | (72) | 0 | | 0 | 57 | (518) |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | (564) | (29) | 100 | 0 | (859) | 504 | (848) |
| **Other comprehensive income that will not be reclassified to the income statement** | | | | | | | |
| Defined benefit plans, net of tax | 701 | (337) | (71) | | 27 | (15) | 304 |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | 701 | (337) | (71) | 0 | 27 | (15) | 304 |
| **Total other comprehensive income** | 136 | (366) | 29 | 0 | (832) | 489 | (545) |
| **Total comprehensive income attributable to shareholders** | 12,239 | 1,244 | 866 | 32 | 1,101 | (9,792) | 5,690 |
| Total comprehensive income attributable to preferred noteholders | 18 | 0 | 0 | 0 | 0 | 0 | 18 |
| Total comprehensive income attributable to non-controlling interests | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total comprehensive income attributable to UBS Preferred Funding Trust IV & V | 0 | 0 | 0 | 40 | 0 | (40) | 0 |
| **Total comprehensive income** | 12,257 | 1,244 | 866 | 72 | 1,102 | (9,832) | 5,709 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under "Disclosure for legal entities" at www.ubs.com/investors for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated balance sheet

| *CHF million*<br>As of 31 December 2015 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Assets** | | | | | | | |
| Cash and balances with central banks | 45,125 | 38,701 | 4,971 | | 2,509 | 0 | 91,306 |
| Due from banks | 29,225 | 3,224 | 12,776 | | 27,510 | (60,868) | 11,866 |
| Cash collateral on securities borrowed | 27,925 | 7,414 | 38,007 | | 6,506 | (54,268) | 25,584 |
| Reverse repurchase agreements | 61,253 | 16,258 | 21,039 | | 14,586 | (45,243) | 67,893 |
| Trading portfolio assets | 94,132 | 1,736 | 5,931 | 1,310 | 30,132 | (9,194) | 124,047 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *53,708* | *0* | *3,038* | | *2,264* | *(7,066)* | *51,943* |
| Positive replacement values | 175,943 | 6,033 | 21,463 | | 28,921 | (64,925) | 167,435 |
| Cash collateral receivables on derivative instruments | 19,026 | 1,056 | 5,964 | | 12,678 | (14,962) | 23,763 |
| Loans | 89,052 | 186,872 | 47,054 | | 14,554 | (24,809) | 312,723 |
| Financial assets designated at fair value | 6,303 | 0 | 199 | | 2,628 | (3,322) | 5,808 |
| Financial assets available for sale | 32,044 | 23,184 | 5,360 | | 5,996 | (4,042) | 62,543 |
| Investments in subsidiaries and associates | 45,689 | 14 | 1 | | 1 | (44,751) | 954 |
| Property, equipment and software | 6,499 | 15 | 972 | | 197 | 0 | 7,683 |
| Goodwill and intangible assets | 347 | 0 | 5,112 | | 1,139 | (30) | 6,568 |
| Deferred tax assets | 2,332 | 845 | 7,766 | | 1,890 | 0 | 12,833 |
| Other assets | 12,108 | 1,255 | 10,041 | | 3,111 | (4,266) | 22,249 |
| **Total assets** | 647,006 | 286,608 | 186,654 | 1,310 | 152,359 | (330,680) | 943,256 |
| **Liabilities** | | | | | | | |
| Due to banks | 31,725 | 18,948 | 26,320 | 4 | 5,782 | (70,944) | 11,836 |
| Cash collateral on securities lent | 34,094 | 2,493 | 23,437 | | 2,274 | (54,268) | 8,029 |
| Repurchase agreements | 20,658 | 6,505 | 11,490 | | 16,244 | (45,243) | 9,653 |
| Trading portfolio liabilities | 21,193 | 128 | 3,919 | | 11,317 | (7,420) | 29,137 |
| Negative replacement values | 170,718 | 5,655 | 21,109 | | 29,877 | (64,928) | 162,430 |
| Cash collateral payables on derivative instruments | 31,399 | 374 | 6,438 | | 15,033 | (14,962) | 38,282 |
| Due to customers | 102,483 | 231,252 | 53,633 | | 34,002 | (18,848) | 402,522 |
| Financial liabilities designated at fair value | 61,630 | 0 | 288 | | 4,675 | (3,598) | 62,995 |
| Debt issued | 70,792 | 8,274 | 3,126 | | 321 | (153) | 82,359 |
| Provisions | 1,680 | 179 | 1,969 | | 319 | 17 | 4,163 |
| Other liabilities | 40,255 | 1,806 | 16,683 | 1 | 20,179 | (4,318) | 74,606 |
| **Total liabilities** | 586,628 | 275,611 | 168,411 | 4 | 140,023 | (284,664) | 886,013 |
| **Equity attributable to shareholders** | 58,423 | 10,997 | 18,243 | 4 | 12,296 | (44,714) | 55,248 |
| Equity attributable to preferred noteholders | 1,954 | 0 | 0 | 1,302 | 0 | (1,302) | 1,954 |
| Equity attributable to non-controlling interests | 0 | 0 | 0 | 0 | 41 | 0 | 41 |
| **Total equity** | 60,378 | 10,997 | 18,243 | 1,306 | 12,336 | (46,016) | 57,243 |
| **Total liabilities and equity** | 647,006 | 286,608 | 186,654 | 1,310 | 152,359 | (330,680) | 943,256 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under "Disclosure for legal entities" at www.ubs.com/investors for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of cash flows

| *CHF million*<br>For the year ended 31 December 2015 | UBS AG[1] | UBS Switzerland AG[1] | UBS Americas Inc.[1] | Other subsidiaries[1] | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Net cash flow from / (used in) operating activities** | (1,457) | 2,681 | (525) | 1,298 | 1,997 |
| **Cash flow from / (used in) investing activities** | | | | | |
| Purchase of subsidiaries, associates and intangible assets | (12) | 0 | 1 | 0 | (13) |
| Disposal of subsidiaries, associates and intangible assets[2] | 464 | 0 | 13 | 0 | 477 |
| Purchase of property, equipment and software | (1,423) | (5) | (299) | (114) | (1,841) |
| Disposal of property, equipment and software | 503 | 0 | 9 | 35 | 547 |
| Purchase of financial assets available for sale | (66,659) | (18,686) | (2,722) | (13,123) | (101,189) |
| Disposal and redemption of financial assets available for sale | 51,515 | 22,501 | 2,952 | 16,616 | 93,584 |
| Net (purchase) / redemption of financial assets held to maturity | | | | | |
| **Net cash flow from / (used in) investing activities** | (15,613) | 3,810 | (47) | 3,415 | (8,434) |
| **Cash flow from / (used in) financing activities** | | | | | |
| Net short-term debt issued / (repaid) | (5,603) | 24 | (826) | 0 | (6,404) |
| Distributions paid on UBS AG shares | (2,626) | 0 | 0 | 0 | (2,626) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 46,882 | 772 | 7 | 129 | 47,790 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (42,415) | (402) | (129) | (1,274) | (44,221) |
| Dividends paid and repayments of preferred notes | (108) | 0 | 0 | 0 | (108) |
| Net changes in non-controlling interests | 0 | 0 | 0 | (5) | (5) |
| Net activity related to group internal capital transactions and dividends[3] | (30,512) | 33,293 | (114) | (2,666) | 0 |
| **Net cash flow from / (used in) financing activities** | (34,382) | 33,687 | (1,062) | (3,817) | (5,573) |

**Total cash flow**

| | | | | | |
|---|---|---|---|---|---|
| **Cash and cash equivalents at the beginning of the year** | 100,662 | 0 | 8,960 | 7,093 | 116,715 |
| Net cash flow from / (used in) operating, investing and financing activities | (51,451) | 40,178 | (1,634) | 896 | (12,010) |
| Effects of exchange rate differences on cash and cash equivalents | (1,309) | 67 | (241) | (259) | (1,742) |
| **Cash and cash equivalents at the end of the year[4]** | 47,902 | 40,246 | 7,084 | 7,731 | 102,962 |
| *of which: cash and balances with central banks* | *45,125* | *38,701* | *4,971* | *2,509* | *91,306* |
| *of which: due from banks* | *2,072* | *1,438* | *2,009* | *5,213* | *10,732* |
| *of which: money market paper[5]* | *704* | *107* | *104* | *9* | *924* |

1 Cash flows generally represent a third-party view from a UBS AG (consolidated) perspective. As a consequence, the non-consolidated UBS Preferred Funding Trusts IV and V are not presented in this table. For the year ended 31 December 2015, these trusts had cash inflows of CHF 77 million from operating activities and an equivalent cash outflow for dividends paid to preferred note holders. 2 Includes dividends received from associates. 3 Includes a transfer of cash and cash equivalents from UBS AG to UBS Switzerland AG of CHF 33,283 million. Refer to "Establishment of UBS Switzerland AG" in the "Legal entity financial and regulatory information" section of the UBS Group AG Annual Report 2015 for more information on the business transfer from UBS AG to UBS Switzerland AG. 4 CHF 3,963 million of cash and cash equivalents were restricted. 5 Money market paper is included in the balance sheet under Trading portfolio assets and Financial investments available for sale.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated income statement

| *CHF million*<br>For the year ended 31 December 2014 | UBS AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Operating income** | | | | | |
| Interest income | 11,585 | 1,591 | 1,160 | (1,143) | 13,194 |
| Interest expense | (6,287) | (597) | (898) | 1,143 | (6,639) |
| Net interest income | 5,298 | 995 | 262 | 0 | 6,555 |
| Credit loss (expense) / recovery | (108) | 9 | 9 | 13 | (78) |
| Net interest income after credit loss expense | 5,190 | 1,003 | 270 | 13 | 6,477 |
| Net fee and commission income | 6,111 | 7,288 | 3,799 | (122) | 17,076 |
| Net trading income | 2,750 | 438 | 237 | 416 | 3,841 |
| Other income | 7,967 | 438 | 580 | (8,354) | 632 |
| **Total operating income** | 22,019 | 9,168 | 4,887 | (8,047) | 28,026 |
| **Operating expenses** | | | | | |
| Personnel expenses | 7,991 | 5,806 | 1,483 | 0 | 15,280 |
| General and administrative expenses | 8,004 | 2,759 | 1,966 | (3,352) | 9,377 |
| Depreciation and impairment of property, equipment and software | 595 | 139 | 83 | 0 | 817 |
| Amortization and impairment of intangible assets | 7 | 59 | 16 | 0 | 83 |
| **Total operating expenses** | 16,597 | 8,764 | 3,548 | (3,352) | 25,557 |
| **Operating profit / (loss) before tax** | 5,421 | 404 | 1,339 | (4,695) | 2,469 |
| Tax expense / (benefit) | 949 | (2,375) | 248 | (2) | (1,180) |
| Net profit / (loss) | 4,472 | 2,779 | 1,091 | (4,693) | 3,649 |
| Net profit / (loss) attributable to preferred noteholders | 142 | 0 | 0 | 0 | 142 |
| Net profit / (loss) attributable to non-controlling interests | 0 | 0 | 5 | 0 | 5 |
| **Net profit / (loss) attributable to shareholders** | 4,330 | 2,779 | 1,086 | (4,693) | 3,502 |

1 Amounts presented for UBS AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone financial statements under "Disclosure for legal entities" at www.ubs.com/investors for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG (consolidated) financial statements in accordance with IFRS.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of comprehensive income

| *CHF million*<br>For the year ended 31 December 2014 | UBS AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Comprehensive income attributable to shareholders** | | | | | |
| Net profit / (loss) | 4,330 | 2,779 | 1,086 | (4,693) | 3,502 |
| **Other comprehensive income** | | | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | | | |
| Foreign currency translation, net of tax | 325 | 928 | 1,500 | (920) | 1,834 |
| Financial assets available for sale, net of tax | 32 | 78 | 37 | (6) | 140 |
| Cash flow hedges, net of tax | 693 | 0 | 0 | 0 | 693 |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | 1,050 | 1,006 | 1,537 | (926) | 2,667 |
| **Other comprehensive income that will not be reclassified to the income statement** | | | | | |
| Defined benefit plans, net of tax | (999) | (167) | (56) | 14 | (1,208) |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | (999) | (167) | (56) | 14 | (1,208) |
| **Total other comprehensive income** | 51 | 838 | 1,481 | (912) | 1,459 |
| **Total comprehensive income attributable to shareholders** | 4,381 | 3,617 | 2,567 | (5,605) | 4,961 |
| Total comprehensive income attributable to preferred noteholders | 260 | 0 | 0 | 0 | 260 |
| Total comprehensive income attributable to non-controlling interests | 0 | 0 | 7 | 0 | 7 |
| **Total comprehensive income** | 4,641 | 3,617 | 2,575 | (5,605) | 5,229 |

1 Amounts presented for UBS AG (standalone) and UBS Switzerland AG (standalone) represent IFRS-standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under "Disclosure for legal entities" at www.ubs.com/investors for information prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 37 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of cash flows

| *CHF million*<br>For the year ended 31 December 2014 | UBS AG[1] | UBS Americas Inc.[1] | Other subsidiaries[1] | UBS AG (consolidated) |
|---|---|---|---|---|
| **Net cash flow from / (used in) operating activities** | 7,438 | (1,814) | 1,608 | 7,231 |
| **Cash flow from / (used in) investing activities** | | | | |
| Purchase of subsidiaries, associates and intangible assets | (18) | 0 | 0 | (18) |
| Disposal of subsidiaries, associates and intangible assets[2] | 41 | 9 | 20 | 70 |
| Purchase of property, equipment and software | (1,521) | (300) | (94) | (1,915) |
| Disposal of property, equipment and software | 313 | 14 | 23 | 350 |
| Purchase of financial assets available for sale | (115,807) | (1,965) | (18,559) | (136,330) |
| Disposal and redemption of financial assets available for sale | 123,581 | 1,397 | 15,460 | 140,438 |
| Net (purchase) / redemption of financial assets held to maturity | | | | |
| **Net cash flow from / (used in) investing activities** | 6,589 | (845) | (3,149) | 2,596 |
| **Cash flow from / (used in) financing activities** | | | | |
| Net short-term debt issued / (repaid) | (3,984) | 0 | 1,064 | (2,921) |
| Net movements in treasury shares and own equity derivative activity | (719) | 0 | 0 | (719) |
| Distributions paid on UBS AG shares | (938) | 0 | 0 | (938) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 40,272 | 24 | 686 | 40,982 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (32,083) | (494) | (1,632) | (34,210) |
| Dividends paid and repayments of preferred notes | (110) | 0 | 0 | (110) |
| Net changes in non-controlling interests | 0 | 0 | (3) | (3) |
| Net activity related to group internal capital transactions and dividends | (319) | 0 | 319 | 0 |
| **Net cash flow from / (used in) financing activities** | 2,118 | (470) | 434 | 2,081 |

| **Total cash flow** | | | | |
|---|---|---|---|---|
| **Cash and cash equivalents at the beginning of the year** | 77,123 | 11,249 | 7,911 | 96,284 |
| Net cash flow from / (used in) operating, investing and financing activities | 16,145 | (3,129) | (1,107) | 11,908 |
| Effects of exchange rate differences on cash and cash equivalents | 7,394 | 840 | 289 | 8,522 |
| **Cash and cash equivalents at the end of the year[3]** | 100,662 | 8,960 | 7,093 | 116,715 |
| *of which: cash and balances with central banks* | *95,711* | *6,440* | *1,923* | *104,073* |
| *of which: due from banks* | *4,119* | *2,489* | *5,164* | *11,772* |
| *of which: money market paper[4]* | *832* | *31* | *6* | *869* |

1 Cash flow generally represent a third-party view from a UBS AG (consolidated) perspective. 2 Includes dividends received from associates. 3 CHF 4,178 million of cash and cash equivalents were restricted. 4 Money market paper is included in the balance sheet under Trading portfolio assets and Financial investments available for sale.

## Appendix 3 – Excerpts from the UBS AG Standalone Financial Statements and Regulatory Information for the Year Ended 31 December 2016

It should be noted that the term "pro-forma" as used in this Appendix 3 does not refer to the term "pro forma financial information" within the meaning of Regulation (EC) 809/2004.

# UBS AG standalone financial statements (audited)

## Income statement

| | | For the year ended | | % change from |
|---|---|---|---|---|
| *CHF million* | Note | 31.12.16 | 31.12.15[1] | 31.12.15 |
| Interest and discount income | | 5,776 | 6,204 | (7) |
| Interest and dividend income from trading portfolio | | 2,060 | 2,602 | (21) |
| Interest and dividend income from financial investments | | 165 | 199 | (17) |
| Interest expense | | (6,251) | (5,917) | 6 |
| Gross interest income | | 1,749 | 3,088 | (43) |
| Credit loss (expense) / recovery | | (32) | (158) | (80) |
| Net interest income | | 1,717 | 2,929 | (41) |
| Fee and commission income from securities and investment business and other fee and commission income | | 2,154 | 3,526 | (39) |
| Credit-related fees and commissions | | 217 | 285 | (24) |
| Fee and commission expense | | (829) | (1,012) | (18) |
| Net fee and commission income | | 1,541 | 2,799 | (45) |
| Net trading income | 3 | 3,930 | 3,725 | 6 |
| Net income from disposal of financial investments | | 117 | 150 | (22) |
| Dividend income from investments in subsidiaries and other participations | | 3,041 | 1,218 | 150 |
| Income from real estate holdings | | 563 | 565 | 0 |
| Sundry ordinary income | 4 | 4,740 | 4,706 | 1 |
| Sundry ordinary expenses | 4 | (539) | (831) | (35) |
| Other income from ordinary activities | | 7,922 | 5,809 | 36 |
| Total operating income | | 15,111 | 15,263 | (1) |
| Personnel expenses | 5 | 6,350 | 6,438 | (1) |
| General and administrative expenses | 6 | 5,073 | 5,615 | (10) |
| Subtotal operating expenses | | 11,422 | 12,053 | (5) |
| Impairment of investments in subsidiaries and other participations | | 1,099 | 413 | 166 |
| Depreciation and impairment of property, equipment and software | | 700 | 674 | 4 |
| Amortization and impairment of goodwill and other intangible assets | | 22 | 22 | 0 |
| Changes in provisions and other allowances and losses | | 109 | 25 | 336 |
| Total operating expenses | | 13,352 | 13,187 | 1 |
| Operating profit | | 1,759 | 2,076 | (15) |
| Extraordinary income | 7 | 1,637 | 10,264 | (84) |
| Extraordinary expenses | 7 | 2 | 136 | (99) |
| Tax expense / (benefit) | 8 | 150 | 220 | (32) |
| **Net profit / (loss)** | | 3,244 | 11,984 | (73) |

1 Comparative amounts presented for the year ended 31 December 2015 include the results of the Personal & Corporate Banking and Wealth Management businesses booked in Switzerland for the first three months of 2015. These businesses were transferred from UBS AG to UBS Switzerland AG effective 1 April 2015. Refer to "Establishment of UBS Switzerland AG" in the "Legal entity financial and regulatory information" section of the UBS Group AG Annual Report 2015 for more information.

## Balance sheet

| | | | | % change from |
|---|---|---|---|---|
| *CHF million* | Note | 31.12.16 | 31.12.15 | 31.12.15 |
| **Assets** | | | | |
| Cash and balances with central banks | | 40,778 | 45,125 | (10) |
| Due from banks | | 40,700 | 40,611 | 0 |
| Receivables from securities financing transactions | 9 | 59,778 | 90,479 | (34) |
| *of which: cash collateral on securities borrowed* | | *6,561* | *27,925* | *(77)* |
| *of which: reverse repurchase agreements* | | *53,217* | *62,553* | *(15)* |
| Due from customers | 10, 11 | 103,880 | 97,401 | 7 |
| Mortgage loans | 10, 11 | 4,312 | 4,679 | (8) |
| Trading portfolio assets | 12 | 74,282 | 94,210 | (21) |
| Positive replacement values | 13 | 20,951 | 20,987 | 0 |
| Financial investments | 14 | 34,669 | 27,528 | 26 |
| Accrued income and prepaid expenses | | 1,595 | 1,708 | (7) |
| Investments in subsidiaries and other participations | | 48,262 | 43,791 | 10 |
| Property, equipment and software | | 6,961 | 6,503 | 7 |
| Goodwill and other intangible assets | | 13 | 36 | (64) |
| Other assets | 15 | 3,295 | 3,986 | (17) |
| **Total assets** | | 439,476 | 477,045 | (8) |
| *of which: subordinated assets* | | *6,851* | *5,752* | *19* |
| *of which: subject to mandatory conversion and / or debt waiver* | | *4,521* | *4,020* | *12* |
| **Liabilities** | | | | |
| Due to banks | | 32,781 | 36,669 | (11) |
| Payables from securities financing transactions | 9 | 30,275 | 55,457 | (45) |
| *of which: cash collateral on securities lent* | | *13,193* | *34,094* | *(61)* |
| *of which: repurchase agreements* | | *17,082* | *21,363* | *(20)* |
| Due to customers | | 152,690 | 144,842 | 5 |
| Trading portfolio liabilities | 12 | 15,535 | 21,179 | (27) |
| Negative replacement values | 13 | 23,896 | 24,669 | (3) |
| Financial liabilities designated at fair value | 12, 18 | 51,806 | 58,104 | (11) |
| Bonds issued | | 71,215 | 72,750 | (2) |
| Accrued expenses and deferred income | | 4,125 | 4,356 | (5) |
| Other liabilities | 15 | 4,113 | 5,505 | (25) |
| Provisions | 11 | 1,501 | 1,786 | (16) |
| **Total liabilities** | | 387,937 | 425,316 | (9) |
| **Equity** | | | | |
| Share capital | 19 | 386 | 386 | 0 |
| General reserve | | 38,149 | 33,669 | 13 |
| *of which: statutory capital reserve* | | *38,149* | *38,149* | *0* |
| *of which: capital contribution reserve* | | *38,149* | *38,149* | *0* |
| *of which: statutory earnings reserve* | | *0* | *(4,480)* | *(100)* |
| Voluntary earnings reserve | | 9,760 | 5,689 | 72 |
| Net profit / (loss) for the period | | 3,244 | 11,984 | (73) |
| **Total equity** | | 51,539 | 51,728 | 0 |
| **Total liabilities and equity** | | 439,476 | 477,045 | (8) |
| *of which: subordinated liabilities* | | *17,692* | *16,139* | *10* |
| *of which: subject to mandatory conversion and / or debt waiver* | | *15,877* | *11,858* | *34* |

**Balance sheet (continued)**

| | | | % change from |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.15 |
| **Off-balance sheet items** | | | |
| Contingent liabilities, gross | 25,395 | 27,787 | (9) |
| Sub-participations | (1,905) | (1,866) | 2 |
| Contingent liabilities, net | 23,489 | 25,920 | (9) |
| *of which: guarantees to third parties related to subsidiaries* | *17,505* | *19,392* | *(10)* |
| *of which: credit guarantees and similar instruments* | *3,607* | *4,224* | *(15)* |
| *of which: performance guarantees and similar instruments* | *68* | *26* | *162* |
| *of which: documentary credits* | *2,310* | *2,278* | *1* |
| Irrevocable commitments, gross | 47,273 | 50,901 | (7) |
| Sub-participations | (1,512) | (1,559) | (3) |
| Irrevocable commitments, net | 45,761 | 49,342 | (7) |
| *of which: loan commitments* | *45,761* | *49,342* | *(7)* |
| Forward starting transactions[1] | 10,549 | 4,195 | 151 |
| *of which: reverse repurchase agreements* | *7,238* | *1,626* | *345* |
| *of which: securities borrowing agreements* | *36* | *6* | *500* |
| *of which: repurchase agreements* | *3,267* | *2,561* | *28* |
| *of which: securities lending agreements* | *8* | *2* | *300* |
| Liabilities for calls on shares and other equity instruments | 5 | 7 | (29) |

1 Cash to be paid in the future by either UBS AG or the counterparty.

## Off-balance sheet items

Off-balance sheet items include indemnities and guarantees issued by UBS AG for the benefit of subsidiaries and creditors of subsidiaries.

Where the indemnity amount issued by UBS AG is not specifically defined, the indemnity relates to the solvency or minimum capitalization of a subsidiary, and therefore no amount is included in the table above.

In addition, UBS AG is jointly and severally liable for the combined value added tax (VAT) liability of UBS entities that belong to the VAT group of UBS in Switzerland. This contingent liability is not included in the table above.

### Guarantee to UBS Limited

UBS AG has issued a guarantee for the benefit of each counterparty of UBS Limited. Under this guarantee, UBS AG irrevocably and unconditionally guarantees each and every obligation that UBS Limited enters into. UBS AG promises to pay to that counterparty on demand any unpaid balance of such liabilities under the terms of the guarantee.

### Joint and several liability

In June 2015, the Personal & Corporate Banking and Wealth Management businesses booked in Switzerland were transferred from UBS AG to UBS Switzerland AG through an asset transfer in accordance with the Swiss Merger Act. Under the Swiss Merger Act, UBS AG assumed joint liability for obligations existing on the asset transfer date, 14 June 2015, that were transferred to UBS Switzerland AG, excluding the collateralized portion of secured contractual obligations.

As of the asset transfer date, this joint liability amounted to approximately CHF 260 billion. UBS AG has no liability for new obligations incurred by UBS Switzerland AG after the asset transfer date. The joint liability amount declines as obligations mature, terminate or are novated following the asset transfer date.

As of 31 December 2016, the joint liability of UBS AG for contractual obligations of UBS Switzerland AG amounted to less than CHF 1 billion compared with CHF 55 billion as of 31 December 2015. As of 31 December 2016, the probability of an outflow under this joint and several liability was assessed to be remote, and as a result, the table above does not include any exposures arising under this joint and several liability.

→ **Refer to "Establishment of UBS Switzerland AG" in the "Legal entity financial and regulatory information" section of the UBS Group AG Annual Report 2015 for more information**

### Limited indemnity UBS Europe SE

In connection with the establishment of UBS Europe SE in 2016, UBS AG entered into an agreement with UBS Europe SE under which UBS AG would provide UBS Europe SE with limited indemnification of payment obligations that may arise from certain litigation, regulatory and similar matters.

As of 31 December 2016, the amount of such potential payment obligations could not be reliably estimated and the table above does therefore not include any amount related to this limited indemnification.

## Statement of changes in equity

| *CHF million* | Share capital | Statutory capital reserve | Statutory earnings reserve | Voluntary earnings reserve | Net profit / (loss) for the period | Total equity |
|---|---|---|---|---|---|---|
| **Balance as of 1 January 2015** | **384** | **40,782** | **(12,329)** | **5,689** | **7,849** | **42,376** |
| Capital increase | 1 | | | | | 1 |
| Dividends and other distributions | | (2,633) | | | | (2,633) |
| Net profit / (loss) appropriation | | | 7,849 | | (7,849) | 0 |
| Net profit / (loss) for the period | | | | | 11,984 | 11,984 |
| **Balance as of 31 December 2015** | **386** | **38,149** | **(4,480)** | **5,689** | **11,984** | **51,728** |
| **Balance as of 1 January 2016** | **386** | **38,149** | **(4,480)** | **5,689** | **11,984** | **51,728** |
| Capital increase | | | | | | 0 |
| Dividends and other distributions | | | (3,434) | | | (3,434) |
| Net profit / (loss) appropriation | | | 7,914 | 4,070 | (11,984) | 0 |
| Net profit / (loss) for the period | | | | | 3,244 | 3,244 |
| **Balance as of 31 December 2016** | 386 | 38,149 | 0 | 9,760 | 3,244 | 51,539 |

## Statement of appropriation of retained earnings and proposed dividend distribution out of capital contribution reserve

### Proposed appropriation of retained earnings

The Board of Directors proposes that the Annual General Meeting of Shareholders (AGM) on 2 March 2017 approve the following appropriation of retained earnings.

| | For the year ended |
|---|---|
| *CHF million* | 31.12.16 |
| Net profit for the period | 3,244 |
| Retained earnings carried forward | 0 |
| **Total retained earnings available for appropriation** | 3,244 |
| **Appropriation of retained earnings** | |
| Appropriation to voluntary earnings reserve | (3,244) |
| **Retained earnings carried forward** | 0 |

### Proposed dividend distribution out of capital contribution reserve

The Board of Directors proposes that the Annual General Meeting of Shareholders (AGM) on 2 March 2017 approve an ordinary dividend distribution of CHF 2,250 million out of the capital contribution reserve.

| | For the year ended |
|---|---|
| *CHF million* | 31.12.16 |
| **Total statutory capital reserve: capital contribution reserve before distribution[1]** | 38,149 |
| Distribution of capital contribution reserve within statutory capital reserve | (2,250) |
| **Total capital contribution reserve after distribution** | 35,899 |

1 Effective 1 January 2011, the Swiss withholding tax law provides that payments out of the capital contribution reserve are not subject to withholding tax. This law has led to interpretational differences between the Swiss Federal Tax Administration and companies about the qualifying amounts of capital contribution reserve and the disclosure in the financial statements. In view of this, the Swiss Federal Tax Administration has confirmed that UBS AG would be able to repay to shareholders CHF 23.0 billion of disclosed capital contribution reserve (status as of 1 January 2015) without being subject to the withholding tax deduction that applies to dividends paid out of retained earnings. This amount has not changed subsequent to the dividend payment in 2016 out of retained earnings. The decision about the remaining amount has been deferred to a future point in time.

## Note 1 Name, legal form and registered office

UBS AG is incorporated and domiciled in Switzerland. Its registered offices are at Bahnhofstrasse 45, CH-8001 Zurich and Aeschenvorstadt 1, CH-4051 Basel, Switzerland. UBS AG operates under the Swiss Code of Obligations and Swiss federal banking law as a corporation limited by shares (Aktiengesellschaft), a corporation that has issued shares of common stock to investors. UBS AG is 100% owned by UBS Group AG, the ultimate parent of the UBS Group.

## Note 2 Accounting policies

UBS AG standalone financial statements are prepared in accordance with Swiss GAAP (FINMA Circular 2015 / 1 and Banking Ordinance) and represent "reliable assessment statutory single-entity financial statements". The accounting policies are principally the same as for the consolidated financial statements of UBS AG outlined in Note 1 to the consolidated financial statements of UBS AG included in the UBS Group AG and UBS AG Annual Report 2016. Major differences between the Swiss GAAP requirements and International Financial Reporting Standards are described in Note 36 to the consolidated financial statements of UBS AG. The significant accounting policies applied for the standalone financial statements of UBS AG are discussed below.

→ **Refer to the UBS Group AG and UBS AG Annual Report 2016 for more information**

### Risk management

UBS AG is fully integrated into the Group-wide risk management process described in the audited part of the "Risk management and control" section of the UBS Group AG and UBS AG Annual Report 2016.

Further information on the use of derivative instruments and hedge accounting is provided in Notes 1 and 12 to the consolidated financial statements of UBS AG.

→ **Refer to the UBS Group AG and UBS AG Annual Report 2016 for more information**

### Compensation policy

The compensation structure and processes of UBS AG conform to the compensation principles and framework of UBS Group AG. For detailed information refer to the Compensation Report of UBS Group AG.

### Foreign currency translation

Transactions denominated in foreign currency are translated into Swiss francs at the spot exchange rate on the date of the transaction. At the balance sheet date, all monetary assets and liabilities, as well as equity instruments recorded in *Trading portfolio assets* and *Financial investments* denominated in foreign currency, are translated into Swiss francs using the closing exchange rate. Non-monetary items measured at historic cost are translated at the spot exchange rate on the date of the transaction. Assets and liabilities of foreign branches are translated into Swiss francs at the closing exchange rate. Income and expense items of foreign branches are translated at weighted average exchange rates for the period. All currency translation effects are recognized in the income statement.

The main currency translation rates used by UBS AG are provided in Note 34 to the consolidated financial statements of UBS AG.

→ **Refer to the UBS Group AG and UBS AG Annual Report 2016 for more information**

### Structured debt instruments

Structured debt instruments consist of a host contract and one or more embedded derivatives that do not relate to UBS AG's own equity. The embedded derivatives are assessed for bifurcation for measurement purposes and presented in the same balance sheet line as the host contract. By applying the fair value option, the vast majority of structured debt instruments are measured at fair value as a whole and recognized in *Financial liabilities designated at fair value*. Structured debt instruments comprise structured debt instruments issued and structured over-the-counter debt instruments. The fair value option for structured debt instruments can be applied only if the following criteria are cumulatively met:

– the structured debt instrument is measured on a fair value basis and is subject to risk management that is equivalent to risk management for trading activities;
– the application of the fair value option eliminates or significantly reduces an accounting mismatch that would otherwise arise; and
– changes in fair value attributable to changes in unrealized own credit are not recognized in the income statement and the balance sheet.

Fair value changes related to *Financial liabilities designated at fair value*, excluding changes in unrealized own credit, are recognized in *Net trading income*. Interest expense on *Financial liabilities designated at fair value* is recognized in *Interest expense*.

→ **Refer to Note 18 for more information**

## Note 2 Accounting policies (continued)

### Investments in subsidiaries and other participations

*Investments in subsidiaries and other participations* are equity interests that are held to carry on the business of UBS AG or for other strategic purposes. They include all subsidiaries directly held by UBS AG through which UBS AG conducts its business on a global basis. The investments are measured individually and carried at cost less impairment. The carrying value is tested for impairment when indications for a decrease in value exist, which include incurrence of significant operating losses or a severe depreciation of the currency in which the investment is denominated. If an investment in a subsidiary is impaired, its value is generally written down to the net asset value. Subsequent recoveries in value are recognized up to the original cost value based on either the increased net asset value or a value above the net asset value if, in the opinion of management, forecasts of future profitability provide sufficient evidence that a carrying value above net asset value is supported. Management may exercise its discretion as to what extent and in which period a recovery in value is recognized.

Impairments of investments are presented *as Impairment of investments in subsidiaries and other participations.* Reversals of impairments are presented as *Extraordinary income* in the income statement. Impairments and partial or full reversals of impairments for a subsidiary during the same annual period are determined on a net basis.

### Deferred taxes

Deferred tax assets are not recognized in UBS AG's standalone financial statements. However, deferred tax liabilities may be recognized for taxable temporary differences. Changes in the deferred tax liability balance are recognized in the income statement.

### Services provided to and received from subsidiaries, affiliated entities and UBS Group AG

Services provided to and received from UBS Group AG or any of its subsidiaries are settled in cash as hard cost transfers or hard revenue transfers paid or received.

When the nature of the underlying transaction between UBS AG and UBS Group AG or any of its subsidiaries contains a single, clearly identifiable service element, related income and expenses are presented in the respective income statement line item, e.g., *Fee and commission income from securities and investment business, Other fee and commission income, Fee and commission expense, Net trading income* or *General and administrative expenses.* To the extent the nature of the underlying transaction contains various service elements and is not clearly attributable to a particular income statement line item, related income and expenses are presented in *Sundry ordinary income* and *Sundry ordinary expenses*.

→ **Refer to Notes 4 and 6 for more information**

### Pension and other post-employment benefit plans

Swiss GAAP permits the use of IFRS or Swiss accounting standards for pension and other post-employment benefit plans, with the election made on a plan-by-plan basis.

UBS AG has elected to apply Swiss GAAP (FER 16) for the Swiss pension plan in its standalone financial statements. The requirements of Swiss GAAP are better aligned with the specific nature of Swiss pension plans, which are hybrid in that they combine elements of defined contribution and defined benefit plans, but are treated as defined benefit plans under IFRS. Swiss GAAP requires that the employer contributions to the pension fund are recognized as *Personnel expenses* in the income statement. The employer contributions to the Swiss pension fund are determined as a percentage of contributory compensation. Furthermore, Swiss GAAP requires an assessment as to whether, based on the financial statements of the pension fund prepared in accordance with Swiss accounting standards (FER 26), an economic benefit to, or obligation of, UBS AG arises from the pension fund and is recognized in the balance sheet when conditions are met. Conditions for recording a pension asset or liability would be met if, for example, an employer contribution reserve is available or UBS AG is required to contribute to the reduction of a pension deficit (on a FER 26 basis).

Key differences between Swiss GAAP and IFRS include the treatment of dynamic elements, such as future salary increases and future interest credits on retirement savings, which are not considered under the static method used in accordance with Swiss GAAP. Also, the discount rate used to determine the defined benefit obligation in accordance with IFRS is based on the yield of high-quality corporate bonds of the market in the respective pension plan country. The discount rate used in accordance with Swiss GAAP, i.e., the technical interest rate, is determined by the Pension Foundation Board based on the expected returns of the Board's investment strategy.

→ **Refer to Note 20 for more information**

UBS AG has elected to apply IFRS (IAS 19) for its non-Swiss defined benefit plans. However, remeasurements of the defined benefit obligation and the plan assets are recognized in the income statement rather than directly in equity. For corresponding disclosures in accordance with IAS 19 requirements, refer to Note 26 to the consolidated financial statements of UBS AG.

→ **Refer to the UBS Group AG and UBS AG Annual Report 2016 for more information**

**Note 2 Accounting policies (continued)**

## Subordinated assets and liabilities

Subordinated assets are comprised of claims that, based on an irrevocable written declaration, in the event of liquidation, bankruptcy or restructuring of the debtor, rank after the claims of all other creditors and may not be offset against amounts payable to the debtor nor secured by its assets. Subordinated liabilities are comprised of corresponding obligations.

Subordinated assets and liabilities that contain a point-of-non-viability clause in accordance with Swiss capital requirements per articles 29 and 30 of the Capital Adequacy Ordinance are disclosed as being *subject to mandatory conversion and / or debt waiver* and provide for the claim or the obligation to be written off or converted into equity in the event that the issuing bank reaches a point of non-viability.

## Dispensations in the standalone financial statements

As UBS AG prepares consolidated financial statements in accordance with IFRS, UBS AG is exempt from various disclosures in the standalone financial statements. The dispensations include the management report, the statement of cash flows and various note disclosures, as well as the publication of interim financial statements.

## Note 3a Net trading income by business

| | For the year ended | | % change from |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.15 |
| Investment Bank | 3,203 | 3,520 | (9) |
| *of which: Corporate Client Solutions* | *(2)* | *318* | |
| *of which: Investor Client Services* | *3,205* | *3,203* | *0* |
| Other business divisions and Corporate Center | 727 | 205 | 255 |
| **Total net trading income** | 3,930 | 3,725 | 6 |

## Note 3b Net trading income by underlying risk category

| | For the year ended | | % change from |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.15 |
| Interest rate instruments (including funds) | 939 | (346) | |
| Foreign exchange instruments | 1,208 | 1,912 | (37) |
| Equity instruments (including funds) | 1,797 | 1,822 | (1) |
| Credit instruments | (44) | 290 | |
| Precious metals / commodities | 31 | 47 | (34) |
| **Total net trading income** | 3,930 | 3,725 | 6 |
| *of which: net gains / (losses) from financial liabilities designated at fair value*[1] | *(1,416)* | *3,139* | |

1 Excludes fair value changes of hedges related to financial liabilities designated at fair value and foreign currency effects arising from translating foreign currency transactions into the respective functional currency, both of which are reported within Net trading income.

## Note 4 Sundry ordinary income and expenses

| | For the year ended | | % change from |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.15 |
| Gains from sale of loans and receivables | 0 | 23 | (100) |
| Income from hard cost transfers[1] | 4,699 | 4,580 | 3 |
| Other | 41 | 104 | (61) |
| **Total sundry ordinary income** | 4,740 | 4,706 | 1 |
| Losses from early redemption of debt | (2) | (275) | (99) |
| Expenses from hard revenue transfers | (440) | (497) | (11) |
| Other | (97) | (59) | 64 |
| **Total sundry ordinary expenses** | (539) | (831) | (35) |

1 Represents income received from UBS Group AG and subsidiaries in the UBS Group for services provided by UBS AG. Services provided by UBS AG primarily related to Corporate Center functions.

## Note 5 Personnel expenses

| | For the year ended | | % change from |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.15 |
| Salaries | 2,901 | 3,459 | (16) |
| Variable compensation – performance awards | 1,448 | 1,707 | (15) |
| Variable compensation – other | 164 | 191 | (14) |
| Contractors | 331 | 303 | 9 |
| Social security | 314 | 408 | (23) |
| Pension and other post-employment benefit plans | 966 | 122 | 692 |
| *of which: value adjustments for economic benefits or obligations from pension funds*[1] | *620* | *(318)* | |
| Wealth Management Americas: Financial advisor compensation | 9 | 8 | 13 |
| Other personnel expenses | 218 | 240 | (9) |
| **Total personnel expenses** | 6,350 | 6,438 | (1) |

1 Reflects the remeasurement of the defined benefit obligation and return on plan assets excluding amounts included in interest income for the non-Swiss defined benefit plans, for which IAS 19 is applied.

## Note 6 General and administrative expenses

| | For the year ended | | % change from |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.15 |
| Occupancy | 589 | 588 | 0 |
| Rent and maintenance of IT equipment | 384 | 383 | 0 |
| Communication and market data services | 313 | 322 | (3) |
| Administration | 1,334 | 1,413 | (6) |
| *of which: hard cost transfers paid*[1] | *929* | *955* | *(3)* |
| Marketing and public relations | 231 | 283 | (18) |
| Travel and entertainment | 167 | 226 | (26) |
| Fees to audit firms | 44 | 53 | (17) |
| *of which: financial and regulatory audits* | *41* | *44* | *(7)* |
| *of which: audit-related services* | *2* | *6* | *(67)* |
| *of which: tax and other services* | *1* | *3* | *(67)* |
| Other professional fees | 584 | 776 | (25) |
| Outsourcing of IT and other services | 1,427 | 1,571 | (9) |
| **Total general and administrative expenses** | 5,073 | 5,615 | (10) |

1 Represents expenses for services provided by UBS Group AG and subsidiaries in the UBS Group to UBS AG.

## Note 7 Extraordinary income and expenses

| | For the year ended | | % change from |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.15 |
| Gains from disposals of subsidiaries and other participations | 78 | 334 | (77) |
| Reversal of impairments and provisions of subsidiaries and other participations | 1,415 | 9,551 | (85) |
| Net gains from disposals of properties | 121 | 378 | (68) |
| Other extraordinary income | 23 | 1 | |
| **Total extraordinary income** | **1,637** | **10,264** | **(84)** |
| Losses from disposals of subsidiaries and other participations | 1 | 1 | 0 |
| Other extraordinary expenses | 1 | 134 | (99) |
| **Total extraordinary expenses** | **2** | **136** | **(99)** |

In 2016, UBS AG contributed the majority of its non-US participations conducting Asset Management businesses into UBS Asset Management AG, a direct subsidiary of UBS AG. The contribution was made at the aggregate cost value of the transferred investments of CHF 1.5 billion. This resulted in a gain of CHF 1.1 billion, recognized within *Extraordinary income*, as impairment losses recorded in previous years on some of these investments were reversed.

Also in 2016, UBS AG's direct Wealth Management subsidiaries UBS (Italia) SpA, UBS (Luxembourg) S.A. (including its branches in Austria, Denmark and Sweden), UBS Bank S.A. (Madrid) and UBS Bank (Netherlands) B.V. were merged into UBS Deutschland AG, which was renamed to UBS Europe SE and is headquartered in Frankfurt, Germany. The merger resulted in the recognition of a gain of CHF 0.3 billion, recognized within *Extraordinary income*, as certain impairment losses recorded in previous years were reversed.

In 2015, UBS AG contributed its participations in UBS Americas Inc., UBS Securities LLC and three Asset Management subsidiaries into UBS Americas Holding LLC, a direct subsidiary of UBS AG. This contribution was made at a fair value of CHF 21.2 billion, resulting in a gain of CHF 10.0 billion that was recognized in the income statement, largely as *Extraordinary income*, and which increased UBS AG's investment value in UBS Americas Holding LLC.

## Note 8 Taxes

| | For the year ended | | % change from |
|---|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 | 31.12.15 |
| Income tax expense / (benefit) | 118 | 186 | (37) |
| *of which: current* | *109* | *185* | *(41)* |
| *of which: deferred* | *9* | *1* | *800* |
| Capital tax | 32 | 34 | (6) |
| **Total tax expense / (benefit)** | **150** | **220** | **(32)** |

For the year ended 31 December 2016, the average tax rate, defined as income tax expense divided by the sum of operating profit and extraordinary income minus extraordinary expenses and capital tax, was 3.5% (2015: 1.5%). Income tax expense for the year ended 31 December 2016 included a benefit of CHF 256 million (2015: CHF 3,188 million) from the utilization of tax losses carried forward in UBS AG's main tax jurisdictions.

## Note 9 Securities financing transactions

| *CHF billion* | 31.12.16 | 31.12.15 |
|---|---|---|
| **On-balance sheet** | | |
| Receivables from securities financing transactions, gross | 109.3 | 133.3 |
| Netting of securities financing transactions | (49.5) | (42.8) |
| Receivables from securities financing transactions, net | 59.8 | 90.5 |
| Payables from securities financing transactions, gross | 79.8 | 98.2 |
| Netting of securities financing transactions | (49.5) | (42.8) |
| Payables from securities financing transactions, net | 30.3 | 55.5 |
| Assets pledged as collateral in connection with securities financing transactions | 39.9 | 54.0 |
| *of which: trading portfolio assets* | *39.1* | *52.8* |
| *of which: assets which may be sold or repledged by counterparties* | *38.4* | *51.9* |
| *of which: financial assets available for sale* | *0.8* | *1.2* |
| *of which: assets which may be sold or repledged by counterparties* | *0.8* | *1.2* |
| **Off-balance sheet** | | |
| Fair value of assets received as collateral in connection with securities financing transactions | 257.1 | 249.9 |
| *of which: repledged* | *199.4* | *183.0* |
| *of which: sold in connection with short sale transactions* | *15.5* | *21.2* |

## Note 10a Collateral for loans and off-balance sheet transactions

| | 31.12.16 | | | | | 31.12.15 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Secured | | | Unsecured | Total | Secured | | | Unsecured | Total |
| | Secured by collateral | | Secured by other credit enhancements[2] | | | Secured by collateral | | Secured by other credit enhancements[2] | | |
| *CHF million* | Real estate | Other collateral[1] | | | | Real estate | Other collateral[1] | | | |
| **On-balance sheet** | | | | | | | | | | |
| Due from customers, gross[3] | 4 | 60,922 | 224 | 42,811[4] | 103,961 | 4 | 64,223 | 1,457 | 31,947[4] | 97,630 |
| Mortgage loans, gross | 4,314 | 0 | 0 | 0 | 4,314 | 4,681 | 0 | 0 | 0 | 4,681 |
| *of which: residential mortgages* | *4,225* | | | | *4,225* | *4,605* | | | | *4,605* |
| *of which: office and business premises mortgages* | *36* | | | | *36* | *4* | | | | *4* |
| *of which: industrial premises mortgages* | *30* | | | | *30* | *44* | | | | *44* |
| *of which: other mortgages* | *23* | | | | *23* | *28* | | | | *28* |
| Total on-balance sheet, gross | 4,319 | 60,922 | 224 | 42,811 | 108,275 | 4,684 | 64,223 | 1,457 | 31,947 | 102,311 |
| Allowances | (2) | (20) | 0 | (62) | (83) | (2) | (152) | 0 | (77) | (231) |
| Total on-balance sheet, net | 4,317 | 60,902 | 224 | 42,749 | 108,192 | 4,683 | 64,071 | 1,457 | 31,870 | 102,080 |
| **Off-balance sheet** | | | | | | | | | | |
| Contingent liabilities, gross | 0 | 2,219 | 1,993 | 21,183 | 25,395 | 0 | 2,121 | 2,093 | 23,573 | 27,787 |
| Irrevocable commitments, gross | 342 | 12,301 | 5,516 | 29,114 | 47,273 | 456 | 9,673 | 7,515 | 33,256 | 50,901 |
| Forward starting reverse repurchase and securities borrowing transactions | 0 | 7,196 | 0 | 78 | 7,274 | 0 | 1,632 | 0 | 0 | 1,632 |
| Liabilities for calls on shares and other equities | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 7 | 7 |
| Total off-balance sheet | 342 | 21,716 | 7,509 | 50,380 | 79,946 | 456 | 13,425 | 9,608 | 56,837 | 80,327 |

1 Mainly comprised of cash and securities. 2 Includes credit default swaps and guarantees. 3 Includes prime brokerage margin lending receivables and prime brokerage receivables relating to securities financing transactions. 4 Primarily comprised of amounts due from subsidiaries.

## Note 10b Impaired financial instruments

| | 31.12.16 | | | | 31.12.15 | | | |
|---|---|---|---|---|---|---|---|---|
| *CHF million* | Gross impaired financial instruments | Allowances and provisions | Estimated liquidation proceeds of collateral | Net impaired financial instruments | Gross impaired financial instruments | Allowances and provisions | Estimated liquidation proceeds of collateral | Net impaired financial instruments |
| Amounts due from customers | 157 | 81 | 0 | 76 | 474 | 229 | 0 | 245 |
| Mortgage loans | 5 | 2 | 3 | 0 | 5 | 2 | 4 | 0 |
| Guarantees and loan commitments | 24 | 13 | 0 | 11 | 17 | 3 | 0 | 14 |
| **Total impaired financial instruments** | 186 | 96 | 3 | 87 | 496 | 234 | 4 | 259 |

## Note 11a Allowances

| *CHF million* | Balance as of 31.12.15 | Increase recognized in the income statement | Release recognized in the income statement | Write-offs | Recoveries and past due interest | Foreign currency translation | Balance as of 31.12.16 |
|---|---|---|---|---|---|---|---|
| Specific allowances for amounts due from customers and mortgage loans | 231 | 82 | (64) | (168) | 20 | (22) | 78 |
| Specific allowances for amounts due from banks | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Collective allowances[1] | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| **Total allowances** | 231 | 87 | (64) | (168) | 20 | (22) | 83 |

1 Mainly relates to amounts due from customers.

## Note 11b Provisions

| *CHF million* | Balance as of 31.12.15 | Increase recognized in the income statement | Release recognized in the income statement | Provisions used in conformity with designated purpose | Recoveries | Foreign currency translation | Balance as of 31.12.16 |
|---|---|---|---|---|---|---|---|
| Default risk related to loan commitments and guarantees | 3 | 15 | (5) | 0 | 0 | 0 | 13 |
| Operational risks | 20 | 6 | (2) | (7) | 0 | (1) | 15 |
| Litigation, regulatory and similar matters[1] | 1,063 | 167 | (67) | (66) | 0 | (2) | 1,096 |
| Restructuring | 288 | 169 | (49) | (233) | 6 | (2) | 178 |
| Real estate[2] | 94 | 4 | 0 | (19) | 0 | (2) | 77 |
| Employee benefits | 165 | 3 | (22) | (85) | 1 | (12) | 50 |
| Parental support to subsidiaries | 96 | 0 | 0 | (96) | 0 | 0 | 0 |
| Deferred taxes | 10 | 9 | 0 | 0 | 0 | 0 | 18 |
| Other | 47 | 15 | (7) | 0 | 0 | 0 | 54 |
| **Total provisions** | 1,786 | 387 | (153) | (506) | 7 | (19) | 1,501 |

1 Includes provisions for litigation resulting from security risks. 2 Includes provisions for onerous lease contracts of CHF 16 million as of 31 December 2016 (31 December 2015: CHF 25 million) and reinstatement cost provisions for leasehold improvements of CHF 61 million as of 31 December 2016 (31 December 2015: CHF 69 million).

## Note 12 Trading portfolio and other financial instruments measured at fair value

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| **Assets** | | |
| Trading portfolio assets | 74,282 | 94,210 |
| *of which: debt instruments*[1] | *16,073* | *22,261* |
| *of which: listed* | *11,840* | *13,831* |
| *of which: equity instruments* | *55,304* | *70,035* |
| *of which: precious metals and other physical commodities* | *2,905* | *1,915* |
| Total assets measured at fair value | 74,282 | 94,210 |
| *of which: fair value derived using a valuation model* | *11,159* | *18,783* |
| *of which: securities eligible for repurchase transactions in accordance with liquidity regulations*[2] | *10,249* | *15,894* |
| **Liabilities** | | |
| Trading portfolio liabilities | 15,535 | 21,179 |
| *of which: debt instruments*[1] | *3,884* | *4,190* |
| *of which: listed* | *3,540* | *3,899* |
| *of which: equity instruments* | *11,651* | *16,989* |
| Financial liabilities designated at fair value[3] | 51,806 | 58,104 |
| Total liabilities measured at fair value | 67,341 | 79,283 |
| *of which: fair value derived using a valuation model* | *53,974* | *60,520* |

1 Includes money market paper. 2 Consists of high quality liquid debt securities that are eligible for repurchase transactions at the Swiss National Bank or other central banks. 3 Refer to Note 18 for more information.

## Note 13 Derivative instruments

| | 31.12.16 | | | 31.12.15 | | |
|---|---|---|---|---|---|---|
| *CHF billion* | PRV[2] | NRV[3] | Total notional values | PRV[2] | NRV[3] | Total notional values |
| **Interest rate contracts** | | | | | | |
| Forwards[1] | 0.1 | 0.2 | 2,283 | 0.1 | 0.3 | 2,458 |
| Swaps | 47.3 | 39.8 | 8,222 | 69.3 | 60.7 | 7,636 |
| *of which: designated in hedge accounting relationships* | *0.2* | *0.0* | *4* | *0.4* | *0.0* | *6* |
| Futures | 0.0 | 0.0 | 319 | 0.0 | 0.0 | 335 |
| Over-the-counter (OTC) options | 12.5 | 13.9 | 959 | 17.4 | 19.2 | 1,132 |
| Exchange-traded options | 0.0 | 0.0 | 146 | 0.0 | 0.0 | 208 |
| **Total** | 59.9 | 54.0 | 11,928 | 86.9 | 80.1 | 11,769 |
| **Foreign exchange contracts** | | | | | | |
| Forwards | 21.7 | 19.0 | 1,365 | 17.7 | 16.5 | 1,388 |
| Interest and currency swaps | 43.3 | 42.4 | 2,393 | 38.8 | 38.0 | 2,837 |
| Futures | 0.0 | 0.0 | 6 | 0.0 | 0.0 | 8 |
| Over-the-counter (OTC) options | 11.1 | 11.0 | 1,045 | 9.6 | 9.3 | 975 |
| Exchange-traded options | 0.0 | 0.1 | 9 | 0.0 | 0.0 | 8 |
| **Total** | 76.2 | 72.5 | 4,818 | 66.1 | 63.8 | 5,217 |
| **Equity / index contracts** | | | | | | |
| Forwards | 0.1 | 0.1 | 14 | 0.1 | 0.1 | 15 |
| Swaps | 4.5 | 5.6 | 147 | 3.5 | 4.6 | 150 |
| Futures | 0.0 | 0.0 | 28 | 0.0 | 0.0 | 25 |
| Over-the-counter (OTC) options | 3.8 | 5.8 | 149 | 4.7 | 6.7 | 156 |
| Exchange-traded options | 6.1 | 7.0 | 299 | 5.5 | 6.5 | 231 |
| **Total** | 14.4 | 18.4 | 637 | 13.8 | 18.0 | 577 |
| **Credit derivative contracts** | | | | | | |
| Credit default swaps | 3.7 | 3.8 | 251 | 6.0 | 5.9 | 318 |
| Total return swaps | 0.2 | 0.9 | 10 | 0.6 | 0.7 | 12 |
| Other | 0.0 | 0.0 | 3 | 0.0 | 0.0 | 4 |
| **Total** | 3.9 | 4.8 | 264 | 6.7 | 6.5 | 334 |
| **Commodity, precious metals and other contracts** | | | | | | |
| Forwards | 0.3 | 0.2 | 8 | 0.3 | 0.3 | 5 |
| Swaps | 0.4 | 0.5 | 24 | 0.7 | 0.5 | 19 |
| Futures | 0.0 | 0.0 | 9 | 0.0 | 0.0 | 8 |
| Over-the-counter (OTC) options | 0.5 | 0.2 | 24 | 0.9 | 0.6 | 19 |
| Exchange-traded options | 0.7 | 0.7 | 19 | 0.7 | 0.9 | 11 |
| **Total** | 1.9 | 1.7 | 84 | 2.5 | 2.3 | 63 |
| **Total before netting** | 156.4 | 151.3 | 17,732 | 176.0 | 170.7 | 17,960 |
| *of which: trading derivatives* | *156.2* | *151.3* | | *175.6* | *170.7* | |
| *of which: fair value derived using a valuation model* | *155.9* | *150.8* | | *175.2* | *170.3* | |
| *of which: derivatives designated in hedge accounting relationships* | *0.2* | *0.0* | | *0.4* | *0.0* | |
| *of which: fair value derived using a valuation model* | *0.2* | *0.0* | | *0.4* | *0.0* | |
| Netting with cash collateral payables / receivables | (19.5) | (11.5) | | (18.7) | (9.7) | |
| Replacement value netting | (115.9) | (115.9) | | (136.3) | (136.3) | |
| **Total after netting** | 21.0 | 23.9 | | 21.0 | 24.7 | |
| *of which: with central clearing counterparties* | *0.0* | *0.2* | | *0.0* | *0.6* | |
| *of which: with bank and broker-dealer counterparties* | *7.7* | *8.6* | | *7.4* | *9.2* | |
| *of which: other client counterparties* | *13.2* | *15.0* | | *13.6* | *14.9* | |

1 Includes forward rate agreements. 2 PRV: positive replacement values. 3 NRV: negative replacement values.

## Note 14a Financial investments by instrument type

| | 31.12.16 | | 31.12.15 | |
|---|---|---|---|---|
| *CHF million* | Carrying value | Fair value | Carrying value | Fair value |
| Debt instruments | 34,427 | 34,463 | 27,296 | 27,354 |
| *of which: held to maturity* | *527* | *527* | *0* | *0* |
| *of which: available for sale* | *33,900* | *33,936* | *27,296* | *27,354* |
| Equity instruments | 233 | 244 | 223 | 234 |
| *of which: qualified participations[1]* | *82* | *84* | *133* | *137* |
| Property | 8 | 8 | 9 | 9 |
| **Total financial investments** | 34,669 | 34,715 | 27,528 | 27,598 |
| *of which: securities eligible for repurchase transactions in accordance with liquidity regulations[2]* | *33,326* | *33,360* | *27,127* | *27,181* |

1 Qualified participations are investments in which UBS AG holds 10% or more of the total capital or has at least 10% of total voting rights. 2 Consists of high quality liquid debt securities that are eligible for repurchase transactions at the Swiss National Bank or other central banks.

## Note 14b Financial investments by counterparty rating – debt instruments

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| **Internal UBS rating[1]** | | |
| 0–1 | 27,607 | 26,632 |
| 2–3 | 6,817 | 653 |
| 4–5 | 0 | 0 |
| 6–8 | 0 | 0 |
| 9–13 | 0 | 0 |
| Non-rated | 4 | 10 |
| **Total financial investments** | 34,427 | 27,296 |

1 Refer to Note 17 for more information.

## Note 15a Other assets

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Settlement and clearing accounts | 136 | 116 |
| VAT and other indirect tax receivables | 182 | 226 |
| Bail deposit[1] | 1,202 | 1,210 |
| Other | 1,775 | 2,435 |
| *of which: other receivables due from UBS Group AG and subsidiaries in the UBS Group* | *1,284* | *1,850* |
| **Total other assets** | 3,295 | 3,986 |

1 Refer to item 1 in Note 20b to the UBS AG consolidated financial statements in the UBS Group AG and UBS AG Annual Report 2016 for more information.

## Note 15b Other liabilities

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Deferral position for hedging instruments | 1,259 | 2,826 |
| Settlement and clearing accounts | 247 | 232 |
| Net defined benefit liabilities | 697 | 129 |
| VAT and other indirect tax payables | 126 | 110 |
| Other | 1,785 | 2,208 |
| *of which: other payables due to UBS Group AG and subsidiaries in the UBS Group* | *1,521* | *1,694* |
| **Total other liabilities** | 4,113 | 5,505 |

## Note 16 Pledged assets

As of 31 December 2016, assets pledged by UBS AG were entirely comprised of securities with a carrying value of CHF 1,809 million (31 December 2015: CHF 2,597 million) with a related effective commitment of CHF 160 million (31 December 2015: CHF 258 million). These assets were primarily pledged for derivative transactions and exclude assets pledged for securities financing transactions. They also exclude assets placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes that together amounted to CHF 1.8 billion as of 31 December 2016 (31 December 2015: CHF 2.1 billion).

→ **Refer to Note 9 for more information on securities financing transactions**

## Note 17 Country risk of total assets

The table below provides a breakdown of total non-Swiss assets by credit rating. These credit ratings reflect the sovereign credit rating of the country to which the ultimate risk of the underlying asset is related. The ultimate country of risk for unsecured loan positions is the domicile of the immediate borrower or, in the case of a legal entity, the domicile of the ultimate parent entity. For collateralized or guaranteed positions, the ultimate country of risk is the domicile of the provider of the collateral or guarantor or, if applicable, the domicile of the ultimate parent entity of the provider of the collateral or guarantor. For mortgage loans, the ultimate country of risk is the country where the real estate is located. Similarly, the ultimate country of risk for property and equipment is the country where the property and equipment is located. Assets for which Switzerland is the ultimate country of risk are provided separately in order to reconcile them to total balance sheets assets.

→ **Refer to the "Risk management and control" section of the UBS Group AG and UBS AG Annual Report 2016 for more information**

| | | | | | | 31.12.16 | | 31.12.15 | |
|---|---|---|---|---|---|---|---|---|---|
| Classification | Internal UBS rating | Description | Moody's Investors Service | Standard & Poor's | Fitch | CHF million | % | CHF million | % |
| | 0 and 1 | Investment grade | Aaa | AAA | AAA | 204,113 | 46 | 227,855 | 48 |
| Low risk | 2 | | Aa1 to Aa3 | AA+ to AA– | AA+ to AA– | 127,349 | 29 | 141,073 | 30 |
| | 3 | | A1 to A3 | A+ to A– | A+ to AA– | 38,915 | 9 | 39,846 | 8 |
| Medium risk | 4 | | Baa1 to Baa2 | BBB+ to BBB | BBB+ to BBB | 13,810 | 3 | 19,053 | 4 |
| | 5 | | Baa3 | BBB– | BBB– | 4,477 | 1 | 4,399 | 1 |
| High risk | 6 | Sub-investment grade | Ba1 | BB+ | BB+ | 1,308 | 0 | 2,430 | 1 |
| | 7 | | Ba2 | BB | BB | 1,241 | 0 | 84 | 0 |
| | 8 | | Ba3 | BB– | BB– | 61 | 0 | 73 | 0 |
| | 9 | | B1 | B+ | B+ | 192 | 0 | 173 | 0 |
| Very high risk | 10 | | B2 | B | B | 1,065 | 0 | 93 | 0 |
| | 11 | | B3 | B– | B– | 156 | 0 | 954 | 0 |
| | 12 | | Caa | CCC | CCC | 361 | 0 | 216 | 0 |
| | 13 | | Ca to C | CC to C | CC to C | 121 | 0 | 82 | 0 |
| Distressed | Default | Defaulted | D | D | D | 6 | 0 | 5 | 0 |
| **Subtotal** | | | | | | 393,175 | 89 | 436,336 | 91 |
| Switzerland | | | | | | 46,301 | 11 | 40,709 | 9 |
| **Total assets** | | | | | | 439,476 | 100 | 477,045 | 100 |

## Note 18 Structured debt instruments

The table below provides a breakdown of financial liabilities designated at fair value that are considered structured debt instruments.

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Fixed-rate bonds with structured features | 1,778 | 3,017 |
| Structured debt instruments issued: | | |
| Equity-linked | 29,648 | 30,236 |
| Rates-linked | 10,013 | 16,118 |
| Credit-linked | 2,444 | 2,949 |
| Commodities-linked[1] | 1,949 | 1,075 |
| FX-linked | 826 | 218 |
| Structured over-the-counter (OTC) debt instruments | 5,149 | 4,491 |
| **Total financial liabilities designated at fair value** | 51,806 | 58,104 |

1 Includes precious metals-linked debt instruments issued.

In addition to financial liabilities designated at fair value, certain structured debt instruments were reported within the balance sheet lines *Due to banks, Due to customers* and *Bonds issued.* These instruments were bifurcated for measurement purposes. As of 31 December 2016, the total carrying value of the host instruments was CHF 5,197 million (31 December 2015: CHF 3,624 million) and the total carrying value of the bifurcated embedded derivatives was positive CHF 116 million (31 December 2015: negative CHF 60 million).

## Note 19a Share capital

### UBS AG shares

UBS AG's share capital consists of fully paid up registered issued shares with a par value of CHF 0.10, which entitle the holder to one vote at the UBS AG shareholders' meeting, if entered into the share register as having the right to vote, as well as a proportionate share of distributed dividends. UBS AG does not apply any restrictions or limitations on the transferability of shares.

As of 31 December 2016, shares issued by UBS AG totaled 3,858,408,466 shares (unchanged from 31 December 2015) that were all dividend bearing and held by UBS Group AG.

Additionally, as of 31 December 2016, 516,200,312 registered shares with a par value of CHF 0.10 each were available to be issued out of conditional capital (31 December 2015: 552,352,759).

During 2016, there were no new share issuances out of conditional capital. During 2015, shares issued by UBS AG increased by 13,847,553 shares due to the issuance of new UBS AG shares out of conditional share capital upon distribution of a share dividend in May 2015.

### Non-distributable reserves

Non-distributable reserves consist of 50% of the share capital of UBS AG, amounting to CHF 193 million as of 31 December 2016 (unchanged from 31 December 2015).

## Note 19b Significant shareholders

The sole direct shareholder of UBS AG is UBS Group AG, which holds 100% of UBS AG shares. These shares are entitled to voting rights. Indirect shareholders of UBS AG included in the table below comprise direct shareholders of UBS Group AG (acting in their own name or in their capacity as nominees for other investors or beneficial owners) that were registered in the UBS Group AG share register with 3% or more of the share capital of UBS Group AG as of 31 December 2016 or as of 31 December 2015. The shares and share capital of UBS AG held by indirect shareholders represent their relative holding of UBS Group AG shares. They do not have voting rights in UBS AG.

→ **Refer to Note 23 to the UBS Group AG standalone financial statements in the UBS Group AG Annual Report 2016 for more information on significant shareholders of UBS Group AG**

| | 31.12.16 | | 31.12.15 | |
|---|---|---|---|---|
| *CHF million, except where indicated* | Share capital held | Shares held (%) | Share capital held | Shares held (%) |
| **Significant direct shareholder of UBS AG** | | | | |
| UBS Group AG | 386 | 100 | 386 | 100 |
| **Significant indirect shareholders of UBS AG** | | | | |
| Chase Nominees Ltd., London | 36 | 9 | 35 | 9 |
| GIC Private Limited, Singapore | | | 25 | 6 |
| DTC (Cede & Co.), New York[1] | 26 | 7 | 24 | 6 |
| Nortrust Nominees Ltd., London | 15 | 4 | 14 | 4 |

1 DTC (Cede & Co.), New York, "The Depository Trust Company," is a US securities clearing organization.

## Note 20 Swiss pension plan and non-Swiss defined benefit plans

### a) Liabilities related to Swiss pension plan and non-Swiss defined benefit plans

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Provision for Swiss pension plan | 0 | 0 |
| Net defined benefit liabilities for non-Swiss defined benefit plans[1] | 697 | 129 |
| Total provision for Swiss pension plan and net defined benefit liabilities for non-Swiss defined benefit plans | 697 | 129 |
| Bank accounts at UBS and UBS debt instruments held by Swiss pension fund | 220 | 260 |
| UBS derivative financial instruments held by Swiss pension fund | 47 | 27 |
| **Total liabilities related to Swiss pension plan and non-Swiss defined benefit plans** | 964 | 416 |

1 As of 31 December 2016, CHF 529 million related to the UK defined benefit pension plan and CHF 26 million related to the UK post-employment medical insurance plan. As of 31 December 2015, CHF 25 million related to the UK post-employment medical insurance plan. The UK defined benefit pension plan was in a surplus situation as of 31 December 2015.

### b) Swiss pension plan

| | As of or for the year ended | |
|---|---|---|
| *CHF million* | 31.12.16 | 31.12.15 |
| Pension plan surplus[1] | 2,508 | 2,243 |
| Economic benefit / (obligation) of UBS AG | 0 | 0 |
| Change in economic benefit / obligation recognized in the income statement | 0 | 0 |
| Employer contributions in the period recognized in the income statement | 216 | 270 |
| Performance awards-related employer contributions accrued | 21 | 30 |
| **Total pension expense recognized in the income statement within Personnel expenses** | 238 | 300 |

1 The pension plan surplus is determined in accordance with FER 26 and consists of the reserve for the fluctuation in asset value. The surplus did not represent an economic benefit for UBS AG in accordance with FER 16 both as of 31 December 2016 and 31 December 2015.

UBS AG has elected to apply FER 16 for its Swiss pension plan and IFRS (IAS 19) for its UK and other non-Swiss defined benefit plans. However, remeasurements of the defined benefit obligations for UK and other non-Swiss defined benefit plans are recognized in the income statement rather than directly in equity.

→ **Refer to Note 2 for more information**

→ **Refer to Note 26 to the UBS AG consolidated financial statements in the UBS Group AG and UBS AG Annual Report 2016 for more information on non-Swiss defined benefit plans in accordance with IAS 19**

The Swiss pension plan had no employer contribution reserve both as of 31 December 2016 and 31 December 2015.

## Note 21 Share-based compensation

Expenses for awards under employee share, option, notional fund and deferred cash compensation plans granted to UBS AG employees are generally charged by UBS Group AG to UBS AG. Obligations related to other compensation vehicles, such as defined benefit pension plans and other local awards, are held by the relevant employing and / or sponsoring subsidiaries, such as UBS AG.

→ **Refer to Note 27 to the UBS AG consolidated financial statements in the UBS Group AG and UBS AG Annual Report 2016 for more information**

## Note 22 Related parties

Transactions with related parties are conducted at internally agreed transfer prices, at arm's length, or with respect to loans, fixed advances and mortgages to non-independent members of the Board of Directors and Group Executive Board members on the same terms and conditions that are available to other employees.

| | 31.12.16 | | 31.12.15 | |
|---|---|---|---|---|
| *CHF million* | Amounts due from | Amounts due to | Amounts due from | Amounts due to |
| Qualified shareholders[1] | 522 | 8,536 | 581 | 5,776 |
| *of which: due from / to customers* | *505* | *7,865* | *567* | *5,171* |
| Subsidiaries | 94,171 | 59,553 | 119,900 | 87,059 |
| *of which: due from / to banks* | *36,151* | *25,256* | *37,278* | *28,685* |
| *of which: due from / to customers* | *33,994* | *2,272* | *23,308* | *8,558* |
| *of which: receivables / payables from securities financing transactions* | *19,029* | *25,114* | *54,422* | *44,149* |
| Affiliated entities[2] | 121 | 17,476 | 117 | 5,752 |
| *of which: due from / to customers* | *108* | *17,291* | *39* | *5,699* |
| Members of the Board of Directors and Group Executive Board | 41 | | 33 | |
| External auditors | | 11 | | 20 |
| Other related parties[3] | 8 | | 9 | |

1 The qualified shareholder of UBS AG is UBS Group AG. 2 Affiliated entities of UBS AG are all direct subsidiaries of UBS Group AG. 3 Primarily relates to SIX Group AG, in which UBS AG has a 17.3% equity interest.

As of 31 December 2016, off-balance sheet positions related to subsidiaries amounted to CHF 24.8 billion (31 December 2015: CHF 26.5 billion), of which CHF 17.5 billion were guarantees to third parties (31 December 2015: CHF 19.4 billion) and CHF 4.5 billion were loan commitments (31 December 2015: CHF 5.3 billion).

## Note 23 Fiduciary transactions

| *CHF million* | 31.12.16 | 31.12.15 |
|---|---|---|
| Fiduciary deposits | 349 | 310 |
| *of which: placed with third-party banks* | *349* | *310* |
| *of which: placed with subsidiaries and affiliated entities* | *0* | *0* |
| **Total fiduciary transactions** | 349 | 310 |

Fiduciary transactions encompass transactions entered into or granted by UBS AG that result in holding or placing assets on behalf of individuals, trusts, defined benefit plans and other institutions. Unless the recognition criteria for the assets are satisfied, these assets and the related income are excluded from UBS AG's balance sheet and income statement, but disclosed in this Note as off-balance sheet fiduciary transactions. Client deposits that are initially placed as fiduciary transactions with UBS AG may be recognized on UBS AG's balance sheet in situations in which the deposit is subsequently placed within UBS AG. In such cases, these deposits are not reported in the table above.

## Note 24a Invested assets and net new money

| | For the year ended | |
|---|---|---|
| *CHF billion* | 31.12.16 | 31.12.15 |
| Fund assets managed | 12 | 11 |
| Discretionary assets | 168 | 166 |
| Other invested assets | 329 | 311 |
| **Total invested assets** | 509 | 488 |
| *of which: double count* | *3* | *2* |
| **Net new money** | 17.2 | 0.0 |

## Note 24b Development of invested assets

| | For the year ended | |
|---|---|---|
| *CHF billion* | 31.12.16 | 31.12.15 |
| Total invested assets at the beginning of the year[1] | 488 | 1,076 |
| Net new money | 17 | 0 |
| Market movements[2] | 17 | 8 |
| Foreign currency translation | 0 | (29) |
| Transfer to UBS Switzerland AG | | (557) |
| Other effects | (13) | (10) |
| *of which: acquisitions / (divestments)* | *(12)* | *(10)* |
| **Total invested assets at the end of the year[1]** | 509 | 488 |

1 Includes double counts. 2 Includes interest and dividend income.

→ **Refer to Note 33 to the UBS AG consolidated financial statements in the UBS Group AG and UBS AG Annual Report 2016 for more information**

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To the General Meeting of
UBS AG, Zurich and Basel

Basel, 2 March 2017

## Report of the statutory auditor on the financial statements

As statutory auditor, we have audited the financial statements of UBS AG, which comprise the balance sheet, income statement and notes (pages 1 to 21), for the year ended 31 December 2016.

**Board of Directors' responsibility**
The Board of Directors is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the company's articles of incorporation. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

**Auditor's responsibility**
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion**
In our opinion, the financial statements for the year ended 31 December 2016 comply with Swiss law and the company's articles of incorporation.

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**Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority**

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the financial statements.

**Valuation of complex or illiquid trading portfolio assets and liabilities and other financial assets, financial liabilities and derivative financial instruments held at fair value**

| | |
|---|---|
| **Area of focus** | We focused on this area because of the complexity and judgments and assumptions over the fair valuation of assets and liabilities with unobservable inputs. We have continued to focus on market developments in fair value methodologies and specifically on UBS AG's higher estimation uncertainty products and valuation adjustments. See notes 12 and 13 to the UBS AG financial statements on pages 13 and 14. |
| **Our audit response** | We tested the design and operating effectiveness of UBS AG key controls over the financial instrument valuation processes, including controls over market data inputs into valuation models, model governance and valuation adjustments. We tested a sample of the valuation models and the inputs used in those models, using a variety of techniques, including comparing inputs to available market data. We selected a sample of positions and independently determined estimated values and compared the values to those recorded by UBS AG. In addition, we evaluated the methodology and inputs used by UBS AG in determining valuation adjustments. |

**Valuation of investments in subsidiaries and other participations**

| | |
|---|---|
| **Area of focus** | We focused on this area because of the judgments and assumptions over the valuation of the investments in subsidiaries and other participations. Investments in subsidiaries and other participations comprise directly held equity interests. The relevant accounting policies of UBS AG are described in note 2 to the financial statements on page 6. |
| **Our audit response** | We tested the design and operating effectiveness of UBS AG key controls over the valuation of investments in subsidiaries and other participations. Our audit work included testing the valuation models and the data and assumptions used in those models. |

**Legal provision and contingent liabilities**

| | |
|---|---|
| **Area of focus** | We focused on this area because UBS AG operates in a legal and regulatory environment that is exposed to significant litigation and similar risks arising from disputes and regulatory proceedings. Such matters are subject to many uncertainties and the outcome may be difficult to predict. These uncertainties inherently affect the amount and timing of potential outflows with respect to the provisions which have been established and contingent liabilities. Overall, the legal provision should represent the best estimate of UBS AG for existing legal matters that have a probable and estimable impact on the financial position of UBS AG. See note 11b to the UBS AG financial statements on page 12. |
| **Our audit response** | We tested the design and operational effectiveness of UBS AG key controls over the legal provision and contingencies process. We assessed the methodology on which the estimate of the provision amounts are based, recalculated the provisions, and tested the completeness and accuracy of the underlying information. We read the legal analyses that support the judgmental aspects impacted by legal interpretations. We obtained correspondence directly from external legal counsel to corroborate the information provided by UBS AG and followed up directly with external counsel as deemed necessary. |

**IT Controls relevant to financial reporting**

| | |
|---|---|
| **Area of focus** | We focused on this area because UBS AG is highly dependent on its IT systems for business processes and financial reporting. UBS AG continues to invest in its IT systems to meet client needs and business requirements including the effectiveness of its logical access and change management IT controls. |
| **Our audit response** | In assessing the reliability of electronic data processing, we included specialized IT auditors as part of our audit team. Our audit procedures focused on the IT infrastructure and applications relevant to financial reporting including testing of the design and operating effectiveness of key IT general controls and IT automated controls. Our audit procedures related to logical access included testing of user access management, privileged user access, periodic access right recertifications and user authentication controls. |

**Report on other legal requirements**

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a para. 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

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We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

Ernst & Young Ltd

Marie-Laure Delarue
Licensed audit expert
(Auditor in charge)

Bruno Patusi
Licensed audit expert

## Appendix 4 – Excerpts from the UBS Group First Quarter 2017 Report

It should be noted that the term "pro-forma" as used in this Appendix 4 does not refer to the term "pro forma financial information" within the meaning of Regulation (EC) 809/2004.

# UBS Group AG interim consolidated financial statements (unaudited)

## Income statement

| | | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million, except per share data* | Note | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Interest income | | 3,352 | 3,523 | 3,407 | (5) | (2) |
| Interest expense | | (1,656) | (1,761) | (1,695) | (6) | (2) |
| Net interest income | | 1,696 | 1,762 | 1,712 | (4) | (1) |
| Credit loss (expense) / recovery | | 0 | (24) | (3) | (100) | (100) |
| Net interest income after credit loss expense | | 1,696 | 1,738 | 1,709 | (2) | (1) |
| Net fee and commission income | 3 | 4,353 | 4,161 | 4,093 | 5 | 6 |
| Net trading income | | 1,440 | 946 | 1,013 | 52 | 42 |
| Other income | 4 | 43 | 209 | 17 | (79) | 153 |
| Total operating income | | 7,532 | 7,055 | 6,833 | 7 | 10 |
| Personnel expenses | 5 | 4,060 | 3,868 | 3,924 | 5 | 3 |
| General and administrative expenses | 6 | 1,506 | 2,165 | 1,664 | (30) | (9) |
| Depreciation and impairment of property, equipment and software | | 255 | 255 | 243 | 0 | 5 |
| Amortization and impairment of intangible assets | | 21 | 21 | 23 | 0 | (9) |
| Total operating expenses | | 5,842 | 6,308 | 5,855 | (7) | 0 |
| Operating profit / (loss) before tax | | 1,690 | 746 | 978 | 127 | 73 |
| Tax expense / (benefit) | 7 | 375 | 109 | 270 | 244 | 39 |
| Net profit / (loss) | | 1,315 | 637 | 708 | 106 | 86 |
| Net profit / (loss) attributable to non-controlling interests | | 47 | 1 | 0 | | |
| **Net profit / (loss) attributable to shareholders** | | 1,269 | 636 | 707 | 100 | 79 |

**Earnings per share (CHF)**

| | | | | | | |
|---|---|---|---|---|---|---|
| Basic | 8 | 0.34 | 0.17 | 0.19 | 100 | 79 |
| Diluted | 8 | 0.33 | 0.17 | 0.18 | 94 | 83 |

## Statement of comprehensive income

| | For the quarter ended | | |
|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 |
| **Comprehensive income attributable to shareholders** | | | |
| Net profit / (loss) | 1,269 | 636 | 707 |
| **Other comprehensive income that may be reclassified to the income statement** | | | |
| **Foreign currency translation** | | | |
| Foreign currency translation movements, before tax | (371) | 1,066 | (953) |
| Foreign exchange amounts reclassified to the income statement from equity | 4 | (27) | 123 |
| Income tax relating to foreign currency translation movements | 2 | (194) | 5 |
| Subtotal foreign currency translation, net of tax | (365) | 845 | (825) |
| **Financial assets available for sale** | | | |
| Net unrealized gains / (losses) on financial assets available for sale, before tax | 44 | (135) | 253 |
| Impairment charges reclassified to the income statement from equity | 14 | 0 | 0 |
| Realized gains reclassified to the income statement from equity | (8) | (98) | (89) |
| Realized losses reclassified to the income statement from equity | 2 | 7 | 13 |
| Income tax relating to net unrealized gains / (losses) on financial assets available for sale | (8) | 81 | (46) |
| Subtotal financial assets available for sale, net of tax | 43 | (145) | 131 |
| **Cash flow hedges** | | | |
| Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax | (30) | (1,024) | 944 |
| Net (gains) / losses reclassified to the income statement from equity | (220) | (270) | (303) |
| Income tax relating to cash flow hedges | 52 | 261 | (127) |
| Subtotal cash flow hedges, net of tax | (198) | (1,033) | 513 |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | (520) | (334) | (181) |
| **Other comprehensive income that will not be reclassified to the income statement** | | | |
| **Defined benefit plans** | | | |
| Gains / (losses) on defined benefit plans, before tax | 49 | (301) | (191) |
| Income tax relating to defined benefit plans | 2 | 68 | 12 |
| Subtotal defined benefit plans, net of tax | 51 | (234) | (179) |
| **Own credit on financial liabilities designated at fair value** | | | |
| Gains / (losses) from own credit on financial liabilities designated at fair value, before tax | (181) | 15 | 68 |
| Income tax relating to own credit on financial liabilities designated at fair value | 0 | 0 | (16) |
| Subtotal own credit on financial liabilities designated at fair value, net of tax | (181) | 15 | 52 |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | (129) | (219) | (127) |
| **Total other comprehensive income** | (649) | (553) | (308) |
| **Total comprehensive income attributable to shareholders** | 620 | 83 | 399 |

## Statement of comprehensive income (continued)

| | For the quarter ended | | |
|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 |
| **Comprehensive income attributable to non-controlling interests** | | | |
| Net profit / (loss) | 47 | 1 | 0 |
| **Other comprehensive income that will not be reclassified to the income statement** | | | |
| Foreign currency translation movements, before tax | 0 | (13) | (50) |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | 0 | (13) | (50) |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 0 | (13) | (50) |
| Total comprehensive income attributable to non-controlling interests | 47 | (12) | (50) |
| **Total comprehensive income** | | | |
| Net profit / (loss) | 1,315 | 637 | 708 |
| Other comprehensive income | (649) | (566) | (358) |
| *of which: other comprehensive income that may be reclassified to the income statement* | *(520)* | *(334)* | *(181)* |
| *of which: other comprehensive income that will not be reclassified to the income statement* | *(129)* | *(232)* | *(177)* |
| Total comprehensive income | 666 | 71 | 349 |

## Balance sheet

| | | | | % change from |
|---|---|---|---|---|
| *CHF million* | Note | 31.3.17 | 31.12.16 | 31.12.16 |
| **Assets** | | | | |
| Cash and balances with central banks | | 108,931 | 107,767 | 1 |
| Due from banks | | 14,222 | 13,156 | 8 |
| Cash collateral on securities borrowed | | 18,512 | 15,111 | 23 |
| Reverse repurchase agreements | | 77,004 | 66,246 | 16 |
| Trading portfolio assets | 9 | 107,211 | 96,575 | 11 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | | *30,346* | *30,260* | *0* |
| Positive replacement values | 9, 10 | 121,549 | 158,411 | (23) |
| Cash collateral receivables on derivative instruments | 10 | 22,522 | 26,664 | (16) |
| Loans | | 309,115 | 306,325 | 1 |
| Financial assets designated at fair value | 9 | 49,114 | 65,353 | (25) |
| Financial assets available for sale | 9 | 16,235 | 15,676 | 4 |
| Financial assets held to maturity | | 8,962 | 9,289 | (4) |
| Investments in associates | | 977 | 963 | 1 |
| Property, equipment and software | | 8,368 | 8,331 | 0 |
| Goodwill and intangible assets | | 6,458 | 6,556 | (1) |
| Deferred tax assets | | 12,927 | 13,155 | (2) |
| Other assets | 11 | 27,500 | 25,436 | 8 |
| **Total assets** | | 909,608 | 935,016 | (3) |

**Balance sheet (continued)**

| *CHF million* | Note | 31.3.17 | 31.12.16 | % change from 31.12.16 |
|---|---|---|---|---|
| **Liabilities** | | | | |
| Due to banks | | 8,747 | 10,645 | (18) |
| Cash collateral on securities lent | | 3,067 | 2,818 | 9 |
| Repurchase agreements | | 10,621 | 6,612 | 61 |
| Trading portfolio liabilities | 9 | 28,576 | 22,824 | 25 |
| Negative replacement values | 9, 10 | 119,964 | 153,810 | (22) |
| Cash collateral payables on derivative instruments | 10 | 29,875 | 35,472 | (16) |
| Due to customers | | 419,356 | 423,672 | (1) |
| Financial liabilities designated at fair value | 9, 12 | 56,640 | 55,017 | 3 |
| Debt issued | 13 | 114,725 | 103,649 | 11 |
| Provisions | 14 | 3,757 | 4,174 | (10) |
| Other liabilities | 11 | 59,939 | 62,020 | (3) |
| **Total liabilities** | | 855,268 | 880,714 | (3) |
| **Equity** | | | | |
| Share capital | | 385 | 385 | 0 |
| Share premium | | 27,637 | 28,254 | (2) |
| Treasury shares | | (2,211) | (2,249) | (2) |
| Retained earnings | | 32,864 | 31,725 | 4 |
| Other comprehensive income recognized directly in equity, net of tax | | (5,014) | (4,494) | 12 |
| **Equity attributable to shareholders** | | 53,661 | 53,621 | 0 |
| Equity attributable to non-controlling interests | | 679 | 682 | 0 |
| **Total equity** | | 54,340 | 54,302 | 0 |
| **Total liabilities and equity** | | 909,608 | 935,016 | (3) |

## Statement of changes in equity

| *CHF million* | Share capital | Share premium | Treasury shares | Retained earnings |
|---|---|---|---|---|
| **Balance as of 1 January 2016** | **385** | **31,164** | **(1,693)** | **29,504** |
| Issuance of share capital | 0 | | | |
| Acquisition of treasury shares | | | (1,117) | |
| Delivery of treasury shares under share-based compensation plans | | (628) | 661 | |
| Other disposal of treasury shares | | | 11 | |
| Premium on shares issued and warrants exercised | | 2 | | |
| Share-based compensation expensed in the income statement | | 188 | | |
| Tax (expense) / benefit | | 15 | | |
| Dividends | | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | 43 | | (43) |
| Total comprehensive income for the period | | | | 580 |
| *of which: net profit / (loss)* | | | | *707* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *(179)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | | *52* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| **Balance as of 31 March 2016** | **385** | **30,784** | **(2,138)** | **30,041** |
| | | | | |
| **Balance as of 1 January 2017** | 385 | 28,254 | (2,249) | 31,725 |
| Issuance of share capital | 0 | | | |
| Acquisition of treasury shares | | | (820) | |
| Delivery of treasury shares under share-based compensation plans | | (804) | 853 | |
| Other disposal of treasury shares | | 0 | 5 | |
| Premium on shares issued and warrants exercised | | 4 | | |
| Share-based compensation expensed in the income statement | | 174 | | |
| Tax (expense) / benefit | | 12 | | |
| Dividends | | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (3) | | |
| Total comprehensive income for the period | | | | 1,139 |
| *of which: net profit / (loss)* | | | | *1,269* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *51* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | | *(181)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| **Balance as of 31 March 2017** | 385 | 27,637 | (2,211) | 32,864 |

1 Excludes defined benefit plans and own credit that are recorded directly in Retained earnings.

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: foreign currency translation* | *of which: financial assets available for sale* | *of which: cash flow hedges* | Total equity attributable to shareholders | Non-controlling interests | Total equity |
|---:|---:|---:|---:|---:|---:|---:|
| **(4,047)** | *(5,857)* | *172* | *1,638* | **55,313** | **1,995** | **57,308** |
| | | | | 0 | | 0 |
| | | | | (1,117) | | (1,117) |
| | | | | 33 | | 33 |
| | | | | 11 | | 11 |
| | | | | 2 | | 2 |
| | | | | 188 | | 188 |
| | | | | 15 | | 15 |
| | | | | 0 | (5) | (5) |
| | | | | 0 | 0 | 0 |
| (181) | *(825)* | *131* | *513* | 399 | (50) | 349 |
| | | | | *707* | *0* | *708* |
| *(181)* | *(825)* | *131* | *513* | *(181)* | | *(181)* |
| | | | | *(179)* | | *(179)* |
| | | | | *52* | | *52* |
| | | | | *0* | *(50)* | *(50)* |
| **(4,228)** | *(6,682)* | *303* | *2,151* | **54,845** | **1,941** | **56,786** |
| | | | | | | |
| (4,494) | *(5,564)* | *98* | *972* | 53,621 | 682 | 54,302 |
| | | | | 0 | | 0 |
| | | | | (820) | | (820) |
| | | | | 49 | | 49 |
| | | | | 5 | | 5 |
| | | | | 4 | | 4 |
| | | | | 174 | | 174 |
| | | | | 12 | | 12 |
| | | | | 0 | (50) | (50) |
| | | | | (3) | 1 | (2) |
| (520) | *(365)* | *43* | *(198)* | 620 | 47 | 666 |
| | | | | *1,269* | *47* | *1,315* |
| *(520)* | *(365)* | *43* | *(198)* | *(520)* | | *(520)* |
| | | | | *51* | | *51* |
| | | | | *(181)* | | *(181)* |
| | | | | *0* | *0* | *0* |
| (5,014) | *(5,930)* | *141* | *774* | 53,661 | 679 | 54,340 |

## Statement of cash flows

| | Year-to-date | |
|---|---|---|
| *CHF million* | 31.3.17 | 31.3.16 |
| **Cash flow from / (used in) operating activities** | | |
| Net profit / (loss) | 1,315 | 708 |
| Non-cash items included in net profit and other adjustments: | | |
| Depreciation and impairment of property, equipment and software | 255 | 243 |
| Amortization and impairment of intangible assets | 21 | 23 |
| Credit loss expense / (recovery) | 0 | 3 |
| Share of net profits of associates | (19) | (18) |
| Deferred tax expense / (benefit) | 131 | 93 |
| Net loss / (gain) from investing activities | 141 | 779 |
| Net loss / (gain) from financing activities | 449 | 612 |
| Other net adjustments | (560) | (899) |
| Net change in operating assets and liabilities: | | |
| Due from / to banks | (2,192) | (13) |
| Cash collateral on securities borrowed and reverse repurchase agreements | (14,427) | (16,074) |
| Cash collateral on securities lent and repurchase agreements | 4,204 | (3,941) |
| Trading portfolio and replacement values | (2,048) | 22,774 |
| Financial assets designated at fair value | 16,603 | (35,242) |
| Cash collateral on derivative instruments | (1,396) | (2,404) |
| Loans | (3,508) | 3,048 |
| Due to customers | (3,364) | 15,759 |
| Other assets, provisions and other liabilities | (4,279) | (1,268) |
| Income taxes paid, net of refunds | (52) | (63) |
| Net cash flow from / (used in) operating activities | (8,726) | (15,880) |
| **Cash flow from / (used in) investing activities** | | |
| Purchase of subsidiaries, associates and intangible assets | (1) | 0 |
| Disposal of subsidiaries, associates and intangible assets[1] | 3 | 1 |
| Purchase of property, equipment and software | (315) | (432) |
| Disposal of property, equipment and software | 23 | 4 |
| Purchase of financial assets available for sale | (2,227) | (5,597) |
| Disposal and redemption of financial assets available for sale | 2,102 | 36,045 |
| Net (purchase) / redemption of financial assets held to maturity | 199 | (2,889) |
| Net cash flow from / (used in) investing activities | (215) | 27,133 |

Table continues on the next page.

## Statement of cash flows (continued)

Table continued from previous page.

| | Year-to-date | |
|---|---|---|
| *CHF million* | 31.3.17 | 31.3.16 |
| **Cash flow from / (used in) financing activities** | | |
| Net short-term debt issued / (repaid) | 9,432 | 9,814 |
| Net movements in treasury shares and own equity derivative activity | (786) | (1,072) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 14,195 | 15,904 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (10,803) | (17,057) |
| Net changes in non-controlling interests and preferred notes | (4) | (5) |
| **Net cash flow from / (used in) financing activities** | 12,033 | 7,583 |
| **Total cash flow** | | |
| **Cash and cash equivalents at the beginning of the period** | 121,138 | 103,044 |
| Net cash flow from / (used in) operating, investing and financing activities | 3,093 | 18,835 |
| Effects of exchange rate differences on cash and cash equivalents | (55) | (2,298) |
| **Cash and cash equivalents at the end of the period[2]** | 124,175 | 119,582 |
| *of which: cash and balances with central banks* | *108,931* | *105,710* |
| *of which: due from banks* | *12,669* | *12,805* |
| *of which: money market paper[3]* | *2,576* | *1,068* |
| **Additional information** | | |
| Net cash flow from / (used in) operating activities includes: | | |
| Interest received in cash | 2,718 | 2,932 |
| Interest paid in cash | 1,605 | 1,488 |
| Dividends on equity investments, investment funds and associates received in cash[4] | 436 | 426 |

1 Includes dividends received from associates. 2 CHF 2,314 million and CHF 3,837 million of cash and cash equivalents (mainly reflected in Due from banks) were restricted as of 31 March 2017 and 31 March 2016. Refer to Note 23 in the Annual Report 2016 for more information. 3 Money market paper is included in the balance sheet under Trading portfolio assets, Financial assets available for sale and Financial assets designated at fair value. 4 Includes dividends received from associates reported within cash flow from / (used in) investing activities.

# Notes to the UBS Group AG interim consolidated financial statements (unaudited)

## Note 1 Basis of accounting

The consolidated financial statements (the Financial Statements) of UBS Group AG and its subsidiaries (together "UBS" or "the Group") are prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), and are presented in Swiss francs (CHF), which is also the functional currency of UBS Group AG and UBS AG. These interim Financial Statements are prepared in accordance with IAS 34, *Interim Financial Reporting*.

In preparing these interim Financial Statements, the same accounting policies and methods of computation have been applied as in the UBS Group AG consolidated annual Financial Statements for the period ended 31 December 2016, except for the changes described below. These interim Financial Statements are unaudited and should be read in conjunction with UBS Group AG's audited consolidated Financial Statements included in the Annual Report 2016. In the opinion of management, all necessary adjustments were made for a fair presentation of the Group's financial position, results of operations and cash flows.

Preparation of these interim Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities. These estimates and assumptions are based on the best available information. Actual results in the future could differ from such estimates and such differences may be material to the Financial Statements. Revisions to estimates, based on regular reviews, are recognized in the period in which they occur. For more information on areas of estimation uncertainty considered to require critical judgment, refer to "Note 1a Significant accounting policies" in the "Consolidated financial statements" section of the Annual Report 2016.

### Presentation of interest income and expense on derivatives designated as hedging instruments

Effective 1 January 2017, UBS refined the presentation of interest income and interest expense on derivatives designated as hedging instruments in effective hedge relationships, to align the presentation with interest arising from designated hedged items. As a result, first quarter *Interest income* and *Interest expense* was lower by CHF 149 million, with no change to *Net interest income*. Prior-period information has not been restated, as the effect is not material.

### Amendments to IAS 7, *Statement of Cash Flows*

Amendments to IAS 7, *Statement of Cash Flows*, effective for annual periods beginning on 1 January 2017, require UBS to explain changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes. UBS will provide this specific disclosure for the first time in its Annual Report 2017. Information on liabilities and funding management is provided in the "Balance sheet, liquidity and funding management" section of this report.

### Amendments to IAS 12, *Income Taxes*

In the first quarter of 2017, UBS adopted amendments to IAS 12, *Income Taxes*, that clarify how to account for deferred tax assets related to debt instruments measured at fair value. The adoption of these amendments did not have a material impact on its financial statements.

### Net interest and trading income

Beginning in the first quarter of 2017, UBS no longer includes the "Net interest and trading income" Note disclosure in its interim financial statements. Information on net interest and trading income continues to be provided in the "Group performance" section of this report. Also, Note 2 provides information on *Net interest income* and *Non-interest income*. The "Net interest and trading income" Note disclosure will continue to be included in UBS's Annual Report.

## Note 2 Segment reporting

UBS's businesses are organized globally into five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank, all of which are supported by Corporate Center. The five business divisions qualify as reportable segments for the purpose of segment reporting and, together with Corporate Center and its units, reflect the management structure of the Group. Corporate Center – Non-core and Legacy Portfolio is managed and reported as a separate reportable segment within Corporate Center. Refer to "Note 1a item 2 Segment reporting" and "Note 2 Segment reporting" in the "Consolidated financial statements" section of the Annual Report 2016 for more information on the Group's reporting segments.

| | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center | | | UBS |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | | | | | | Services | Group ALM | Non-core and Legacy Portfolio | |
| For the quarter ended 31 March 2017 | | | | | | | | | |
| Net interest income | 489 | 375 | 457 | (7) | 383 | (74) | 66 | 6 | 1,696 |
| Non-interest income | 1,368 | 1,644 | 435 | 452 | 1,806 | 26 | 87 | 16 | 5,836 |
| Allocations from Group ALM | 71 | 32 | 59 | 5 | (86) | 30 | (88) | (23) | 0 |
| Income | 1,929 | 2,051 | 951 | 450 | 2,104 | (18) | 65 | 0 | 7,532 |
| Credit loss (expense) / recovery | (1) | (1) | 7 | 0 | (6) | 0 | 0 | 0 | 0 |
| Total operating income | 1,929 | 2,051 | 958 | 450 | 2,098 | (18) | 65 | 0 | 7,532 |
| Personnel expenses | 596 | 1,283 | 213 | 162 | 818 | 966 | 8 | 15 | 4,060 |
| General and administrative expenses | 131 | 144 | 59 | 57 | 130 | 965 | 4 | 17 | 1,506 |
| Services (to) / from CC and other BDs | 562 | 311 | 265 | 127 | 665 | (1,981) | (10) | 61 | 0 |
| *of which: services from CC – Services* | *536* | *308* | *292* | *135* | *641* | *(1,993)* | *29* | *51* | *0* |
| Depreciation and impairment of property, equipment and software | 0 | 1 | 3 | 0 | 3 | 249 | 0 | 0 | 255 |
| Amortization and impairment of intangible assets | 1 | 11 | 0 | 1 | 3 | 5 | 0 | 0 | 21 |
| Total operating expenses[1] | 1,290 | 1,749 | 540 | 347 | 1,619 | 204 | 2 | 93 | 5,842 |
| **Operating profit / (loss) before tax** | **639** | **301** | **418** | **103** | **480** | **(222)** | **63** | **(93)** | **1,690** |
| Tax expense / (benefit) | | | | | | | | | 375 |
| **Net profit / (loss)** | | | | | | | | | **1,315** |
| As of 31 March 2017 | | | | | | | | | |
| **Total assets** | **116,723** | **64,451** | **138,693** | **12,354** | **228,614** | **23,449** | **265,124** | **60,199** | **909,608** |
| **For the quarter ended 31 March 2016[2]** | | | | | | | | | |
| Net interest income | 474 | 327 | 477 | (7) | 312 | (89) | 226 | (6) | 1,712 |
| Non-interest income | 1,305 | 1,542 | 392 | 474 | 1,624 | 14 | (211) | (15) | 5,123 |
| Allocations from Group ALM | 106 | 21 | 94 | 3 | (59) | 21 | (164) | (22) | 0 |
| Income | 1,885 | 1,891 | 963 | 468 | 1,877 | (55) | (150) | (44) | 6,835 |
| Credit loss (expense) / recovery | 0 | (1) | 0 | 0 | 2 | 0 | 0 | (3) | (3) |
| Total operating income | 1,885 | 1,889 | 963 | 468 | 1,879 | (55) | (150) | (47) | 6,833 |
| Personnel expenses | 615 | 1,202 | 213 | 183 | 728 | 968 | 8 | 7 | 3,924 |
| General and administrative expenses | 128 | 144 | 61 | 57 | 170 | 1,042 | 3 | 60 | 1,664 |
| Services (to) / from CC and other BDs | 583 | 318 | 287 | 137 | 718 | (2,099) | (13) | 69 | 0 |
| *of which: services from CC – Services* | *562* | *315* | *311* | *142* | *691* | *(2,105)* | *29* | *56* | *0* |
| Depreciation and impairment of property, equipment and software | 1 | 0 | 4 | 0 | 6 | 232 | 0 | 0 | 243 |
| Amortization and impairment of intangible assets | 1 | 13 | 0 | 1 | 3 | 5 | 0 | 0 | 23 |
| Total operating expenses[1] | 1,327 | 1,678 | 564 | 378 | 1,625 | 148 | (2) | 135 | 5,855 |
| **Operating profit / (loss) before tax** | **557** | **211** | **399** | **90** | **253** | **(203)** | **(148)** | **(183)** | **978** |
| Tax expense / (benefit) | | | | | | | | | 270 |
| **Net profit / (loss)** | | | | | | | | | **708** |
| **As of 31 December 2016** | | | | | | | | | |
| **Total assets** | **115,539** | **65,882** | **139,912** | **12,028** | **242,302** | **23,669** | **267,200** | **68,485** | **935,016** |

1 Refer to Note 16 for information on restructuring expenses. 2 Figures in this table may differ from those originally published in quarterly and annual reports due to adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.

## Note 3 Net fee and commission income

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Underwriting fees | 359 | 230 | 221 | 56 | 62 |
| *of which: equity underwriting fees* | *238* | *142* | *113* | *68* | *111* |
| *of which: debt underwriting fees* | *121* | *89* | *107* | *36* | *13* |
| M&A and corporate finance fees | 177 | 256 | 139 | (31) | 27 |
| Brokerage fees | 942 | 852 | 966 | 11 | (2) |
| Investment fund fees | 814 | 788 | 814 | 3 | 0 |
| Portfolio management and advisory fees | 2,038 | 2,069 | 1,966 | (1) | 4 |
| Other | 460 | 427 | 426 | 8 | 8 |
| Total fee and commission income | 4,789 | 4,622 | 4,533 | 4 | 6 |
| Brokerage fees paid | 166 | 195 | 197 | (15) | (16) |
| Other | 271 | 266 | 242 | 2 | 12 |
| Total fee and commission expense | 436 | 461 | 440 | (5) | (1) |
| Net fee and commission income | 4,353 | 4,161 | 4,093 | 5 | 6 |
| *of which: net brokerage fees* | *776* | *657* | *769* | *18* | *1* |

## Note 4 Other income

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Associates and subsidiaries | | | | | |
| Net gains / (losses) from disposals of subsidiaries[1] | (4) | 27 | (123) | | (97) |
| Share of net profits of associates | 19 | 17 | 18 | 12 | 6 |
| Total | 15 | 44 | (104) | (66) | |
| Financial assets available for sale | | | | | |
| Net gains / (losses) from disposals | 6 | 92 | 76 | (93) | (92) |
| Impairment charges | (14) | 0 | 0 | | |
| Total | (8) | 91 | 76 | | |
| Net income from properties (excluding net gains / (losses) from disposals)[2] | 6 | 6 | 7 | 0 | (14) |
| Net gains / (losses) from disposals of properties held for sale | 0 | 5 | 0 | (100) | |
| Net gains / (losses) from disposals of loans and receivables | 17 | 1 | (1) | | |
| Other | 12 | 62 | 40 | (81) | (70) |
| Total other income | 43 | 209 | 17 | (79) | 153 |

1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to disposed foreign subsidiaries and branches. 2 Includes net rent received from third parties and net operating expenses.

## Note 5 Personnel expenses

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Salaries and variable compensation | 2,443 | 2,311 | 2,360 | 6 | 4 |
| Wealth Management Americas: Financial advisor compensation[1] | 987 | 964 | 909 | 2 | 9 |
| Contractors | 93 | 99 | 101 | (6) | (8) |
| Social security | 202 | 191 | 184 | 6 | 10 |
| Pension and other post-employment benefit plans | 199 | 163 | 199 | 22 | 0 |
| Other personnel expenses | 136 | 140 | 172 | (3) | (21) |
| **Total personnel expenses[2]** | 4,060 | 3,868 | 3,924 | 5 | 3 |

1 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated on the basis of financial advisor productivity, firm tenure, assets and other variables. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. 2 Includes restructuring expenses. Refer to Note 16 for more information.

## Note 6 General and administrative expenses

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Occupancy | 221 | 250 | 234 | (12) | (6) |
| Rent and maintenance of IT and other equipment | 144 | 132 | 140 | 9 | 3 |
| Communication and market data services | 155 | 149 | 166 | 4 | (7) |
| Administration[1] | 99 | 310 | 138 | (68) | (28) |
| Marketing and public relations | 92 | 137 | 99 | (33) | (7) |
| Travel and entertainment | 88 | 104 | 118 | (15) | (25) |
| Professional fees | 256 | 363 | 278 | (29) | (8) |
| Outsourcing of IT and other services | 383 | 428 | 435 | (11) | (12) |
| Provisions for litigation, regulatory and similar matters[2] | 33 | 264 | 39 | (88) | (15) |
| Other | 34 | 28 | 16 | 21 | 113 |
| **Total general and administrative expenses[3]** | 1,506 | 2,165 | 1,664 | (30) | (9) |

1 Administration costs include net expenses related to the UK bank levy (first quarter of 2017: credit of CHF 25 million; fourth quarter of 2016: expense of CHF 132 million). 2 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. Refer to Note 14 for more information. Also includes recoveries from third parties (first quarter of 2017: CHF 1 million; fourth quarter of 2016: CHF 10 million; first quarter of 2016: CHF 3 million). 3 Includes restructuring expenses. Refer to Note 16 for more information.

## Note 7 Income taxes

The Group recognized an income tax expense of CHF 375 million for the first quarter of 2017 compared with an income tax expense of CHF 270 million for the first quarter of 2016.

The current tax expense was CHF 244 million compared with CHF 177 million in the same quarter a year earlier and related to taxable profits of UBS Switzerland AG and other legal entities in the UBS Group.

Deferred tax expenses were CHF 131 million in the first quarter of 2017 compared with CHF 93 million in the first quarter of 2016 and mainly related to the amortization of deferred tax assets previously recognized in relation to Swiss tax losses carried forward and deductible temporary differences to reflect their offset against profits for the quarter.

The interim Financial Statements have been prepared on the basis that UBS Limited is able to offset part of its taxable profits against losses transferred from UBS AG. During 2016, the UK tax authorities indicated that they do not agree with this tax return filing position. If the authorities ultimately prevail on this point, UBS Limited would incur a further reduction in recognized deferred tax assets of approximately CHF 60 million, as well as additional current tax expenses for periods from 2014 onward of approximately CHF 80 million.

## Note 8 Earnings per share (EPS) and shares outstanding

| | As of or for the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| **Basic earnings (CHF million)** | | | | | |
| Net profit / (loss) attributable to shareholders | 1,269 | 636 | 707 | 100 | 79 |
| **Diluted earnings (CHF million)** | | | | | |
| Net profit / (loss) attributable to shareholders | 1,269 | 636 | 707 | 100 | 79 |
| Less: (profit) / loss on own equity derivative contracts | 0 | 0 | (1) | | (100) |
| Net profit / (loss) attributable to shareholders for diluted EPS | 1,269 | 636 | 706 | 100 | 80 |
| **Weighted average shares outstanding** | | | | | |
| Weighted average shares outstanding for basic EPS | 3,712,946,691 | 3,710,293,020 | 3,741,452,190 | 0 | (1) |
| Effect of dilutive potential shares resulting from notional shares, in-the-money options and warrants outstanding | 123,710,692 | 117,440,186 | 98,451,157 | 5 | 26 |
| Weighted average shares outstanding for diluted EPS | 3,836,657,383 | 3,827,733,206 | 3,839,903,347 | 0 | 0 |
| **Earnings per share (CHF)** | | | | | |
| Basic | 0.34 | 0.17 | 0.19 | 100 | 79 |
| Diluted | 0.33 | 0.17 | 0.18 | 94 | 83 |
| **Shares outstanding** | | | | | |
| Shares issued | 3,851,255,128 | 3,850,766,389 | 3,850,069,401 | 0 | 0 |
| Treasury shares | 137,116,350 | 138,441,772 | 129,605,209 | (1) | 6 |
| Shares outstanding | 3,714,138,778 | 3,712,324,617 | 3,720,464,192 | 0 | 0 |

The table below outlines the potential shares that could dilute basic earnings per share in the future, but were not dilutive for the periods presented.

| | | | | % change from | |
|---|---|---|---|---|---|
| *Number of shares* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| **Potentially dilutive instruments** | | | | | |
| Employee share-based compensation awards | 31,976,718 | 46,981,698 | 54,091,948 | (32) | (41) |
| Other equity derivative contracts | 9,117,655 | 8,374,439 | 10,619,640 | 9 | (14) |
| **Total** | 41,094,373 | 55,356,137 | 64,711,588 | (26) | (36) |

## Note 9 Fair value measurement

This Note provides fair value measurement information for both financial and non-financial instruments and should be read in conjunction with "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016, which provides more information on valuation principles, valuation governance, valuation techniques, valuation adjustments, fair value hierarchy classification, valuation inputs, sensitivity of fair value measurements and methods applied to calculate fair values for financial instruments not measured at fair value.

## Note 9 Fair value measurement (continued)

### a) Fair value hierarchy

The fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value is summarized in the table below.

**Determination of fair values from quoted market prices or valuation techniques[1]**

| | 31.3.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Assets measured at fair value on a recurring basis** | | | | | | | | |
| Financial assets held for trading[2] | 83,728 | 17,405 | 1,474 | 102,607 | 76,044 | 14,292 | 1,689 | 92,025 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *11,977* | *1,584* | *0* | *13,561* | *10,500* | *1,319* | *0* | *11,820* |
| *Corporate and municipal bonds* | *164* | *8,419* | *703* | *9,287* | *58* | *6,638* | *591* | *7,287* |
| *Loans* | *0* | *1,852* | *448* | *2,300* | *0* | *1,356* | *681* | *2,037* |
| *Investment fund units* | *4,441* | *3,783* | *20* | *8,244* | *6,114* | *3,521* | *63* | *9,698* |
| *Asset-backed securities* | *0* | *462* | *219* | *681* | *0* | *470* | *215* | *685* |
| *Equity instruments* | *58,398* | *684* | *9* | *59,092* | *50,913* | *397* | *65* | *51,375* |
| *Financial assets for unit-linked investment contracts* | *8,747* | *621* | *74* | *9,441* | *8,459* | *591* | *74* | *9,123* |
| Positive replacement values | 598 | 118,669 | 2,282 | 121,549 | 434 | 155,428 | 2,549 | 158,411 |
| *of which:* | | | | | | | | |
| *Interest rate contracts* | *0* | *53,168* | *168* | *53,336* | *8* | *57,703* | *278* | *57,988* |
| *Credit derivative contracts* | *0* | *2,329* | *1,166* | *3,495* | *0* | *2,562* | *1,313* | *3,875* |
| *Foreign exchange contracts* | *313* | *45,036* | *202* | *45,551* | *263* | *75,607* | *222* | *76,092* |
| *Equity / index contracts* | *1* | *16,649* | *731* | *17,381* | *1* | *17,274* | *729* | *18,003* |
| *Commodity contracts* | *0* | *1,455* | *9* | *1,464* | *0* | *2,269* | *8* | *2,277* |
| Financial assets designated at fair value | 23,081 | 24,445 | 1,588 | 49,114 | 39,641 | 23,632 | 2,079 | 65,353 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *22,093* | *3,460* | *0* | *25,552* | *39,439* | *4,361* | *0* | *43,799* |
| *Corporate and municipal bonds* | *809* | *18,595* | *0* | *19,404* | *15* | *16,860* | *0* | *16,875* |
| *Loans (including structured loans)* | *0* | *2,013* | *578* | *2,591* | *0* | *2,043* | *1,195* | *3,238* |
| *Structured reverse repurchase and securities borrowing agreements* | *0* | *22* | *731* | *753* | *0* | *40* | *644* | *684* |
| *Other* | *179* | *355* | *280* | *814* | *187* | *329* | *240* | *756* |
| Financial assets available for sale | 7,782 | 7,908 | 546 | 16,235 | 6,299 | 8,891 | 486 | 15,676 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *5,518* | *267* | *0* | *5,785* | *5,444* | *450* | *0* | *5,894* |
| *Corporate and municipal bonds* | *2,089* | *3,953* | *12* | *6,053* | *646* | *4,939* | *12* | *5,596* |
| *Investment fund units* | *0* | *69* | *122* | *191* | *0* | *51* | *126* | *177* |
| *Asset-backed securities* | *0* | *3,539* | *0* | *3,539* | *0* | *3,381* | *0* | *3,381* |
| *Equity instruments* | *170* | *81* | *400* | *651* | *204* | *71* | *336* | *611* |
| Non-financial assets | | | | | | | | |
| Precious metals and other physical commodities | 4,628 | 0 | 0 | 4,628 | 4,583 | 0 | 0 | 4,583 |
| **Assets measured at fair value on a non-recurring basis** | | | | | | | | |
| Other assets[3] | 5,009 | 123 | 35 | 5,167 | 5,060 | 131 | 56 | 5,248 |
| **Total assets measured at fair value** | 124,825 | 168,551 | 5,925 | 299,302 | 132,062 | 202,377 | 6,860 | 341,298 |

## Note 9 Fair value measurement (continued)

**Determination of fair values from quoted market prices or valuation techniques (continued)[1]**

| | 31.3.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Liabilities measured at fair value on a recurring basis** | | | | | | | | |
| Trading portfolio liabilities | 23,422 | 5,027 | 128 | 28,576 | 18,807 | 3,898 | 119 | 22,824 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *7,438* | *501* | *0* | *7,939* | *5,573* | *648* | *0* | *6,221* |
| *Corporate and municipal bonds* | *97* | *4,194* | *38* | *4,329* | *12* | *2,927* | *37* | *2,976* |
| *Investment fund units* | *603* | *154* | *0* | *757* | *484* | *91* | *20* | *595* |
| *Equity instruments* | *15,284* | *176* | *89* | *15,549* | *12,738* | *227* | *62* | *13,026* |
| Negative replacement values | 608 | 115,784 | 3,572 | 119,964 | 539 | 149,255 | 4,016 | 153,810 |
| *of which:* | | | | | | | | |
| *Interest rate contracts* | *0* | *46,013* | *362* | *46,376* | *12* | *51,990* | *475* | *52,476* |
| *Credit derivative contracts* | *0* | *2,860* | *1,504* | *4,364* | *0* | *3,269* | *1,538* | *4,807* |
| *Foreign exchange contracts* | *341* | *45,354* | *149* | *45,844* | *274* | *71,668* | *148* | *72,089* |
| *Equity / index contracts* | *0* | *20,336* | *1,550* | *21,886* | *1* | *20,254* | *1,854* | *22,109* |
| *Commodity contracts* | *0* | *1,182* | *1* | *1,183* | *0* | *2,040* | *1* | *2,041* |
| Financial liabilities designated at fair value | 3 | 44,250 | 12,386 | 56,640 | 2 | 44,007 | 11,008 | 55,017 |
| *of which:* | | | | | | | | |
| *Issued debt instruments* | *2* | *40,406* | *10,232* | *50,640* | *0* | *40,242* | *9,688* | *49,930* |
| *Over-the-counter debt instruments* | *2* | *3,709* | *1,861* | *5,572* | *2* | *3,611* | *1,050* | *4,663* |
| *Structured repurchase agreements* | *0* | *122* | *288* | *410* | *0* | *130* | *266* | *395* |
| *Loan commitments and guarantees* | *0* | *12* | *5* | *18* | *0* | *25* | *5* | *29* |
| Other liabilities – amounts due under unit-linked investment contracts | 0 | 9,579 | 0 | 9,579 | 0 | 9,286 | 0 | 9,286 |
| **Liabilities measured at fair value on a non-recurring basis** | | | | | | | | |
| Other liabilities[3] | 0 | 5,052 | 0 | 5,052 | 0 | 5,213 | 0 | 5,213 |
| **Total liabilities measured at fair value** | 24,033 | 179,692 | 16,086 | 219,812 | 19,347 | 211,660 | 15,143 | 246,150 |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 31 March 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 45 million (of which CHF 55 million were net Level 2 assets and CHF 10 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 31 December 2016, net bifurcated embedded derivative assets held at fair value totaling CHF 50 million (of which CHF 58 million were net Level 2 assets and CHF 8 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. 2 Financial assets held for trading do not include precious metals and other physical commodities. 3 Other assets and other liabilities primarily consist of assets held for sale as well as assets and liabilities of a disposal group held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell. Refer to Note 16 for more information.

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which the instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
- Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data or
- Level 3 – valuation techniques for which significant inputs are not based on observable market data.

## Note 9 Fair value measurement (continued)

### b) Valuation adjustments

#### Day-1 reserves

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period.

Deferred day-1 profit or loss is generally released into *Net trading income* when pricing of equivalent products or the underlying parameters become observable or when the transaction is closed out.

**Deferred day-1 profit or loss**

| | For the quarter ended | | |
|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 |
| **Balance at the beginning of the period** | 371 | 403 | 421 |
| Profit / (loss) deferred on new transactions | 51 | 26 | 123 |
| (Profit) / loss recognized in the income statement | (53) | (74) | (58) |
| Foreign currency translation | (3) | 15 | (13) |
| **Balance at the end of the period** | 365 | 371 | 474 |

### c) Transfers between Level 1 and Level 2

The amounts disclosed reflect transfers between Level 1 and Level 2 for instruments that were held for the entire reporting period.

Assets totaling approximately CHF 1.0 billion, which were mainly comprised of financial assets designated at fair value and financial assets available for sale, primarily corporate and municipal bonds, were transferred from Level 2 to Level 1 during the first three months of 2017, generally due to increased levels of trading activity observed within the market. Liabilities transferred from Level 2 to Level 1 during the first three months of 2017 were negligible. Furthermore, there were no significant transfers from Level 1 to Level 2 recorded during the first three months of 2017.

## Note 9 Fair value measurement (continued)

### d) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities together with the valuation techniques used to measure fair value, the significant inputs used in the valuation technique that are considered unobservable and a range of values for those unobservable inputs.

The range of values represents the highest and lowest level input used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input, but rather the different underlying characteristics of the relevant assets and liabilities. The ranges and weighted averages will vary from period to period and from parameter to parameter based on characteristics of the instruments held at each balance sheet date. Further, the ranges and weighted averages of unobservable inputs may differ across other financial institutions due to the diversity of the products in each firm's inventory.

The significant unobservable inputs disclosed in the table below are generally consistent with those included in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016. A description of the potential effect that a change in each unobservable input in isolation may have on a fair value measurement, including information to facilitate an understanding of factors that give rise to the input ranges shown, is also provided in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016.

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 31.3.17 | | | 31.12.16 | | | |
| *CHF billion* | 31.3.17 | 31.12.16 | 31.3.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Financial assets held for trading / Trading portfolio liabilities, Financial assets / liabilities designated at fair value and Financial assets available for sale** | | | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.7* | *0.6* | *0.0* | *0.0* | Relative value to market comparable | Bond price equivalent | 0 | 128 | 86 | 0 | 128 | 88 | points |
| *Traded loans, loans designated at fair value, loan commitments and guarantees* | *1.2* | *2.0* | *0.0* | *0.0* | Relative value to market comparable | Loan price equivalent | 82 | 100 | 94 | 39 | 103 | 94 | points |
| | | | | | Discounted expected cash flows | Credit spread | 43 | 454 | | 71 | 554 | | basis points |
| | | | | | Market comparable and securitization model | Discount margin | 0 | 15 | 2 | 0 | 16 | 2 | % |
| *Structured (reverse) repurchase agreements* | *0.7* | *0.6* | *0.3* | *0.3* | Discounted expected cash flows | Funding spread | 15 | 198 | | 15 | 195 | | basis points |
| *Issued and OTC debt instruments[3]* | | | *12.1* | *10.7* | | | | | | | | | |

## Note 9 Fair value measurement (continued)

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities (continued)**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 31.3.17 | | | 31.12.16 | | | |
| *CHF billion* | 31.3.17 | 31.12.16 | 31.3.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Replacement values** | | | | | | | | | | | | | |
| *Interest rate contracts* | *0.2* | *0.3* | *0.4* | *0.5* | Option model | Volatility of interest rates | 25 | 267 | | 26 | 176 | | % |
| | | | | | | Rate-to-rate correlation | 84 | 94 | | 84 | 94 | | % |
| | | | | | | Intra-curve correlation | 36 | 94 | | 36 | 94 | | % |
| *Credit derivative contracts* | *1.2* | *1.3* | *1.5* | *1.5* | Discounted expected cash flow based on modeled defaults and recoveries | Credit spreads | 0 | 668 | | 0 | 791 | | basis points |
| | | | | | | Upfront price points | 3 | 21 | | 1 | 13 | | % |
| | | | | | | Recovery rates | 0 | 50 | | 0 | 50 | | % |
| | | | | | | Credit index correlation | 10 | 85 | | 10 | 85 | | % |
| | | | | | | Discount margin | (6) | 12 | | (1) | 68 | | % |
| | | | | | | Credit pair correlation | 59 | 84 | | 59 | 100 | | % |
| | | | | | Discounted cash flow projection on underlying bond | Constant prepayment rate | 1 | 25 | | 1 | 15 | | % |
| | | | | | | Constant default rate | 1 | 7 | | 1 | 8 | | % |
| | | | | | | Loss severity | 40 | 100 | | 40 | 100 | | % |
| | | | | | | Discount margin | 0 | 11 | | 0 | 11 | | % |
| | | | | | | Bond price equivalent | 3 | 109 | | 3 | 100 | | points |
| *Equity / index contracts* | *0.7* | *0.7* | *1.6* | *1.9* | Option model | Equity dividend yields | 0 | 20 | | 0 | 15 | | % |
| | | | | | | Volatility of equity stocks, equity and other indices | 0 | 202 | | 0 | 150 | | % |
| | | | | | | Equity-to-FX correlation | (45) | 82 | | (45) | 82 | | % |
| | | | | | | Equity-to-equity correlation | (31) | 97 | | 12 | 98 | | % |

1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par (e.g., 100 points would be 100% of par). 2 Weighted averages are provided for non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to derivative contracts as this would not be meaningful. 3 Valuation techniques, significant unobservable inputs and the respective input ranges for issued debt instruments and OTC debt instruments are the same as the equivalent derivative or structured financing instruments presented elsewhere in this table.

## Note 9 Fair value measurement (continued)

### e) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible alternative assumptions would change fair value significantly, and the estimated effect thereof.

The table shown presents the favorable and unfavorable effects for each class of financial assets and liabilities for which the potential change in fair value is considered significant. The sensitivity data presented represent an estimation of valuation uncertainty based on reasonably possible alternative values for Level 3 inputs at the balance sheet date and does not represent the estimated effect of stress scenarios. Typically, these financial assets and liabilities are sensitive to a combination of inputs from Levels 1 through 3. Although well-defined interdependencies may exist between Levels 1–2 and Level 3 parameters (e.g., between interest rates, which are generally Level 1 or Level 2, and prepayments, which are generally Level 3), these have not been incorporated in the table. Further, direct interrelationships between the Level 3 parameters are not a significant element of the valuation uncertainty.

**Sensitivity of fair value measurements to changes in unobservable input assumptions**

| | 31.3.17 | | 31.12.16 | |
|---|---|---|---|---|
| *CHF million* | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] |
| Corporate and municipal bonds | 35 | (30) | 34 | (39) |
| Traded loans, loans designated at fair value, loan commitments and guarantees | 78 | (7) | 82 | (10) |
| Equity instruments | 70 | (50) | 67 | (47) |
| Interest rate derivative contracts, net | 28 | (31) | 41 | (42) |
| Credit derivative contracts, net | 114 | (147) | 131 | (183) |
| Foreign exchange derivative contracts, net | 11 | (6) | 17 | (8) |
| Equity / index derivative contracts, net | 61 | (65) | 63 | (63) |
| Issued debt instruments | 81 | (81) | 96 | (93) |
| Other | 21 | (26) | 29 | (31) |
| **Total** | 499 | (442) | 560 | (517) |

1 Of the total favorable changes, CHF 76 million as of 31 March 2017 (31 December 2016: CHF 75 million) related to financial assets available for sale. Of the total unfavorable changes, CHF 55 million as of 31 March 2017 (31 December 2016: CHF 55 million) related to financial assets available for sale.

**Note 9 Fair value measurement (continued)**

## f) Level 3 instruments: movements during the period

### Significant changes in Level 3 instruments

The table on the following pages presents additional information about Level 3 assets and liabilities measured at fair value on a recurring basis. Level 3 assets and liabilities may be hedged with instruments classified as Level 1 or Level 2 in the fair value hierarchy and, as a result, realized and unrealized gains and losses included in the table may not include the effect of related hedging activity. Furthermore, the realized and unrealized gains and losses presented within the table are not limited solely to those arising from Level 3 inputs, as valuations are generally derived from both observable and unobservable parameters.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Assets transferred into and out of Level 3 totaled CHF 0.3 billion and CHF 0.6 billion, respectively. Transfers into Level 3 were primarily comprised of interest rate derivative contracts and were mainly due to decreased observability of the respective rates volatility inputs. Transfers out of Level 3 were primarily comprised of credit derivative contracts and loans, reflecting increased observability of the respective credit spread inputs.

Liabilities transferred into and out of Level 3 totaled CHF 0.9 billion and CHF 1.9 billion, respectively. Transfers into Level 3 were primarily comprised of equity- and credit-linked issued debt instruments, due to decreased observability of the respective equity volatility and credit spread inputs used to determine the fair value of the options embedded in these structures. Transfers out of Level 3 were primarily comprised of equity-linked issued debt instruments and equity / index derivative contracts resulting from changes in the availability of the observable equity volatility inputs used to determine the fair value of the options embedded in these structures.

## Note 9 Fair value measurement (continued)

**Movements of Level 3 instruments**

| | | Total gains / losses included in comprehensive income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF billion* | **Balance as of 31 December 2015** | Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | **Balance as of 31 March 2016** |
| **Financial assets held for trading** | **2.1** | **0.2** | ***0.2*** | **0.5** | **(1.0)** | **1.2** | **0.0** | **0.4** | **(0.2)** | **(0.1)** | **3.1** |
| *of which:* | | | | | | | | | | | |
| *Corporate bonds and municipal bonds, including bonds issued by financial institutions* | *0.7* | *0.1* | *0.1* | *0.4* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *1.0* |
| *Loans* | *0.8* | *0.0* | *0.0* | *0.0* | *(0.7)* | *1.2* | *0.0* | *0.0* | *(0.1)* | *(0.1)* | *1.2* |
| *Asset-backed securities* | *0.2* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* | *0.2* |
| *Other* | *0.4* | *0.2* | *0.1* | *0.1* | *(0.2)* | *0.0* | *0.0* | *0.2* | *0.0* | *0.0* | *0.6* |
| **Financial assets designated at fair value** | **3.3** | **(0.2)** | ***(0.2)*** | **0.0** | **0.0** | **0.2** | **(0.2)** | **0.4** | **(0.1)** | **(0.1)** | **3.3** |
| *of which:* | | | | | | | | | | | |
| *Loans (including structured loans)* | *1.7* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.2* | *(0.1)* | *0.4* | *(0.1)* | *(0.1)* | *1.7* |
| *Structured reverse repurchase and securities borrowing agreements* | *1.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *1.4* |
| *Other* | *0.1* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* |
| **Financial assets available for sale** | **0.7** | **0.0** | ***0.0*** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.7** |
| **Positive replacement values** | **2.9** | **(0.5)** | ***(0.6)*** | **0.0** | **0.0** | **0.3** | **(0.7)** | **0.4** | **(0.3)** | **(0.1)** | **2.0** |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.1* | *(0.2)* | *0.0* | *0.8* |
| *Foreign exchange contracts* | *0.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.4* |
| *Equity / index contracts* | *1.0* | *(0.3)* | *(0.3)* | *0.0* | *0.0* | *0.1* | *(0.2)* | *0.1* | *(0.1)* | *0.0* | *0.7* |
| *Other* | *0.1* | *(0.3)* | *(0.3)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.2* | *0.0* | *0.0* | *0.1* |
| **Negative replacement values** | **3.3** | **(0.4)** | ***(0.5)*** | **0.0** | **0.0** | **0.7** | **(0.9)** | **0.5** | **(0.2)** | **0.0** | **3.1** |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.2* | *0.1* | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.1* | *0.0* | *0.0* | *1.3* |
| *Foreign exchange contracts* | *0.2* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* |
| *Equity / index contracts* | *1.4* | *(0.3)* | *(0.4)* | *0.0* | *0.0* | *0.7* | *(0.4)* | *0.0* | *(0.1)* | *0.0* | *1.3* |
| *Other* | *0.3* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.4* | *0.0* | *0.0* | *0.3* |
| **Financial liabilities designated at fair value** | **10.7** | **0.1** | ***0.1*** | **0.0** | **0.0** | **1.7** | **(0.6)** | **0.3** | **(1.1)** | **(0.3)** | **10.7** |
| *of which:* | | | | | | | | | | | |
| *Issued debt instruments* | *9.3* | *0.1* | *0.1* | *0.0* | *0.0* | *0.9* | *(0.5)* | *0.3* | *(1.1)* | *(0.3)* | *8.8* |
| *Over-the-counter debt instruments* | *0.8* | *0.0* | *0.0* | *0.0* | *0.0* | *0.8* | *(0.1)* | *0.0* | *0.0* | *0.0* | *1.4* |
| *Structured repurchase agreements* | *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.6* |

1 Total Level 3 assets as of 31 March 2017 were CHF 5.9 billion (31 December 2016: CHF 6.9 billion). Total Level 3 liabilities as of 31 March 2017 were CHF 16.1 billion (31 December 2016: CHF 15.1 billion).

## Note 9 Fair value measurement (continued)

| | Total gains / losses included in comprehensive income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | Balance as of 31 March 2017[1] |
| 1.7 | 0.1 | 0.0 | 0.3 | (1.1) | 0.6 | 0.0 | 0.1 | (0.2) | 0.0 | 1.5 |
| | | | | | | | | | | |
| 0.6 | 0.1 | 0.1 | 0.1 | (0.1) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| 0.7 | 0.0 | 0.0 | 0.1 | (0.9) | 0.6 | 0.0 | 0.0 | (0.1) | 0.0 | 0.4 |
| 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| 0.2 | (0.1) | (0.1) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 2.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 | (1.0) | 0.0 | (0.1) | 0.0 | 1.6 |
| | | | | | | | | | | |
| 1.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | (0.7) | 0.0 | (0.1) | 0.0 | 0.6 |
| 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | (0.3) | 0.0 | 0.0 | 0.0 | 0.7 |
| 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| 2.5 | (0.3) | (0.1) | 0.0 | 0.0 | 1.1 | (0.9) | 0.2 | (0.3) | 0.0 | 2.3 |
| | | | | | | | | | | |
| 1.3 | (0.1) | 0.1 | 0.0 | 0.0 | 0.9 | (0.7) | 0.1 | (0.2) | 0.0 | 1.2 |
| 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | (0.1) | 0.0 | (0.1) | 0.0 | 0.7 |
| 0.3 | (0.2) | (0.2) | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | (0.1) | 0.0 | 0.2 |
| 4.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.5 | (0.3) | 0.0 | (0.7) | 0.0 | 3.6 |
| | | | | | | | | | | |
| 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | (0.3) | 0.0 | 1.5 |
| 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 1.9 | 0.1 | 0.1 | 0.0 | 0.0 | 0.2 | (0.3) | 0.0 | (0.4) | 0.0 | 1.6 |
| 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | (0.1) | 0.0 | 0.4 |
| 11.0 | 1.0 | 0.8 | 0.0 | 0.0 | 2.5 | (1.7) | 0.8 | (1.1) | (0.1) | 12.4 |
| | | | | | | | | | | |
| 9.7 | 0.7 | 0.6 | 0.0 | 0.0 | 1.4 | (1.1) | 0.6 | (1.1) | (0.1) | 10.2 |
| 1.1 | 0.3 | 0.2 | 0.0 | 0.0 | 0.8 | (0.4) | 0.1 | 0.0 | 0.0 | 1.9 |
| 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | (0.3) | 0.0 | 0.0 | 0.0 | 0.3 |

**Note 9 Fair value measurement (continued)**

## g) Financial instruments not measured at fair value

The table below reflects the estimated fair values of financial instruments not measured at fair value.

**Financial instruments not measured at fair value**

| | 31.3.17 | | 31.12.16 | |
|---|---|---|---|---|
| *CHF billion* | Carrying value | Fair value | Carrying value | Fair value |
| **Assets** | | | | |
| Cash and balances with central banks | 108.9 | 108.9 | 107.8 | 107.8 |
| Due from banks | 14.2 | 14.2 | 13.2 | 13.2 |
| Cash collateral on securities borrowed | 18.5 | 18.5 | 15.1 | 15.1 |
| Reverse repurchase agreements | 77.0 | 77.0 | 66.2 | 66.2 |
| Cash collateral receivables on derivative instruments | 22.5 | 22.5 | 26.7 | 26.7 |
| Loans | 309.1 | 311.9 | 306.3 | 309.7 |
| Financial assets held to maturity | 9.0 | 8.8 | 9.3 | 9.1 |
| Other assets | 20.8 | 20.8 | 18.5 | 18.5 |
| **Liabilities** | | | | |
| Due to banks | 8.7 | 8.7 | 10.6 | 10.6 |
| Cash collateral on securities lent | 3.1 | 3.1 | 2.8 | 2.8 |
| Repurchase agreements | 10.6 | 10.6 | 6.6 | 6.6 |
| Cash collateral payables on derivative instruments | 29.9 | 29.9 | 35.5 | 35.5 |
| Due to customers | 419.4 | 419.4 | 423.7 | 423.7 |
| Debt issued | 114.8 | 117.9 | 103.7 | 106.1 |
| Other liabilities | 37.7 | 37.7 | 38.3 | 38.4 |

The fair values included in the table above were calculated for disclosure purposes only. The fair value valuation techniques and assumptions relate only to the fair value of UBS's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimation, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another.

## Note 10 Derivative instruments

### a) Derivative instruments

| *As of 31.3.17, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 53.3 | 1,099 | 46.4 | 1,018 | 10,344 |
| Credit derivative contracts | 3.5 | 126 | 4.4 | 132 | 2 |
| Foreign exchange contracts | 45.6 | 2,645 | 45.8 | 2,579 | 12 |
| Equity / index contracts | 17.4 | 293 | 21.9 | 360 | 68 |
| Commodity contracts | 1.5 | 35 | 1.2 | 29 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.2 | 34 | 0.2 | 20 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 26 | 0.2 | 24 | |
| **Total derivative instruments, based on IFRS netting[4]** | 121.5 | 4,259 | 120.0 | 4,162 | 10,435 |
| Further netting potential not recognized on the balance sheet[5] | (107.9) | | (100.9) | | |
| *of which: netting of recognized financial liabilities / assets* | *(86.4)* | | *(86.4)* | | |
| *of which: netting with collateral received / pledged* | *(21.6)* | | *(14.5)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 13.6 | | 19.1 | | |

| *As of 31.12.16, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 58.0 | 1,152 | 52.5 | 1,060 | 9,730 |
| Credit derivative contracts | 3.9 | 123 | 4.8 | 140 | |
| Foreign exchange contracts | 76.1 | 2,470 | 72.1 | 2,286 | 6 |
| Equity / index contracts | 18.0 | 269 | 22.1 | 318 | 55 |
| Commodity contracts | 2.3 | 39 | 2.0 | 36 | 9 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.1 | 18 | 0.1 | 10 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.1 | 13 | 0.2 | 11 | |
| **Total derivative instruments, based on IFRS netting[4]** | 158.4 | 4,084 | 153.8 | 3,860 | 9,799 |
| Further netting potential not recognized on the balance sheet[5] | (139.8) | | (129.6) | | |
| *of which: netting of recognized financial liabilities / assets* | *(113.1)* | | *(113.1)* | | |
| *of which: netting with collateral received / pledged* | *(26.7)* | | *(16.6)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 18.6 | | 24.2 | | |

1 In cases where replacement values are presented on a net basis on the balance sheet, the respective notional values of the netted replacement values are still presented on a gross basis. 2 Other notional values relate to derivatives that are cleared through either a central counterparty or an exchange. The fair value of these derivatives is presented on the balance sheet net of the corresponding cash margin under Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments and was not material for all periods presented. 3 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as replacement values. 4 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously. 5 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 10 Derivative instruments (continued)

### b) Cash collateral on derivative instruments

| *CHF billion* | Receivables 31.3.17 | Payables 31.3.17 | Receivables 31.12.16 | Payables 31.12.16 |
|---|---|---|---|---|
| Cash collateral on derivative instruments, based on IFRS netting[1] | 22.5 | 29.9 | 26.7 | 35.5 |
| Further netting potential not recognized on the balance sheet[2] | (13.2) | (18.1) | (15.1) | (22.2) |
| *of which: netting of recognized financial liabilities / assets* | *(11.6)* | *(16.8)* | *(14.2)* | *(20.8)* |
| *of which: netting with collateral received / pledged* | *(1.6)* | *(1.3)* | *(1.0)* | *(1.4)* |
| **Cash collateral on derivative instruments, after consideration of further netting potential** | 9.3 | 11.8 | 11.5 | 13.3 |

1 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously. Effective 3 January 2017, interest rate swaps and credit derivatives transacted with the Chicago Mercantile Exchange (CME) were legally converted from the previous collateral model to a settlement model resulting in a derecognition of the associated assets and liabilities. Previously, UBS applied IAS 32 netting principles to offset the fair value of CME interest rate swaps with the associated variation margin. Gross cash collateral receivables and payables on derivative instruments and corresponding IAS 32 netting, as presented in "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016, decreased by approximately CHF 13 billion as of 31 March 2017, with no change to net cash collateral receivables and payables on derivative instruments recognized and presented on the balance sheet. 2 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 11 Other assets and liabilities

| *CHF million* | 31.3.17 | 31.12.16 |
|---|---|---|
| **Other assets** | | |
| Prime brokerage receivables[1] | 11,372 | 9,828 |
| Recruitment loans to financial advisors | 2,952 | 3,087 |
| Other loans to financial advisors | 566 | 471 |
| Bail deposit[2] | 1,212 | 1,213 |
| Accrued interest income | 760 | 526 |
| Accrued income – other | 1,093 | 818 |
| Prepaid expenses | 1,073 | 1,010 |
| Settlement and clearing accounts | 499 | 516 |
| VAT and other tax receivables | 252 | 292 |
| Properties and other non-current assets held for sale | 92 | 111 |
| Assets of disposal group held for sale[3] | 5,074 | 5,137 |
| Other | 2,553 | 2,427 |
| **Total other assets** | 27,500 | 25,436 |
| **Other liabilities** | | |
| Prime brokerage payables[1] | 31,496 | 31,973 |
| Amounts due under unit-linked investment contracts | 9,579 | 9,286 |
| Compensation-related liabilities | 5,756 | 7,421 |
| *of which: accrued expenses* | *1,031* | *2,423* |
| *of which: Deferred Contingent Capital Plan* | *1,644* | *1,625* |
| *of which: other deferred compensation plans* | *1,875* | *2,107* |
| *of which: net defined benefit pension and post-employment liabilities* | *1,206* | *1,266* |
| Third-party interest in consolidated investment funds | 385 | 701 |
| Settlement and clearing accounts | 920 | 1,012 |
| Current and deferred tax liabilities | 1,135 | 949 |
| VAT and other tax payables | 499 | 503 |
| Deferred income | 202 | 168 |
| Accrued interest expenses | 1,370 | 1,553 |
| Other accrued expenses | 2,780 | 2,448 |
| Liabilities of disposal group held for sale[3] | 5,052 | 5,213 |
| Other | 764 | 793 |
| **Total other liabilities** | 59,939 | 62,020 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage receivables are mainly comprised of margin lending receivables. Prime brokerage payables are mainly comprised of client securities financing and deposits. 2 Refer to item 1 in Note 14b for more information. 3 Refer to Note 16 for more information.

## Note 12 Financial liabilities designated at fair value

| *CHF million* | 31.3.17 | 31.12.16 |
|---|---|---|
| **Issued debt instruments** | | |
| Equity-linked[1] | 31,802 | 29,831 |
| Rates-linked | 9,379 | 10,150 |
| Credit-linked | 3,888 | 4,101 |
| Fixed-rate | 3,100 | 2,972 |
| Other | 2,471 | 2,875 |
| **Total issued debt instruments** | 50,640 | 49,930 |
| **Over-the-counter debt instruments** | 5,572 | 4,663 |
| **Other** | 428 | 425 |
| **Total** | 56,640 | 55,017 |
| *of which: life-to-date own credit (gain) / loss* | *49* | *(141)* |

1 Includes investment fund unit-linked instruments issued.

## Note 13 Debt issued held at amortized cost

| *CHF million* | 31.3.17 | 31.12.16 |
|---|---|---|
| Certificates of deposit | 28,825 | 20,207 |
| Commercial paper | 1,355 | 1,653 |
| Other short-term debt | 5,186 | 4,318 |
| **Short-term debt[1]** | 35,367 | 26,178 |
| Senior fixed-rate bonds | 26,580 | 27,008 |
| Senior unsecured debt that contributes to total loss-absorbing capacity | 23,531 | 16,890 |
| Covered bonds | 3,829 | 5,836 |
| Subordinated debt | 17,018 | 19,325 |
| *of which: high-trigger loss-absorbing additional tier 1 capital instruments* | *5,330* | *5,429* |
| *of which: low-trigger loss-absorbing additional tier 1 capital instruments* | *2,313* | *2,342* |
| *of which: low-trigger loss-absorbing tier 2 capital instruments* | *8,265* | *10,429* |
| *of which: non-Basel III-compliant tier 2 capital instruments* | *1,109* | *1,125* |
| Debt issued through the central bond institutions of the Swiss regional or cantonal banks | 8,300 | 8,302 |
| Other long-term debt | 100 | 112 |
| **Long-term debt[2]** | 79,359 | 77,472 |
| **Total debt issued held at amortized cost[3]** | 114,725 | 103,649 |

1 Debt with an original maturity of less than one year. 2 Debt with an original maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features. 3 Net of bifurcated embedded derivatives with a net positive fair value of CHF 34 million as of 31 March 2017 (31 December 2016: net positive fair value of CHF 38 million).

## Note 14 Provisions and contingent liabilities

### a) Provisions

| CHF million | Operational risks[1] | Litigation, regulatory and similar matters[2] | Restructuring | Loan commitments and guarantees | Real estate | Employee benefits[5] | Other | Total provisions |
|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | 50 | 3,261 | 498 | 54 | 142 | 77 | 91 | 4,174 |
| Increase in provisions recognized in the income statement | 5 | 45 | 44 | 4 | 0 | 1 | 9 | 109 |
| Release of provisions recognized in the income statement | 0 | (11) | (14) | (1) | (1) | (2) | (4) | (34) |
| Provisions used in conformity with designated purpose | (4) | (341) | (92) | 0 | (3) | 0 | (4) | (445) |
| Reclassifications | 0 | 0 | 0 | (6) | 0 | 0 | 0 | (6) |
| Foreign currency translation / unwind of discount | (2) | (36) | (3) | 0 | (1) | 1 | 0 | (41) |
| **Balance as of 31 March 2017** | 49 | 2,918 | 433[3] | 51 | 138[4] | 76 | 92 | 3,757 |

1 Comprises provisions for losses resulting from security risks and transaction processing risks. 2 Comprises provisions for losses resulting from legal, liability and compliance risks. 3 Consists of personnel related restructuring provisions of CHF 109 million as of 31 March 2017 (31 December 2016: CHF 150 million) and provisions for onerous lease contracts of CHF 324 million as of 31 March 2017 (31 December 2016: CHF 348 million). 4 Consists of reinstatement costs for leasehold improvements of CHF 88 million as of 31 March 2017 (31 December 2016: CHF 87 million) and provisions for onerous lease contracts of CHF 50 million as of 31 March 2017 (31 December 2016: CHF 55 million). 5 Includes provisions for sabbatical and anniversary awards as well as provisions for severance which are not part of restructuring provisions.

Restructuring provisions primarily relate to onerous lease contracts and severance payments. The use of onerous lease provisions is driven by the maturities of the underlying lease contracts. Severance-related provisions are used within a short time period, usually within six months, but potential changes in amount may be triggered when natural staff attrition reduces the number of people affected by a restructuring and therefore the estimated costs.

Information on provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 14b. There are no material contingent liabilities associated with the other classes of provisions.

### b) Litigation, regulatory and similar matters

The Group operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS Group AG and / or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where the Group may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which the Group believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. The Group makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against the Group, but are nevertheless expected to be, based on the Group's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to select matters could be significant.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

**Note 14 Provisions and contingent liabilities (continued)**

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in Note 14a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require us to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although we therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, we believe that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. For example, the Non-Prosecution Agreement (NPA) described in item 5 of this Note, which we entered into with the US Department of Justice (DOJ), Criminal Division, Fraud Section in connection with our submissions of benchmark interest rates, including, among others, the British Bankers' Association London Interbank Offered Rate (LIBOR), was terminated by the DOJ based on its determination that we had committed a US crime in relation to foreign exchange matters. As a consequence, UBS AG pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, paid a USD 203 million fine and is subject to a three-year term of probation. A guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for UBS. Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate our participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining our capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital management" section of this report.

**Provisions for litigation, regulatory and similar matters by business division and Corporate Center unit[1]**

| *CHF million* | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | CC – Services | CC – Group ALM | CC – Non-core and Legacy Portfolio | UBS |
|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | 292 | 425 | 78 | 5 | 616 | 259 | 0 | 1,585 | 3,261 |
| Increase in provisions recognized in the income statement | 5 | 38 | 0 | 0 | 0 | 0 | 0 | 1 | 45 |
| Release of provisions recognized in the income statement | (2) | (5) | (1) | 0 | 0 | (4) | 0 | 0 | (11) |
| Provisions used in conformity with designated purpose | (53) | (68) | 0 | (1) | (206) | 0 | 0 | (13) | (341) |
| Foreign currency translation / unwind of discount | 2 | (7) | 0 | 0 | (7) | 0 | 0 | (24) | (36) |
| **Balance as of 31 March 2017** | 244 | 385 | 77 | 4 | 404 | 255 | 0 | 1,550 | 2,918 |

1 Provisions, if any, for the matters described in this Note are recorded in Wealth Management (item 3), Wealth Management Americas (item 4), the Investment Bank (item 8), CC – Services (item 7) and CC – Non-core and Legacy Portfolio (item 2). Provisions, if any, for the matters described in this Note in items 1 and 6 are allocated between Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in this Note in item 5 are allocated between the Investment Bank, CC – Services and CC – Non-core and Legacy Portfolio.

**Note 14 Provisions and contingent liabilities (continued)**

1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions. It is possible that implementation of automatic tax information exchange and other measures relating to cross-border provision of financial services could give rise to further inquiries in the future. UBS has received disclosure orders from the Swiss Federal Tax Administration (FTA) to transfer information based on requests for international administrative assistance in tax matters. The requests concern a number of UBS account numbers pertaining to current and former clients and are based on data from 2006 and 2008. UBS has taken steps to inform affected clients about the administrative assistance proceedings and their procedural rights, including the right to appeal. The requests are based on data received from the German authorities, who seized certain data related to UBS clients booked in Switzerland during their investigations and have apparently shared this data with other European countries. UBS expects additional countries to file similar requests. In addition, the Swiss Federal Supreme Court ruled in 2016 that the double taxation agreement between the Netherlands and Switzerland provides a sufficient legal basis for an administrative assistance group request without specifying the names of the targeted taxpayers, which makes it more likely that similar requests for administrative assistance will be granted by the FTA.

The Swiss Federal Administrative Court ruled in 2016 that in the administrative assistance proceedings related to a French bulk request, UBS has the right to appeal all final FTA client data disclosure orders.

Since 2013, UBS (France) S.A. and UBS AG and certain former employees have been under investigation in France for alleged complicity in having illicitly solicited clients on French territory and regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons. In connection with this investigation, the investigating judges ordered UBS AG to provide bail ("*caution*") of EUR 1.1 billion and UBS (France) S.A. to post bail of EUR 40 million, which was reduced on appeal to EUR 10 million.

In February 2016, the investigating judges notified UBS AG and UBS (France) S.A. that they have closed their investigation. In July 2016, UBS AG and UBS (France) S.A. received the National Financial Prosecutor's recommendation ("*réquisitoire*"). In March 2017, the investigating judges issued the trial order ("*ordonnance de renvoi*") that charges UBS AG and UBS (France) S.A., as well as various former employees, with illicit solicitation of clients on French territory and with participation in the laundering of the proceeds of tax fraud, and which transfers the case to court.

UBS has been notified by the Belgian investigating judge that it is under formal investigation ("*inculpé*") regarding the laundering of proceeds of tax fraud and of banking, financial solicitation by unauthorized persons and serious tax fraud.

In 2015, UBS received inquiries from the US Attorney's Office for the Eastern District of New York and from the US Securities and Exchange Commission (SEC), which are investigating potential sales to US persons of bearer bonds and other unregistered securities in possible violation of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and the registration requirements of the US securities laws. UBS is cooperating with the authorities in these investigations.

UBS has, and reportedly numerous other financial institutions have, received inquiries from authorities concerning accounts relating to the Fédération Internationale de Football Association (FIFA) and other constituent soccer associations and related persons and entities. UBS is cooperating with authorities in these inquiries.

Our balance sheet at 31 March 2017 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages. A subsidiary of UBS, UBS Real Estate Securities Inc. (UBS RESI), acquired pools of residential mortgage loans from originators and (through an affiliate) deposited them into securitization trusts. In this manner, from 2004 through 2007, UBS RESI sponsored approximately USD 80 billion in RMBS, based on the original principal balances of the securities issued.

**Note 14 Provisions and contingent liabilities (continued)**

UBS RESI also sold pools of loans acquired from originators to third-party purchasers. These whole loan sales during the period 2004 through 2007 totaled approximately USD 19 billion in original principal balance.

We were not a significant originator of US residential loans. A branch of UBS originated approximately USD 1.5 billion in US residential mortgage loans during the period in which it was active from 2006 to 2008, and securitized less than half of these loans.

*RMBS-related lawsuits concerning disclosures:* UBS is named as a defendant relating to its role as underwriter and issuer of RMBS in lawsuits related to approximately USD 1.3 billion in original face amount of RMBS underwritten or issued by UBS. Of the USD 1.3 billion in original face amount of RMBS that remains at issue in these cases, approximately USD 506 million was issued in offerings in which a UBS subsidiary transferred underlying loans (the majority of which were purchased from third-party originators) into a securitization trust and made representations and warranties about those loans (UBS-sponsored RMBS). The remaining USD 807 million of RMBS to which these cases relate was issued by third parties in securitizations in which UBS acted as underwriter (third-party RMBS).

UBS is a defendant in a lawsuit brought by the National Credit Union Administration (NCUA) as conservator for certain failed credit unions, asserting misstatements and omissions in the offering documents for RMBS purchased by the credit unions. The lawsuit was filed in the US District Court for the District of Kansas. The original principal balance at issue in the case is approximately USD 1.15 billion. In April 2017, UBS and the NCUA settled this matter. In the second quarter of 2016, UBS resolved a similar case brought by the NCUA in the US District Court for the Southern District of New York (SDNY) relating to RMBS with an original principal balance of approximately USD 400 million, for a total of approximately USD 69.8 million, in addition to reasonable attorneys' fees incurred by the NCUA.

UBS has indemnification rights against surviving third-party issuers or originators for losses or liabilities incurred by UBS in connection with this and other matters. UBS cannot predict the extent to which it will succeed in enforcing those rights.

*Lawsuits related to contractual representations and warranties concerning mortgages and RMBS:* When UBS acted as an RMBS sponsor or mortgage seller, we generally made certain representations relating to the characteristics of the underlying loans. In the event of a material breach of these representations, we were in certain circumstances contractually obligated to repurchase the loans to which the representations related or to indemnify certain parties against losses. UBS has received demands to repurchase US residential mortgage loans as to which UBS made certain representations at the time the loans were transferred to the securitization trust aggregating approximately USD 4.1 billion in original principal balance. Of this amount, UBS considers claims relating to approximately USD 2 billion in original principal balance to be resolved, including claims barred by the statute of limitations. Substantially all of the remaining claims are in litigation, including the matters described in the next paragraph. UBS believes that new demands to repurchase US residential mortgage loans are time-barred under a decision rendered by the New York Court of Appeals.

In 2012, certain RMBS trusts filed an action (Trustee Suit) in the SDNY seeking to enforce UBS RESI's obligation to repurchase loans in the collateral pools for three RMBS securitizations with an original principal balance of approximately USD 2 billion, for which Assured Guaranty Municipal Corp., a financial guaranty insurance company, had previously demanded repurchase. Approximately 9,000 loans were at issue in a bench trial in the SDNY in 2016, following which the court issued an order ruling on numerous legal and factual issues and applying those rulings to 20 exemplar loans. The court further ordered that a lead master be appointed to apply the court's rulings to the loans that remain at issue following the trial. With respect to the loans subject to the Trustee Suit that were originated by institutions still in existence, UBS intends to enforce its indemnity rights against those institutions.

We also have tolling agreements with certain institutional purchasers of RMBS concerning their potential claims related to substantial purchases of UBS-sponsored or third-party RMBS.

*Mortgage-related regulatory matters:* In 2014, UBS received a subpoena from the US Attorney's Office for the Eastern District of New York issued pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), which seeks documents and information related to UBS's RMBS business from 2005 through 2007. In 2015, the Eastern District of New York identified a number of transactions that are the focus of their inquiry, and has subsequently provided a revised list of transactions. We have provided and continue to provide information. UBS continues to respond to the FIRREA subpoena and to subpoenas from the New York State Attorney General and other state attorneys general relating to its RMBS business. In addition, UBS has also been responding to inquiries from both the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) (who is working in conjunction with the US Attorney's Office for Connecticut and the DOJ) and the SEC relating to trading practices in connection with purchases and sales of mortgage-backed securities in the secondary market from 2009 through 2014. We are cooperating with the authorities in these matters.

**Note 14 Provisions and contingent liabilities (continued)**

Our balance sheet at 31 March 2017 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier (CSSF). Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds now face severe losses, and the Luxembourg funds are in liquidation. The last reported net asset value of the two Luxembourg funds before revelation of the Madoff scheme was approximately USD 1.7 billion in the aggregate although that figure likely includes fictitious profit reported by BMIS. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members. UBS Europe SE, Luxembourg branch, and certain other UBS subsidiaries are responding to inquiries by Luxembourg investigating authorities, without, however, being named as parties in those investigations.

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims on behalf of the funds against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees. The amounts claimed are approximately EUR 890 million and EUR 305 million, respectively. The liquidators have filed supplementary claims for amounts that the funds may possibly be held liable to pay the trustee for the liquidation of BMIS (BMIS Trustee). These amounts claimed by the liquidator are approximately EUR 564 million and EUR 370 million, respectively.

In addition, a large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff scheme. The majority of these cases are pending in Luxembourg, where appeals were filed by the claimants against the 2010 decisions of the court in which the claims in a number of test cases were held to be inadmissible. The Luxembourg Court of Appeal has found in favor of UBS and dismissed all of these test case appeals, confirming that the claims are inadmissible. The Luxembourg Supreme Court has also dismissed a further appeal brought by the claimant in one of the test cases.

In the US, the BMIS Trustee filed claims in 2010 against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2 billion. Following a motion by UBS, in 2011, the SDNY dismissed all of the BMIS Trustee's claims other than claims for recovery of fraudulent conveyances and preference payments that were allegedly transferred to UBS on the ground that the BMIS Trustee lacks standing to bring such claims. In 2013, the Second Circuit affirmed the District Court's decision and, in 2014, the US Supreme Court denied the BMIS Trustee's petition seeking review of the Second Circuit ruling. In 2016, the bankruptcy court issued an opinion dismissing the remaining claims for recovery of subsequent transfers of fraudulent conveyances and preference payments on the ground that the US Bankruptcy Code does not apply to transfers that occurred outside the US, and judgment was entered in March 2017. The BMIS Trustee has appealed that ruling. In 2014, several claims, including a purported class action, were filed in the US by BMIS customers against UBS entities, asserting claims similar to the ones made by the BMIS Trustee, seeking unspecified damages. One claim was voluntarily withdrawn by the plaintiff. In 2015, following a motion by UBS, the SDNY dismissed the two remaining claims on the basis that the New York courts did not have jurisdiction to hear the claims against the UBS entities. The plaintiff in one of those claims has appealed the dismissal.

In Germany, certain clients of UBS are exposed to Madoff-managed positions through third-party funds and funds administered by UBS entities in Germany. A small number of claims have been filed with respect to such funds. In 2015, a court of appeal ordered UBS to pay EUR 49 million, plus interest of approximately EUR 15.3 million.

4. Puerto Rico

Declines since August 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (the funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) have led to multiple regulatory inquiries, as well as customer complaints and arbitrations with aggregate claimed damages of approximately USD 2 billion, of which claims with aggregate claimed damages of approximately USD 990 million have been resolved through settlements, arbitration or withdrawal of the claim. The claims are filed by clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and / or who used their UBS account assets as collateral for UBS non-purpose loans; customer complaint and arbitration allegations include fraud, misrepresentation and unsuitability of the funds and of the loans. A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2015, defendants' motion to dismiss was denied. Defendants' requests for permission to appeal that ruling were denied by the Puerto Rico Court of Appeals and the Puerto Rico Supreme Court. In 2014, a federal class action complaint also was filed against various UBS entities, certain members of UBS PR senior management and the co-manager of certain of the funds, seeking damages for investor losses in the funds during the period from May 2008 through May 2014. In 2016, defendants' motion to dismiss was granted in part and denied in part. In 2015, a class action was filed in Puerto Rico state court against UBS PR seeking equitable relief in the form of a stay of any effort by UBS PR to collect on non-purpose loans it acquired from UBS Bank USA in December 2013 based on plaintiffs' allegation that the loans are not valid. The trial court denied defendants' motion to dismiss the action based on a forum selection clause in the loan agreements; the Puerto Rico Supreme Court has stayed the action pending its review of defendants' appeal from that ruling.

In 2014, UBS reached a settlement with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico (OCFI) in connection with OCFI's examination of UBS's operations from January 2006 through September 2013, pursuant to which UBS is paying up to an aggregate of USD 7.7 million in investor education contributions and restitution.

In 2015, the SEC and the Financial Industry Regulatory Authority (FINRA) announced settlements with UBS PR of their separate investigations stemming from the 2013 market events. Without admitting or denying the findings in either matter, UBS PR agreed in the SEC settlement to pay USD 15 million and USD 18.5 million in the FINRA matter. We also understand that the DOJ is conducting a criminal inquiry into the impermissible reinvestment of non-purpose loan proceeds. We are cooperating with the authorities in this inquiry.

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of approximately USD 3 billion of bonds by the System in 2008 and sought damages of over USD 800 million. In December 2016, the court granted the System's request to join the action as a plaintiff, but ordered that plaintiffs must file an amended complaint. In March 2017, the court denied defendants' motion to dismiss the amended complaint.

Also, in 2013, an SEC Administrative Law Judge dismissed a case brought by the SEC against two UBS executives, finding no violations. The charges had stemmed from the SEC's investigation of UBS's sale of closed-end funds in 2008 and 2009, which UBS settled in 2012. Beginning in 2012, two federal class action complaints, which were subsequently consolidated, were filed against various UBS entities, certain of the funds and certain members of UBS PR senior management, seeking damages for investor losses in the funds during the period from January 2008 through May 2012 based on allegations similar to those in the SEC action. In 2016, the court denied plaintiffs' motion for class certification. In March 2017, the US Court of Appeals for the First Circuit denied plaintiffs' petition seeking permission to bring an interlocutory appeal challenging the denial of their motion for class certification.

Beginning in 2015, agencies and public corporations of the Commonwealth of Puerto Rico (Commonwealth) have defaulted on certain interest payments, and in 2016, the Commonwealth defaulted on payments on its general obligation debt. Executive orders of the Governor that have diverted funds to pay for essential services instead of debt payments and stayed any action to enforce creditors' rights on the Puerto Rico bonds continue to be in effect. In 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board is authorized to impose, and has imposed, a stay on exercise of creditors' rights. These events, further defaults, any further legislative action to create a legal means of restructuring Commonwealth obligations or to impose additional oversight on the Commonwealth's finances, or any restructuring of the Commonwealth's obligations may increase the number of claims against UBS concerning Puerto Rico securities, as well as potential damages sought.

**Note 14 Provisions and contingent liabilities (continued)**

Our balance sheet at 31 March 2017 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

5. Foreign exchange, LIBOR, and benchmark rates, and other trading practices

*Foreign exchange-related regulatory matters:* Following an initial media report in 2013 of widespread irregularities in the foreign exchange markets, UBS immediately commenced an internal review of its foreign exchange business, which includes our precious metals and related structured products businesses. Since then, various authorities have commenced investigations concerning possible manipulation of foreign exchange markets, including FINMA, the Swiss Competition Commission (WEKO), the DOJ, the SEC, the US Commodity Futures Trading Commission (CFTC), the Board of Governors of the Federal Reserve System (Federal Reserve Board), the California State Attorney General, the UK Financial Conduct Authority (FCA) (to which certain responsibilities of the UK Financial Services Authority (FSA) have passed), the UK Serious Fraud Office (SFO), the Australian Securities and Investments Commission (ASIC), the Hong Kong Monetary Authority (HKMA), the Korea Fair Trade Commission (KFTC) and the Brazil Competition Authority (CADE). In addition, WEKO is, and a number of other authorities reportedly are, investigating potential manipulation of precious metals prices.

In 2014, UBS reached settlements with the FCA and the CFTC in connection with their foreign exchange investigations, and FINMA issued an order concluding its formal proceedings with respect to UBS relating to its foreign exchange and precious metals businesses. In 2015, the Federal Reserve Board and the Connecticut Department of Banking issued an Order to Cease and Desist and Order of Assessment of a Civil Monetary Penalty Issued upon Consent (Federal Reserve Order) to UBS AG.

In 2015, the DOJ's Criminal Division (Criminal Division) terminated the December 2012 Non-Prosecution Agreement (NPA) with UBS AG related to UBS's submissions of benchmark interest rates. As a result, UBS AG entered into a plea agreement with the Criminal Division pursuant to which UBS AG pleaded guilty to a one-count criminal information filed in the US District Court for the District of Connecticut charging UBS AG with one count of wire fraud in violation of 18 USC Sections 1343 and 2. Sentencing occurred in January 2017. Under the plea agreement, UBS AG has paid a USD 203 million fine and is subject to a three-year term of probation starting on the sentencing date. The criminal information charges that, between approximately 2001 and 2010, UBS AG engaged in a scheme to defraud counterparties to interest rate derivatives transactions by manipulating benchmark interest rates, including Yen LIBOR. The Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA in certain foreign exchange market transactions.

We have ongoing obligations to cooperate with these authorities and to undertake certain remediation, including actions to improve UBS's processes and controls.

UBS has been granted conditional leniency or conditional immunity by the Antitrust Division of the DOJ (Antitrust Division) from prosecution for EUR / USD collusion and entered into a non-prosecution agreement covering other currency pairs. As a result, UBS AG will not be subject to prosecutions, fines or other sanctions for antitrust law violations by the Antitrust Division, subject to UBS AG's continuing cooperation. However, the conditional leniency and conditional immunity grant does not bar government agencies from asserting other claims and imposing sanctions against UBS AG. UBS has also been granted conditional immunity by authorities in certain jurisdictions, including WEKO, in connection with potential competition law violations relating to foreign exchange and precious metals businesses and, as a result, will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in those jurisdictions, subject to UBS AG's continuing cooperation as the leniency applicant.

Investigations relating to foreign exchange and precious metals matters by numerous authorities, including the CFTC, remain ongoing notwithstanding these resolutions.

**Note 14 Provisions and contingent liabilities (continued)**

*Foreign exchange-related civil litigation:* Putative class actions have been filed since November 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. They allege collusion by the defendants and assert claims under the antitrust laws and for unjust enrichment. In 2015, additional putative class actions were filed in federal court in New York against UBS and other banks on behalf of a putative class of persons who entered into or held any foreign exchange futures contracts and options on foreign exchange futures contracts since 1 January 2003. The complaints assert claims under the Commodity Exchange Act (CEA) and the US antitrust laws. In 2015, a consolidated complaint was filed on behalf of both putative classes of persons covered by the US federal court class actions described above. UBS has entered into a settlement agreement that would resolve all of these US federal court class actions. The agreement, which has been preliminarily approved by the court and is subject to final court approval, requires, among other things, that UBS pay an aggregate of USD 141 million and provide cooperation to the settlement classes.

A putative class action has been filed in federal court in New York against UBS and other banks on behalf of participants, beneficiaries, and named fiduciaries of plans qualified under the Employee Retirement Income Security Act of 1974 (ERISA) for whom a defendant bank provided foreign currency exchange transactional services, exercised discretionary authority or discretionary control over management of such ERISA plan, or authorized or permitted the execution of any foreign currency exchange transactional services involving such plan's assets. The complaint asserts claims under ERISA. The parties filed a stipulation to dismiss the case with prejudice. The plaintiffs have appealed the dismissal.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of a putative class of persons and businesses in the US who directly purchased foreign currency from the defendants and their co-conspirators for their own end use. That action has been transferred to federal court in New York. In March 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint.

In 2016, a putative class action was filed in federal court in New York against UBS and numerous other banks on behalf of a putative class of persons and entities who had indirectly purchased FX instruments from a defendant or co-conspirator in the US. The complaint asserts claims under federal and state antitrust laws. In response to defendants' motion to dismiss, plaintiffs have sought to amend their complaint.

In 2015, UBS was added to putative class actions pending against other banks in federal court in New York and other jurisdictions on behalf of putative classes of persons who had bought or sold physical precious metals and various precious metal products and derivatives. The complaints in these lawsuits assert claims under the antitrust laws and the CEA, and other claims. In October 2016, the court in New York granted UBS's motions to dismiss the putative class actions relating to gold and silver. Plaintiffs in those cases are seeking to amend their complaints to add new allegations about UBS. In March 2017, the court in New York granted UBS's motion to dismiss the platinum and palladium action.

*LIBOR and other benchmark-related regulatory matters:* Numerous government agencies, including the SEC, the CFTC, the DOJ, the FCA, the SFO, the Monetary Authority of Singapore (MAS), the HKMA, FINMA, the various state attorneys general in the US and competition authorities in various jurisdictions have conducted or are continuing to conduct investigations regarding submissions with respect to LIBOR and other benchmark rates. These investigations focus on whether there were improper attempts by UBS, among others, either acting on our own or together with others, to manipulate LIBOR and other benchmark rates at certain times.

In 2012, UBS reached settlements with the FSA, the CFTC and the Criminal Division of the DOJ in connection with their investigations of benchmark interest rates. At the same time, FINMA issued an order concluding its formal proceedings with respect to UBS relating to benchmark interest rates. UBS has paid a total of approximately CHF 1.4 billion in fines and disgorgement in connection with these resolutions. UBS Securities Japan Co. Ltd. (UBSSJ) entered into a plea agreement with the DOJ under which it entered a plea to one count of wire fraud relating to the manipulation of certain benchmark interest rates, including Yen LIBOR. UBS entered into an NPA with the DOJ, which (along with the plea agreement) covered conduct beyond the scope of the conditional leniency / immunity grants described below. Under the NPA, UBS agreed, among other things, that for two years from 18 December 2012 it would not commit any US crime and would advise the DOJ of any potentially criminal conduct by UBS or any of its employees relating to violations of US laws concerning fraud or securities and commodities markets. The term of the NPA was extended by one year to 18 December 2015. In 2015, the Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA.

In 2014, UBS reached a settlement with the European Commission (EC) regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and paid a EUR 12.7 million fine, which was reduced to this level based in part on UBS's cooperation with the EC. In 2016, UBS reached a settlement with WEKO regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and received full immunity from fines. The MAS, HKMA and the Japan Financial Services Agency have also resolved investigations of UBS (and in some cases, other banks). We have ongoing obligations to cooperate with the authorities with whom we have reached resolutions and to undertake certain remediation with respect to benchmark interest rate submissions.

**Note 14 Provisions and contingent liabilities (continued)**

Investigations by the CFTC, ASIC and other governmental authorities remain ongoing notwithstanding these resolutions.

UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO, in connection with potential antitrust or competition law violations related to submissions for Yen LIBOR and Euroyen TIBOR. As a result of these conditional grants, UBS will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in the jurisdictions where we have conditional immunity in connection with the matters covered by the conditional grants, subject to our continuing cooperation as leniency applicant. However, since the Secretariat of WEKO has asserted that UBS does not qualify for full immunity, UBS has been unable to reach a settlement with WEKO, and therefore the investigation will continue. Furthermore, the conditional leniency and conditional immunity grants we have received do not bar government agencies from asserting other claims and imposing sanctions against us. In addition, as a result of the conditional leniency agreement with the DOJ, we are eligible for a limit on liability to actual rather than treble damages were damages to be awarded in any civil antitrust action under US law based on conduct covered by the agreement and for relief from potential joint and several liability in connection with such civil antitrust action, subject to our satisfying the DOJ and the court presiding over the civil litigation of our cooperation. The conditional leniency and conditional immunity grants do not otherwise affect the ability of private parties to assert civil claims against us.

*LIBOR and other benchmark-related civil litigation:* A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. All of the complaints allege manipulation, through various means, of various benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, USD ISDAFIX rates and other benchmark rates, and seek unspecified compensatory and other damages under varying legal theories.

In 2013, the US district court in the USD LIBOR action dismissed the federal antitrust and racketeering claims of certain USD LIBOR plaintiffs and a portion of their claims brought under the CEA and state common law. Certain plaintiffs appealed the decision to the Second Circuit, which, in 2016, vacated the district court's ruling finding no antitrust injury and remanded the case back to the district court for a further determination on whether plaintiffs have antitrust standing. In 2016, the district court again dismissed plaintiffs' antitrust claims, this time for lack of personal jurisdiction over UBS and other foreign banks. In 2014, the court in one of the Euroyen TIBOR lawsuits dismissed certain of the plaintiff's claims, including federal antitrust claims. In 2015, the same court dismissed plaintiff's federal racketeering claims and affirmed its previous dismissal of plaintiff's antitrust claims. In 2017, the court also dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds. Also in 2017, the court in the EURIBOR lawsuit dismissed the case as to UBS and certain other foreign defendants for lack of personal jurisdiction. UBS and other defendants in other lawsuits including those related to CHF LIBOR, GBP LIBOR and USD and SGD SIBOR and Australian BBSW have filed motions to dismiss. In 2016, UBS entered into an agreement with representatives of a class of bondholders to settle their USD LIBOR class action. The agreement is subject to court approval.

Since September 2014, putative class actions have been filed in federal court in New York and New Jersey against UBS and other financial institutions, among others, on behalf of parties who entered into interest rate derivative transactions linked to ISDAFIX. The complaints, which have since been consolidated into an amended complaint, allege that the defendants conspired to manipulate ISDAFIX rates from 1 January 2006 through June 2013, in violation of US antitrust laws and certain state laws, and seek unspecified compensatory damages, including treble damages. In 2016, the court in the ISDAFIX action denied in substantial part defendants' motion to dismiss, holding that plaintiffs have stated Sherman Act, breach-of-contract and unjust-enrichment claims against defendants, including UBS AG.

*Government bonds:* Putative class actions have been filed in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. The complaints generally allege that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction. They assert claims under the antitrust laws and the CEA and for unjust enrichment. The cases have been consolidated in the SDNY. Following filing of these complaints, UBS and reportedly other banks are responding to investigations and requests for information from various authorities regarding US Treasury securities and other government bond trading practices. As a result of its review to date, UBS has taken appropriate action.

With respect to additional matters and jurisdictions not encompassed by the settlements and order referred to above, our balance sheet at 31 March 2017 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

## Note 14 Provisions and contingent liabilities (continued)

### 6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver.

FINMA has issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and may continue to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among others, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

Our balance sheet at 31 March 2017 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 7. Banco UBS Pactual tax indemnity

Pursuant to the 2009 sale of Banco UBS Pactual S.A. (Pactual) by UBS to BTG Investments, LP (BTG), BTG has submitted contractual indemnification claims that UBS estimates amount to approximately BRL 2.7 billion, including interest and penalties, which is net of liabilities retained by BTG. The claims pertain principally to several tax assessments issued by the Brazilian tax authorities against Pactual relating to the period from December 2006 through March 2009, when UBS owned Pactual. These assessments are being challenged in administrative and judicial proceedings. The majority of these assessments relate to the deductibility of goodwill amortization in connection with UBS's 2006 acquisition of Pactual and payments made to Pactual employees through various profit-sharing plans. In 2015, an intermediate administrative court issued a decision that was largely in favor of the tax authority with respect to the goodwill amortization assessment. In 2016, the highest level of the administrative court agreed to review this decision on a number of the significant issues.

### 8. Investigation of UBS's role in initial public offerings in Hong Kong

The Hong Kong Securities and Futures Commission (SFC) has been conducting investigations into UBS's role as a sponsor of certain initial public offerings listed on the Hong Kong Stock Exchange. In 2016, the SFC informed UBS that it intends to commence action against UBS and certain UBS employees with respect to sponsorship work in those offerings, which could result in financial ramifications for UBS, including fines and obligations to pay investor compensation, and suspension of UBS's ability to provide corporate finance advisory services in Hong Kong for a period of time. In January 2017, a writ was filed by the SFC with Hong Kong's High Court in which UBS is named as one of six defendants from whom the SFC is seeking compensation in an unspecified amount for losses incurred by certain shareholders of China Forestry Holdings Company Limited, for whom UBS acted as a sponsor in connection with their 2009 listing application.

## Note 15 Guarantees, commitments and forward starting transactions

The table below shows the maximum irrevocable amount of guarantees, commitments and forward starting transactions.

| | 31.3.17 | | | 31.12.16 | | |
|---|---|---|---|---|---|---|
| *CHF million* | Gross | Sub-participations | Net | Gross | Sub - participations | Net |
| **Guarantees** | | | | | | |
| Credit guarantees and similar instruments | 6,595 | (427) | 6,168 | 6,447 | (424) | 6,023 |
| Performance guarantees and similar instruments | 3,117 | (674) | 2,443 | 3,190 | (696) | 2,494 |
| Documentary credits | 7,130 | (1,672) | 5,458 | 7,074 | (1,761) | 5,313 |
| **Total guarantees** | 16,842 | (2,773) | 14,069 | 16,711 | (2,881) | 13,830 |
| **Loan commitments** | 46,063 | (1,460) | 44,603 | 54,430 | (1,513) | 52,917 |
| **Forward starting transactions**[1] | | | | | | |
| Reverse repurchase agreements | 25,136 | | | 10,178 | | |
| Securities borrowing agreements | 55 | | | 36 | | |
| Repurchase agreements | 18,124 | | | 5,984 | | |

1 Cash to be paid in the future by either UBS or the counterparty.

## Note 16 Changes in organization and disposals

### Restructuring expenses

Restructuring expenses arise from programs that materially change either the scope of business that the Group engages in or the manner in which such business is conducted. Restructuring expenses are necessary to effect such programs and include items such as severance and other personnel-related expenses, duplicate headcount costs, impairment and accelerated depreciation of assets, contract termination costs, consulting fees, and related infrastructure and system costs. These costs are presented in the income statement according to the underlying nature of the expense.

**Net restructuring expenses by business division and Corporate Center unit**

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Wealth Management | 88 | 143 | 79 | (38) | 11 |
| Wealth Management Americas | 22 | 31 | 33 | (29) | (33) |
| Personal & Corporate Banking | 19 | 21 | 23 | (10) | (17) |
| Asset Management | 20 | 12 | 20 | 67 | 0 |
| Investment Bank | 78 | 116 | 117 | (33) | (33) |
| Corporate Center | 17 | 47 | (6) | (64) | |
| *of which: Services* | *15* | *40* | *(8)* | *(63)* | |
| *of which: Non-core and Legacy Portfolio* | *2* | *8* | *2* | *(75)* | *0* |
| **Total net restructuring expenses** | 244 | 372 | 265 | (34) | (8) |
| *of which: personnel expenses* | *116* | *174* | *128* | *(33)* | *(9)* |
| *of which: general and administrative expenses* | *124* | *187* | *136* | *(34)* | *(9)* |
| *of which: depreciation and impairment of property, equipment and software* | *4* | *10* | *1* | *(60)* | *300* |
| *of which: amortization and impairment of intangible assets* | *0* | *0* | *0* | | |

**Net restructuring expenses by personnel expense category**

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Salaries and variable compensation | 103 | 178 | 115 | (42) | (10) |
| Contractors | 13 | 15 | 11 | (13) | 18 |
| Social security | 2 | 2 | 2 | 0 | 0 |
| Pension and other post-employment benefit plans | (4) | (23) | (4) | (83) | 0 |
| Other personnel expenses | 2 | 3 | 4 | (33) | (50) |
| **Total net restructuring expenses: personnel expenses** | 116 | 174 | 128 | (33) | (9) |

**Net restructuring expenses by general and administrative expense category**

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Occupancy | 19 | 26 | 29 | (27) | (34) |
| Rent and maintenance of IT and other equipment | 29 | 22 | 10 | 32 | 190 |
| Administration | 3 | 5 | 3 | (40) | 0 |
| Travel and entertainment | 2 | 4 | 3 | (50) | (33) |
| Professional fees | 26 | 53 | 34 | (51) | (24) |
| Outsourcing of IT and other services | 44 | 61 | 74 | (28) | (41) |
| Other[1] | 0 | 17 | (17) | (100) | (100) |
| **Total net restructuring expenses: general and administrative expenses** | 124 | 187 | 136 | (34) | (9) |

1 Mainly comprised of onerous real estate lease contracts.

**Note 16 Changes in organization and disposals (continued)**

## Disposal group held for sale

In 2016, UBS agreed to sell a life insurance subsidiary within Wealth Management. This sale is currently expected to close in the second quarter of 2017, subject to customary closing conditions. As of 31 March 2017, the assets and liabilities of this business are presented as a disposal group held for sale within *Other assets* and *Other liabilities* and amounted to CHF 5,074 million and CHF 5,052 million, respectively (31 December 2016: CHF 5,137 million and CHF 5,213 million, respectively).

**Note 17 Currency translation rates**

The following table shows the rates of the main currencies used to translate the financial information of UBS's foreign operations into Swiss francs.

| | Spot rate | | | Average rate[1] | | |
|---|---|---|---|---|---|---|
| | As of | | | For the quarter ended | | |
| | 31.3.17 | 31.12.16 | 31.3.16 | 31.3.17 | 31.12.16 | 31.3.16 |
| 1 USD | 1.00 | 1.02 | 0.96 | 1.00 | 1.01 | 0.99 |
| 1 EUR | 1.07 | 1.07 | 1.09 | 1.07 | 1.08 | 1.10 |
| 1 GBP | 1.25 | 1.26 | 1.38 | 1.25 | 1.25 | 1.42 |
| 100 JPY | 0.90 | 0.87 | 0.85 | 0.89 | 0.90 | 0.86 |

1 Monthly income statement items of foreign operations with a functional currency other than Swiss franc are translated with month-end rates into Swiss francs. Disclosed average rates for a quarter represent an average of three month-end rates, weighted according to the income and expense volumes of all foreign operations of the Group with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for the Group.

## Appendix 5 – Excerpts from the UBS AG First Quarter 2017 report

It should be noted that the term "pro-forma" as used in this Appendix 5 does not refer to the term "pro forma financial information" within the meaning of Regulation (EC) 809/2004.

# UBS AG interim consolidated financial statements (unaudited)

## Income statement

| | | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million* | Note | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Interest income | | 3,392 | 3,524 | 3,406 | (4) | 0 |
| Interest expense | | (1,704) | (1,774) | (1,697) | (4) | 0 |
| Net interest income | | 1,688 | 1,751 | 1,708 | (4) | (1) |
| Credit loss (expense) / recovery | | 0 | (24) | (3) | (100) | (100) |
| Net interest income after credit loss expense | | 1,688 | 1,727 | 1,706 | (2) | (1) |
| Net fee and commission income | 3 | 4,371 | 4,164 | 4,121 | 5 | 6 |
| Net trading income | | 1,441 | 942 | 1,011 | 53 | 43 |
| Other income | 4 | 60 | 284 | 17 | (79) | 253 |
| Total operating income | | 7,560 | 7,118 | 6,855 | 6 | 10 |
| Personnel expenses | 5 | 4,044 | 3,832 | 3,899 | 6 | 4 |
| General and administrative expenses | 6 | 1,601 | 2,267 | 1,711 | (29) | (6) |
| Depreciation and impairment of property, equipment and software | | 253 | 253 | 242 | 0 | 5 |
| Amortization and impairment of intangible assets | | 21 | 21 | 23 | 0 | (9) |
| Total operating expenses | | 5,919 | 6,373 | 5,876 | (7) | 1 |
| Operating profit / (loss) before tax | | 1,641 | 745 | 979 | 120 | 68 |
| Tax expense / (benefit) | 7 | 364 | 106 | 265 | 243 | 37 |
| Net profit / (loss) | | 1,277 | 639 | 713 | 100 | 79 |
| Net profit / (loss) attributable to preferred noteholders | | 46 | 0 | 0 | | |
| Net profit / (loss) attributable to non-controlling interests | | 1 | 1 | 0 | 0 | |
| **Net profit / (loss) attributable to shareholders** | | 1,231 | 638 | 713 | 93 | 73 |

## Statement of comprehensive income

| | For the quarter ended | | |
|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 |
| **Comprehensive income attributable to shareholders** | | | |
| Net profit / (loss) | 1,231 | 638 | 713 |
| **Other comprehensive income that may be reclassified to the income statement** | | | |
| **Foreign currency translation** | | | |
| Foreign currency translation movements, before tax | (373) | 1,065 | (953) |
| Foreign exchange amounts reclassified to the income statement from equity | 4 | (27) | 123 |
| Income tax relating to foreign currency translation movements | 2 | (194) | 5 |
| Subtotal foreign currency translation, net of tax | (368) | 844 | (825) |
| **Financial assets available for sale** | | | |
| Net unrealized gains / (losses) on financial assets available for sale, before tax | 44 | (135) | 253 |
| Impairment charges reclassified to the income statement from equity | 14 | 0 | 0 |
| Realized gains reclassified to the income statement from equity | (8) | (98) | (89) |
| Realized losses reclassified to the income statement from equity | 2 | 7 | 13 |
| Income tax relating to net unrealized gains / (losses) on financial assets available for sale | (8) | 81 | (46) |
| Subtotal financial assets available for sale, net of tax | 43 | (145) | 131 |
| **Cash flow hedges** | | | |
| Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax | (30) | (1,024) | 944 |
| Net (gains) / losses reclassified to the income statement from equity | (220) | (270) | (303) |
| Income tax relating to cash flow hedges | 52 | 261 | (127) |
| Subtotal cash flow hedges, net of tax | (198) | (1,033) | 513 |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | (522) | (334) | (181) |
| **Other comprehensive income that will not be reclassified to the income statement** | | | |
| **Defined benefit plans** | | | |
| Gains / (losses) on defined benefit plans, before tax | 49 | (301) | (191) |
| Income tax relating to defined benefit plans | 2 | 68 | 12 |
| Subtotal defined benefit plans, net of tax | 51 | (234) | (179) |
| **Own credit on financial liabilities designated at fair value** | | | |
| Gains / (losses) from own credit on financial liabilities designated at fair value, before tax | (181) | 15 | 68 |
| Income tax relating to own credit on financial liabilities designated at fair value | 0 | 0 | (16) |
| Subtotal own credit on financial liabilities designated at fair value, net of tax | (181) | 15 | 52 |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | (129) | (219) | (127) |
| **Total other comprehensive income** | (652) | (553) | (308) |
| **Total comprehensive income attributable to shareholders** | 579 | 85 | 405 |

## Statement of comprehensive income (continued)

| | For the quarter ended | | |
|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 |
| **Comprehensive income attributable to preferred noteholders** | | | |
| Net profit / (loss) | 46 | 0 | 0 |
| Other comprehensive income that will not be reclassified to the income statement | | | |
| Foreign currency translation movements, before tax | (2) | (12) | (50) |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | (2) | (12) | (50) |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | (2) | (12) | (50) |
| Total comprehensive income attributable to preferred noteholders | 44 | (12) | (50) |
| **Comprehensive income attributable to non-controlling interests** | | | |
| Net profit / (loss) | 1 | 1 | 0 |
| Other comprehensive income that will not be reclassified to the income statement | | | |
| Foreign currency translation movements, before tax | 2 | (1) | (1) |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | 2 | (1) | (1) |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 2 | (1) | (1) |
| Total comprehensive income attributable to non-controlling interests | 2 | 0 | 0 |
| **Total comprehensive income** | | | |
| Net profit / (loss) | 1,277 | 639 | 713 |
| Other comprehensive income | (651) | (566) | (358) |
| *of which: other comprehensive income that may be reclassified to the income statement* | *(522)* | *(334)* | *(181)* |
| *of which: other comprehensive income that will not be reclassified to the income statement* | *(129)* | *(232)* | *(177)* |
| Total comprehensive income | 626 | 73 | 355 |

## Balance sheet

| *CHF million* | Note | 31.3.17 | 31.12.16 | % change from 31.12.16 |
|---|---|---|---|---|
| **Assets** | | | | |
| Cash and balances with central banks | | 108,931 | 107,767 | 1 |
| Due from banks | | 14,191 | 13,125 | 8 |
| Cash collateral on securities borrowed | | 18,512 | 15,111 | 23 |
| Reverse repurchase agreements | | 77,004 | 66,246 | 16 |
| Trading portfolio assets | 8 | 107,345 | 96,661 | 11 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | | *30,346* | *30,260* | *0* |
| Positive replacement values | 8, 9 | 121,549 | 158,411 | (23) |
| Cash collateral receivables on derivative instruments | 9 | 22,522 | 26,664 | (16) |
| Loans | | 310,754 | 307,004 | 1 |
| Financial assets designated at fair value | 8 | 48,760 | 65,024 | (25) |
| Financial assets available for sale | 8 | 16,235 | 15,676 | 4 |
| Financial assets held to maturity | | 8,962 | 9,289 | (4) |
| Investments in associates | | 977 | 963 | 1 |
| Property, equipment and software | | 8,327 | 8,297 | 0 |
| Goodwill and intangible assets | | 6,458 | 6,556 | (1) |
| Deferred tax assets | | 12,914 | 13,144 | (2) |
| Other assets | 10 | 27,482 | 25,412 | 8 |
| **Total assets** | | 910,924 | 935,353 | (3) |

## Balance sheet (continued)

| *CHF million* | Note | 31.3.17 | 31.12.16 | % change from 31.12.16 |
|---|---|---|---|---|
| **Liabilities** | | | | |
| Due to banks | | 8,747 | 10,645 | (18) |
| Cash collateral on securities lent | | 3,067 | 2,818 | 9 |
| Repurchase agreements | | 10,621 | 6,612 | 61 |
| Trading portfolio liabilities | 8 | 28,576 | 22,825 | 25 |
| Negative replacement values | 8,9 | 119,964 | 153,810 | (22) |
| Cash collateral payables on derivative instruments | 9 | 29,875 | 35,472 | (16) |
| Due to customers | | 455,386 | 450,199 | 1 |
| Financial liabilities designated at fair value | 8,11 | 56,640 | 55,017 | 3 |
| Debt issued | 12 | 83,563 | 78,998 | 6 |
| Provisions | 13 | 3,752 | 4,169 | (10) |
| Other liabilities | 10 | 58,064 | 60,443 | (4) |
| **Total liabilities** | | 858,255 | 881,009 | (3) |
| **Equity** | | | | |
| Share capital | | 386 | 386 | 0 |
| Share premium | | 27,254 | 29,505 | (8) |
| Retained earnings | | 29,367 | 28,265 | 4 |
| Other comprehensive income recognized directly in equity, net of tax | | (5,017) | (4,494) | 12 |
| **Equity attributable to shareholders** | | 51,990 | 53,662 | (3) |
| Equity attributable to preferred noteholders | | 641 | 642 | 0 |
| Equity attributable to non-controlling interests | | 38 | 40 | (5) |
| **Total equity** | | 52,669 | 54,343 | (3) |
| **Total liabilities and equity** | | 910,924 | 935,353 | (3) |

## Statement of changes in equity

| CHF million | Share capital | Share premium | Retained earnings |
|---|---|---|---|
| **Balance as of 1 January 2016** | **386** | **29,477** | **29,433** |
| Issuance of share capital | | | |
| Premium on shares issued and warrants exercised | | | |
| Tax (expense) / benefit | | 13 | |
| Dividends | | | |
| Preferred notes | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (7) | |
| Total comprehensive income for the period | | | 586 |
| *of which: net profit / (loss)* | | | *713* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | *(179)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | *52* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | |
| **Balance as of 31 March 2016** | **386** | **29,484** | **30,019** |
| **Balance as of 1 January 2017** | 386 | 29,505 | 28,265 |
| Issuance of share capital | | | |
| Premium on shares issued and warrants exercised | | 6 | |
| Tax (expense) / benefit | | 3 | |
| Dividends | | (2,250) | |
| Preferred notes | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (9) | |
| Total comprehensive income for the period | | | 1,102 |
| *of which: net profit / (loss)* | | | *1,231* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | *51* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | *(181)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | |
| **Balance as of 31 March 2017** | 386 | 27,254 | 29,367 |

1 Excludes defined benefit plans and own credit that are recorded directly in Retained earnings.

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: foreign currency translation* | *of which: financial assets available for sale* | *of which: cash flow hedges* | Total equity attributable to shareholders | Preferred noteholders | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| **(4,047)** | *(5,857)* | *172* | *1,638* | **55,248** | **1,954** | **41** | **57,243** |
| | | | | 0 | | | 0 |
| | | | | 0 | | | 0 |
| | | | | 13 | | | 13 |
| | | | | 0 | | (5) | (5) |
| | | | | 0 | 0 | | 0 |
| | | | | (7) | | | (7) |
| (181) | *(825)* | *131* | *513* | 405 | (50) | 0 | 355 |
| | | | | *713* | | *0* | *713* |
| *(181)* | *(825)* | *131* | *513* | *(181)* | | | *(181)* |
| | | | | *(179)* | | | *(179)* |
| | | | | *52* | | | *52* |
| | | | | *0* | *(50)* | *(1)* | *(50)* |
| **(4,228)** | *(6,682)* | *303* | *2,151* | **55,660** | **1,905** | **36** | **57,601** |
| (4,494) | *(5,564)* | *98* | *972* | 53,662 | 642 | 40 | 54,343 |
| | | | | 0 | | | 0 |
| | | | | 6 | | | 6 |
| | | | | 3 | | | 3 |
| | | | | (2,250) | (46) | (4) | (2,300) |
| | | | | 0 | 0 | | 0 |
| | | | | (9) | | 1 | (9) |
| (522) | *(368)* | *43* | *(198)* | 579 | 44 | 2 | 626 |
| | | | | *1,231* | *46* | *1* | *1,277* |
| *(522)* | *(368)* | *43* | *(198)* | *(522)* | | | *(522)* |
| | | | | *51* | | | *51* |
| | | | | *(181)* | | | *(181)* |
| | | | | *0* | *(2)* | *2* | *0* |
| (5,017) | *(5,932)* | *141* | *774* | 51,990 | 641 | 38 | 52,669 |

## Statement of cash flows

| | Year-to-date | |
|---|---|---|
| *CHF million* | 31.3.17 | 31.3.16 |
| **Cash flow from / (used in) operating activities** | | |
| Net profit / (loss) | 1,277 | 713 |
| **Non-cash items included in net profit and other adjustments:** | | |
| Depreciation and impairment of property, equipment and software | 253 | 242 |
| Amortization and impairment of intangible assets | 21 | 23 |
| Credit loss expense / (recovery) | 0 | 3 |
| Share of net profits of associates | (19) | (18) |
| Deferred tax expense / (benefit) | 128 | 93 |
| Net loss / (gain) from investing activities | 141 | 779 |
| Net loss / (gain) from financing activities | 449 | 612 |
| Other net adjustments | (562) | (1,302) |
| **Net change in operating assets and liabilities:** | | |
| Due from / to banks | (2,192) | (13) |
| Cash collateral on securities borrowed and reverse repurchase agreements | (14,427) | (16,074) |
| Cash collateral on securities lent and repurchase agreements | 4,204 | (3,941) |
| Trading portfolio and replacement values | (2,137) | 22,746 |
| Financial assets designated at fair value | 16,629 | (35,255) |
| Cash collateral on derivative instruments | (1,396) | (2,404) |
| Loans | (4,468) | 2,060 |
| Due to customers | (368) | 16,522 |
| Other assets, provisions and other liabilities | (4,750) | (1,675) |
| Income taxes paid, net of refunds | (50) | (62) |
| **Net cash flow from / (used in) operating activities** | (7,267) | (16,952) |
| **Cash flow from / (used in) investing activities** | | |
| Purchase of subsidiaries, associates and intangible assets | (1) | 0 |
| Disposal of subsidiaries, associates and intangible assets[1] | 3 | 1 |
| Purchase of property, equipment and software | (306) | (429) |
| Disposal of property, equipment and software | 21 | 4 |
| Purchase of financial assets available for sale | (2,227) | (5,597) |
| Disposal and redemption of financial assets available for sale | 2,102 | 36,045 |
| Net (purchase) / redemption of financial assets held to maturity | 199 | (2,889) |
| **Net cash flow from / (used in) investing activities** | (208) | 27,135 |

Table continues on the next page.

## Statement of cash flows (continued)

Table continued from previous page.

| | Year-to-date | |
|---|---|---|
| *CHF million* | 31.3.17 | 31.3.16 |
| **Cash flow from / (used in) financing activities** | | |
| Net short-term debt issued / (repaid) | 9,432 | 9,814 |
| Distributions paid on UBS AG shares | (2,250) | 0 |
| Issuance of long-term debt, including financial liabilities designated at fair value | 14,195 | 15,904 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (10,803) | (17,057) |
| Dividends paid and repayments of preferred notes | 0 | (1) |
| Net changes in non-controlling interests | (4) | (5) |
| **Net cash flow from / (used in) financing activities** | 10,569 | 8,655 |
| **Total cash flow** | | |
| Cash and cash equivalents at the beginning of the period | 121,107 | 102,962 |
| Net cash flow from / (used in) operating, investing and financing activities | 3,094 | 18,838 |
| Effects of exchange rate differences on cash and cash equivalents | (57) | (2,298) |
| Cash and cash equivalents at the end of the period[2] | 124,145 | 119,502 |
| *of which: cash and balances with central banks* | *108,931* | *105,710* |
| *of which: due from banks* | *12,638* | *12,725* |
| *of which: money market paper[3]* | *2,576* | *1,068* |
| **Additional information** | | |
| Net cash flow from / (used in) operating activities includes: | | |
| Interest received in cash | 2,759 | 2,931 |
| Interest paid in cash | 1,658 | 1,494 |
| Dividends on equity investments, investment funds and associates received in cash[4] | 436 | 426 |

1 Includes dividends received from associates. 2 CHF 2,314 million and CHF 3,837 million of cash and cash equivalents (mainly reflected in Due from banks) were restricted as of 31 March 2017 and 31 March 2016. Refer to Note 23 in the Annual Report 2016 for more information. 3 Money market paper is included in the balance sheet under Trading portfolio assets, Financial assets available for sale and Financial assets designated at fair value. 4 Includes dividends received from associates reported within cash flow from / (used in) investing activities.

# Notes to the UBS AG interim consolidated financial statements (unaudited)

## Note 1 Basis of accounting

The consolidated financial statements (the Financial Statements) of UBS AG and its subsidiaries (together "UBS AG") are prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), and are presented in Swiss francs (CHF), which is also the functional currency of UBS AG. These interim Financial Statements are prepared in accordance with IAS 34, *Interim Financial Reporting*.

In preparing these interim Financial Statements, the same accounting policies and methods of computation have been applied as in the UBS AG consolidated annual Financial Statements for the period ended 31 December 2016, except for the changes described below. These interim Financial Statements are unaudited and should be read in conjunction with UBS AG's audited consolidated Financial Statements included in the Annual Report 2016. In the opinion of management, all necessary adjustments were made for a fair presentation of UBS's financial position, results of operations and cash flows.

Preparation of these interim Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities. These estimates and assumptions are based on the best available information. Actual results in the future could differ from such estimates and such differences may be material to the Financial Statements. Revisions to estimates, based on regular reviews, are recognized in the period in which they occur. For more information on areas of estimation uncertainty considered to require critical judgment, refer to "Note 1a Significant accounting policies" in the "Consolidated financial statements" section of the Annual Report 2016.

### Presentation of interest income and expense on derivatives designated as hedging instruments

Effective 1 January 2017, UBS AG refined the presentation of interest income and interest expense on derivatives designated as hedging instruments in effective hedge relationships, to align the presentation with interest arising from designated hedged items. As a result, first quarter *Interest income* and *Interest expense* was lower by CHF 149 million, with no change to *Net interest income*. Prior-period information has not been restated, as the effect is not material.

### Amendments to IAS 7, Statement of Cash Flows

Amendments to IAS 7, *Statement of Cash Flows*, effective for annual periods beginning on 1 January 2017, require UBS AG to explain changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes. UBS AG will provide this specific disclosure for the first time in its Annual Report 2017.

### Amendments to IAS 12, *Income Taxes*

In the first quarter of 2017, UBS AG adopted amendments to IAS 12, *Income Taxes*, that clarify how to account for deferred tax assets related to debt instruments measured at fair value. The adoption of these amendments did not have a material impact on its financial statements.

### Net interest and trading income

Beginning in the first quarter of 2017, UBS AG no longer includes the "Net interest and trading income" Note disclosure in its interim financial statements. Note 2 provides information on *Net interest income* and *Non-interest income*. The "Net interest and trading income" Note disclosure will continue to be included in UBS AG's Annual Report.

## Note 2 Segment reporting

UBS AG's businesses are organized globally into five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank, all of which are supported by Corporate Center. The five business divisions qualify as reportable segments for the purpose of segment reporting and, together with Corporate Center and its units, reflect the management structure of UBS AG. Corporate Center – Non-core and Legacy Portfolio is managed and reported as a separate reportable segment within Corporate Center. Refer to "Note 1a item 2 Segment reporting" and "Note 2 Segment reporting" in the "Consolidated financial statements" section of the Annual Report 2016 for more information on UBS AG's reporting segments.

| | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center | | | UBS AG |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | | | | | | Services | Group ALM | Non-core and Legacy Portfolio | |
| For the quarter ended 31 March 2017 | | | | | | | | | |
| Net interest income | 489 | 375 | 457 | (7) | 383 | (74) | 58 | 6 | 1,688 |
| Non-interest income | 1,368 | 1,644 | 435 | 452 | 1,806 | 42 | 107 | 16 | 5,872 |
| Allocations from Group ALM | 71 | 32 | 59 | 5 | (86) | 30 | (88) | (23) | 0 |
| Income | 1,929 | 2,051 | 951 | 450 | 2,105 | (2) | 77 | 0 | 7,560 |
| Credit loss (expense) / recovery | (1) | (1) | 7 | 0 | (6) | 0 | 0 | 0 | 0 |
| Total operating income | 1,929 | 2,051 | 958 | 450 | 2,099 | (2) | 77 | 0 | 7,560 |
| Personnel expenses | 599 | 1,287 | 212 | 162 | 827 | 933 | 8 | 15 | 4,044 |
| General and administrative expenses | 136 | 155 | 60 | 57 | 158 | 1,014 | 4 | 16 | 1,601 |
| Services (to) / from CC and other BDs | 562 | 311 | 264 | 127 | 664 | (1,980) | (10) | 61 | 0 |
| *of which: services from CC – Services* | *536* | *308* | *292* | *135* | *640* | *(1,992)* | *29* | *51* | *0* |
| Depreciation and impairment of property, equipment and software | 0 | 1 | 3 | 0 | 2 | 247 | 0 | 0 | 253 |
| Amortization and impairment of intangible assets | 1 | 11 | 0 | 1 | 3 | 5 | 0 | 0 | 21 |
| Total operating expenses[1] | 1,299 | 1,765 | 539 | 347 | 1,655 | 219 | 1 | 92 | 5,919 |
| **Operating profit / (loss) before tax** | **630** | **286** | **418** | **103** | **443** | **(222)** | **76** | **(93)** | **1,641** |
| Tax expense / (benefit) | | | | | | | | | 364 |
| **Net profit / (loss)** | | | | | | | | | **1,277** |
| As of 31 March 2017 | | | | | | | | | |
| **Total assets** | **116,727** | **64,451** | **138,726** | **12,354** | **228,747** | **23,041** | **266,679** | **60,199** | **910,924** |
| For the quarter ended 31 March 2016[2] | | | | | | | | | |
| Net interest income | 474 | 327 | 477 | (7) | 312 | (89) | 222 | (6) | 1,708 |
| Non-interest income | 1,305 | 1,542 | 392 | 473 | 1,624 | 15 | (186) | (15) | 5,149 |
| Allocations from Group ALM | 106 | 21 | 94 | 3 | (59) | 21 | (164) | (22) | 0 |
| Income | 1,885 | 1,891 | 963 | 468 | 1,877 | (54) | (128) | (44) | 6,857 |
| Credit loss (expense) / recovery | 0 | (1) | 0 | 0 | 2 | 0 | 0 | (3) | (3) |
| Total operating income | 1,885 | 1,889 | 963 | 468 | 1,879 | (54) | (128) | (47) | 6,855 |
| Personnel expenses | 615 | 1,202 | 213 | 183 | 728 | 943 | 8 | 7 | 3,899 |
| General and administrative expenses | 134 | 151 | 61 | 57 | 189 | 1,058 | 3 | 59 | 1,711 |
| Services (to) / from CC and other BDs | 583 | 318 | 287 | 137 | 717 | (2,097) | (13) | 69 | 0 |
| *of which: services from CC – Services* | *562* | *315* | *311* | *142* | *690* | *(2,104)* | *29* | *56* | *0* |
| Depreciation and impairment of property, equipment and software | 1 | 0 | 4 | 0 | 6 | 231 | 0 | 0 | 242 |
| Amortization and impairment of intangible assets | 1 | 13 | 0 | 1 | 3 | 5 | 0 | 0 | 23 |
| Total operating expenses[1] | 1,333 | 1,685 | 564 | 378 | 1,643 | 140 | (2) | 135 | 5,876 |
| **Operating profit / (loss) before tax** | **552** | **204** | **399** | **90** | **236** | **(193)** | **(127)** | **(182)** | **979** |
| Tax expense / (benefit) | | | | | | | | | 265 |
| **Net profit / (loss)** | | | | | | | | | **713** |
| As of 31 December 2016 | | | | | | | | | |
| **Total assets** | **115,539** | **65,882** | **139,945** | **12,026** | **242,388** | **23,813** | **267,275** | **68,485** | **935,353** |

1 Refer to Note 15 for information on restructuring expenses. 2 Figures in this table may differ from those originally published in quarterly and annual reports due to adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.

## Note 3 Net fee and commission income

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Underwriting fees | 376 | 233 | 246 | 61 | 53 |
| *of which: equity underwriting fees* | *238* | *142* | *113* | *68* | *111* |
| *of which: debt underwriting fees* | *138* | *92* | *133* | *50* | *4* |
| M&A and corporate finance fees | 177 | 256 | 139 | (31) | 27 |
| Brokerage fees | 943 | 852 | 968 | 11 | (3) |
| Investment fund fees | 814 | 788 | 814 | 3 | 0 |
| Portfolio management and advisory fees | 2,038 | 2,069 | 1,966 | (1) | 4 |
| Other | 459 | 426 | 426 | 8 | 8 |
| **Total fee and commission income** | **4,807** | **4,625** | **4,560** | **4** | **5** |
| Brokerage fees paid | 166 | 195 | 197 | (15) | (16) |
| Other | 271 | 266 | 242 | 2 | 12 |
| **Total fee and commission expense** | **436** | **461** | **440** | **(5)** | **(1)** |
| **Net fee and commission income** | **4,371** | **4,164** | **4,121** | **5** | **6** |
| *of which: net brokerage fees* | *777* | *657* | *771* | *18* | *1* |

## Note 4 Other income

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| **Associates and subsidiaries** | | | | | |
| Net gains / (losses) from disposals of subsidiaries[1] | (4) | 27 | (123) | | (97) |
| Share of net profits of associates | 19 | 17 | 18 | 12 | 6 |
| **Total** | **15** | **44** | **(104)** | **(66)** | |
| **Financial assets available for sale** | | | | | |
| Net gains / (losses) from disposals | 6 | 92 | 76 | (93) | (92) |
| Impairment charges | (14) | 0 | 0 | | |
| **Total** | **(8)** | **91** | **76** | | |
| Net income from properties (excluding net gains / (losses) from disposals)[2] | 6 | 6 | 7 | 0 | (14) |
| Net gains / (losses) from disposals of properties held for sale | 0 | 5 | 0 | (100) | |
| Net gains / (losses) from disposals of loans and receivables | 17 | 1 | (1) | | |
| Other | 30 | 137 | 40 | (78) | (25) |
| **Total other income** | **60** | **284** | **17** | **(79)** | **253** |

1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to disposed foreign subsidiaries and branches. 2 Includes net rent received from third parties and net operating expenses.

## Note 5 Personnel expenses

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Salaries and variable compensation | 2,434 | 2,282 | 2,340 | 7 | 4 |
| Wealth Management Americas: Financial advisor compensation[1] | 987 | 964 | 909 | 2 | 9 |
| Contractors | 93 | 99 | 101 | (6) | (8) |
| Social security | 198 | 188 | 181 | 5 | 9 |
| Pension and other post-employment benefit plans | 199 | 162 | 199 | 23 | 0 |
| Other personnel expenses | 133 | 137 | 170 | (3) | (22) |
| **Total personnel expenses[2]** | **4,044** | **3,832** | **3,899** | **6** | **4** |

1 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated on the basis of financial advisor productivity, firm tenure, assets and other variables. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. 2 Includes restructuring expenses. Refer to Note 15 for more information.

## Note 6 General and administrative expenses

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Occupancy | 216 | 246 | 231 | (12) | (6) |
| Rent and maintenance of IT and other equipment | 144 | 132 | 140 | 9 | 3 |
| Communication and market data services | 154 | 149 | 166 | 3 | (7) |
| Administration[1] | 222 | 447 | 199 | (50) | 12 |
| Marketing and public relations | 92 | 137 | 98 | (33) | (6) |
| Travel and entertainment | 86 | 100 | 115 | (14) | (25) |
| Professional fees | 253 | 359 | 276 | (30) | (8) |
| Outsourcing of IT and other services | 370 | 410 | 433 | (10) | (15) |
| Provisions for litigation, regulatory and similar matters[2] | 33 | 264 | 39 | (88) | (15) |
| Other | 30 | 23 | 13 | 30 | 131 |
| **Total general and administrative expenses[3]** | 1,601 | 2,267 | 1,711 | (29) | (6) |

1 Administration costs include net expenses related to the UK bank levy (first quarter of 2017: credit of CHF 25 million; fourth quarter of 2016: expense of CHF 132 million). 2 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. Refer to Note 13 for more information. Also includes recoveries from third parties (first quarter of 2017: CHF 1 million; fourth quarter of 2016: CHF 10 million; first quarter of 2016: CHF 3 million). 3 Includes restructuring expenses. Refer to Note 15 for more information.

## Note 7 Income taxes

UBS AG recognized an income tax expense of CHF 364 million for the first quarter of 2017 compared with an income tax expense of CHF 265 million for the first quarter of 2016.

The current tax expense was CHF 236 million compared with CHF 172 million in the same quarter a year earlier and related to taxable profits of UBS Switzerland AG and other subsidiaries and branches.

Deferred tax expenses were CHF 128 million in the first quarter of 2017 compared with CHF 93 million in the first quarter of 2016 and mainly related to the amortization of deferred tax assets previously recognized in relation to Swiss tax losses carried forward and deductible temporary differences to reflect their offset against profits for the quarter.

The interim Financial Statements have been prepared on the basis that UBS Limited is able to offset part of its taxable profits against losses transferred from UBS AG. During 2016, the UK tax authorities indicated that they do not agree with this tax return filing position. If the authorities ultimately prevail on this point, UBS Limited would incur a further reduction in recognized deferred tax assets of approximately CHF 60 million, as well as additional current tax expenses for periods from 2014 onward of approximately CHF 80 million.

## Note 8 Fair value measurement

This Note provides fair value measurement information for both financial and non-financial instruments and should be read in conjunction with “Note 22 Fair value measurement” in the “Consolidated financial statements” section of the Annual Report 2016, which provides more information on valuation principles, valuation governance, valuation techniques, valuation adjustments, fair value hierarchy classification, valuation inputs, sensitivity of fair value measurements and methods applied to calculate fair values for financial instruments not measured at fair value.

## Note 8 Fair value measurement (continued)

### a) Fair value hierarchy

The fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value is summarized in the table below.

**Determination of fair values from quoted market prices or valuation techniques[1]**

| | 31.3.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Assets measured at fair value on a recurring basis** | | | | | | | | |
| Financial assets held for trading[2] | 83,728 | 17,539 | 1,474 | 102,741 | 76,046 | 14,377 | 1,689 | 92,112 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *11,977* | *1,584* | *0* | *13,561* | *10,500* | *1,319* | *0* | *11,820* |
| *Corporate and municipal bonds* | *164* | *8,553* | *703* | *9,421* | *58* | *6,722* | *591* | *7,371* |
| *Loans* | *0* | *1,852* | *448* | *2,300* | *0* | *1,356* | *681* | *2,037* |
| *Investment fund units* | *4,441* | *3,783* | *20* | *8,244* | *6,114* | *3,521* | *63* | *9,698* |
| *Asset-backed securities* | *0* | *462* | *219* | *681* | *0* | *470* | *215* | *685* |
| *Equity instruments* | *58,398* | *684* | *9* | *59,092* | *50,916* | *397* | *65* | *51,378* |
| *Financial assets for unit-linked investment contracts* | *8,747* | *621* | *74* | *9,441* | *8,459* | *591* | *74* | *9,123* |
| Positive replacement values | 598 | 118,669 | 2,282 | 121,549 | 434 | 155,428 | 2,549 | 158,411 |
| *of which:* | | | | | | | | |
| *Interest rate contracts* | *0* | *53,168* | *168* | *53,336* | *8* | *57,703* | *278* | *57,988* |
| *Credit derivative contracts* | *0* | *2,329* | *1,166* | *3,495* | *0* | *2,562* | *1,313* | *3,875* |
| *Foreign exchange contracts* | *313* | *45,036* | *202* | *45,551* | *263* | *75,607* | *222* | *76,092* |
| *Equity / index contracts* | *1* | *16,649* | *731* | *17,381* | *1* | *17,274* | *729* | *18,003* |
| *Commodity contracts* | *0* | *1,455* | *9* | *1,464* | *0* | *2,269* | *8* | *2,277* |
| Financial assets designated at fair value | 23,081 | 24,090 | 1,588 | 48,760 | 39,641 | 23,304 | 2,079 | 65,024 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *22,093* | *3,460* | *0* | *25,552* | *39,439* | *4,361* | *0* | *43,799* |
| *Corporate and municipal bonds* | *809* | *18,595* | *0* | *19,404* | *15* | *16,860* | *0* | *16,875* |
| *Loans (including structured loans)* | *0* | *2,013* | *578* | *2,591* | *0* | *2,043* | *1,195* | *3,238* |
| *Structured reverse repurchase and securities borrowing agreements* | *0* | *22* | *731* | *753* | *0* | *40* | *644* | *684* |
| *Other* | *179* | *0* | *280* | *459* | *187* | *0* | *240* | *427* |
| Financial assets available for sale | 7,782 | 7,908 | 546 | 16,235 | 6,299 | 8,891 | 486 | 15,676 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *5,518* | *267* | *0* | *5,785* | *5,444* | *450* | *0* | *5,894* |
| *Corporate and municipal bonds* | *2,089* | *3,953* | *12* | *6,053* | *646* | *4,939* | *12* | *5,596* |
| *Investment fund units* | *0* | *69* | *122* | *191* | *0* | *51* | *126* | *177* |
| *Asset-backed securities* | *0* | *3,539* | *0* | *3,539* | *0* | *3,381* | *0* | *3,381* |
| *Equity instruments* | *170* | *81* | *400* | *651* | *204* | *71* | *336* | *611* |
| Non-financial assets | | | | | | | | |
| Precious metals and other physical commodities | 4,628 | 0 | 0 | 4,628 | 4,583 | 0 | 0 | 4,583 |
| **Assets measured at fair value on a non-recurring basis** | | | | | | | | |
| Other assets[3] | 5,009 | 123 | 35 | 5,167 | 5,060 | 131 | 56 | 5,248 |
| **Total assets measured at fair value** | 124,825 | 168,330 | 5,925 | 299,081 | 132,064 | 202,132 | 6,860 | 341,056 |

## Note 8 Fair value measurement (continued)

**Determination of fair values from quoted market prices or valuation techniques (continued)[1]**

| | 31.3.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Liabilities measured at fair value on a recurring basis** | | | | | | | | |
| Trading portfolio liabilities | 23,422 | 5,027 | 128 | 28,576 | 18,808 | 3,898 | 119 | 22,825 |
| *of which:* | | | | | | | | |
| *Government bills / bonds* | *7,438* | *501* | *0* | *7,939* | *5,573* | *648* | *0* | *6,221* |
| *Corporate and municipal bonds* | *97* | *4,194* | *38* | *4,329* | *12* | *2,927* | *37* | *2,976* |
| *Investment fund units* | *603* | *154* | *0* | *757* | *484* | *91* | *20* | *595* |
| *Equity instruments* | *15,284* | *176* | *89* | *15,549* | *12,740* | *227* | *62* | *13,028* |
| Negative replacement values | 608 | 115,784 | 3,572 | 119,964 | 539 | 149,255 | 4,016 | 153,810 |
| *of which:* | | | | | | | | |
| *Interest rate contracts* | *0* | *46,013* | *362* | *46,376* | *12* | *51,990* | *475* | *52,476* |
| *Credit derivative contracts* | *0* | *2,860* | *1,504* | *4,364* | *0* | *3,269* | *1,538* | *4,807* |
| *Foreign exchange contracts* | *341* | *45,354* | *149* | *45,844* | *274* | *71,668* | *148* | *72,089* |
| *Equity / index contracts* | *0* | *20,336* | *1,550* | *21,886* | *1* | *20,254* | *1,854* | *22,109* |
| *Commodity contracts* | *0* | *1,182* | *1* | *1,183* | *0* | *2,040* | *1* | *2,041* |
| Financial liabilities designated at fair value | 3 | 44,250 | 12,386 | 56,640 | 2 | 44,007 | 11,008 | 55,017 |
| *of which:* | | | | | | | | |
| *Issued debt instruments* | *2* | *40,406* | *10,232* | *50,640* | *0* | *40,242* | *9,688* | *49,930* |
| *Over-the-counter debt instruments* | *2* | *3,709* | *1,861* | *5,572* | *2* | *3,611* | *1,050* | *4,663* |
| *Structured repurchase agreements* | *0* | *122* | *288* | *410* | *0* | *130* | *266* | *395* |
| *Loan commitments and guarantees* | *0* | *12* | *5* | *18* | *0* | *25* | *5* | *29* |
| Other liabilities – amounts due under unit-linked investment contracts | 0 | 9,579 | 0 | 9,579 | 0 | 9,286 | 0 | 9,286 |
| **Liabilities measured at fair value on a non-recurring basis** | | | | | | | | |
| Other liabilities[3] | 0 | 5,052 | 0 | 5,052 | 0 | 5,213 | 0 | 5,213 |
| **Total liabilities measured at fair value** | 24,033 | 179,692 | 16,086 | 219,812 | 19,349 | 211,660 | 15,143 | 246,152 |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 31 March 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 45 million (of which CHF 55 million were net Level 2 assets and CHF 10 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 31 December 2016, net bifurcated embedded derivative assets held at fair value totaling CHF 50 million (of which CHF 58 million were net Level 2 assets and CHF 8 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. 2 Financial assets held for trading do not include precious metals and other physical commodities. 3 Other assets and other liabilities primarily consist of assets held for sale as well as assets and liabilities of a disposal group held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell. Refer to Note 15 for more information.

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which the instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
- Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data or
- Level 3 – valuation techniques for which significant inputs are not based on observable market data.

## Note 8 Fair value measurement (continued)

### b) Valuation adjustments

#### Day-1 reserves

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period.

Deferred day-1 profit or loss is generally released into *Net trading income* when pricing of equivalent products or the underlying parameters become observable or when the transaction is closed out.

**Deferred day-1 profit or loss**

| | For the quarter ended | | |
|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 |
| **Balance at the beginning of the period** | 371 | 403 | 421 |
| Profit / (loss) deferred on new transactions | 51 | 26 | 123 |
| (Profit) / loss recognized in the income statement | (53) | (74) | (58) |
| Foreign currency translation | (3) | 15 | (13) |
| **Balance at the end of the period** | 365 | 371 | 474 |

### c) Transfers between Level 1 and Level 2

The amounts disclosed reflect transfers between Level 1 and Level 2 for instruments that were held for the entire reporting period.

Assets totaling approximately CHF 1.0 billion, which were mainly comprised of financial assets designated at fair value and financial assets available for sale, primarily corporate and municipal bonds, were transferred from Level 2 to Level 1 during the first three months of 2017, generally due to increased levels of trading activity observed within the market. Liabilities transferred from Level 2 to Level 1 during the first three months of 2017 were negligible. Furthermore, there were no significant transfers from Level 1 to Level 2 recorded during the first three months of 2017.

**Note 8 Fair value measurement (continued)**

## d) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities together with the valuation techniques used to measure fair value, the significant inputs used in the valuation technique that are considered unobservable and a range of values for those unobservable inputs.

The range of values represents the highest and lowest level input used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input, but rather the different underlying characteristics of the relevant assets and liabilities. The ranges and weighted averages will vary from period to period and from parameter to parameter based on characteristics of the instruments held at each balance sheet date. Further, the ranges and weighted averages of unobservable inputs may differ across other financial institutions due to the diversity of the products in each firm's inventory.

The significant unobservable inputs disclosed in the table below are generally consistent with those included in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016. A description of the potential effect that a change in each unobservable input in isolation may have on a fair value measurement, including information to facilitate an understanding of factors that give rise to the input ranges shown, is also provided in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016.

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 31.3.17 | | | 31.12.16 | | | |
| *CHF billion* | 31.3.17 | 31.12.16 | 31.3.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Financial assets held for trading / Trading portfolio liabilities, Financial assets / liabilities designated at fair value and Financial assets available for sale** | | | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.7* | *0.6* | *0.0* | *0.0* | Relative value to market comparable | Bond price equivalent | 0 | 128 | 86 | 0 | 128 | 88 | points |
| *Traded loans, loans designated at fair value, loan commitments and guarantees* | *1.2* | *2.0* | *0.0* | *0.0* | Relative value to market comparable | Loan price equivalent | 82 | 100 | 94 | 39 | 103 | 94 | points |
| | | | | | Discounted expected cash flows | Credit spread | 43 | 454 | | 71 | 554 | | basis points |
| | | | | | Market comparable and securitization model | Discount margin | 0 | 15 | 2 | 0 | 16 | 2 | % |
| *Structured (reverse) repurchase agreements* | *0.7* | *0.6* | *0.3* | *0.3* | Discounted expected cash flows | Funding spread | 15 | 198 | | 15 | 195 | | basis points |
| *Issued and OTC debt instruments*[3] | | | *12.1* | *10.7* | | | | | | | | | |

## Note 8 Fair value measurement (continued)

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities (continued)**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 31.3.17 | | | 31.12.16 | | | |
| CHF billion | 31.3.17 | 31.12.16 | 31.3.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Replacement values** | | | | | | | | | | | | | |
| *Interest rate contracts* | *0.2* | *0.3* | *0.4* | *0.5* | Option model | Volatility of interest rates | 25 | 267 | | 26 | 176 | | % |
| | | | | | | Rate-to-rate correlation | 84 | 94 | | 84 | 94 | | % |
| | | | | | | Intra-curve correlation | 36 | 94 | | 36 | 94 | | % |
| *Credit derivative contracts* | *1.2* | *1.3* | *1.5* | *1.5* | Discounted expected cash flow based on modeled defaults and recoveries | Credit spreads | 0 | 668 | | 0 | 791 | | basis points |
| | | | | | | Upfront price points | 3 | 21 | | 1 | 13 | | % |
| | | | | | | Recovery rates | 0 | 50 | | 0 | 50 | | % |
| | | | | | | Credit index correlation | 10 | 85 | | 10 | 85 | | % |
| | | | | | | Discount margin | (6) | 12 | | (1) | 68 | | % |
| | | | | | | Credit pair correlation | 59 | 84 | | 59 | 100 | | % |
| | | | | | Discounted cash flow projection on underlying bond | Constant prepayment rate | 1 | 25 | | 1 | 15 | | % |
| | | | | | | Constant default rate | 1 | 7 | | 1 | 8 | | % |
| | | | | | | Loss severity | 40 | 100 | | 40 | 100 | | % |
| | | | | | | Discount margin | 0 | 11 | | 0 | 11 | | % |
| | | | | | | Bond price equivalent | 3 | 109 | | 3 | 100 | | points |
| *Equity / index contracts* | *0.7* | *0.7* | *1.6* | *1.9* | Option model | Equity dividend yields | 0 | 20 | | 0 | 15 | | % |
| | | | | | | Volatility of equity stocks, equity and other indices | 0 | 202 | | 0 | 150 | | % |
| | | | | | | Equity-to-FX correlation | (45) | 82 | | (45) | 82 | | % |
| | | | | | | Equity-to-equity correlation | (31) | 97 | | 12 | 98 | | % |

1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par (e.g., 100 points would be 100% of par). 2 Weighted averages are provided for non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to derivative contracts as this would not be meaningful. 3 Valuation techniques, significant unobservable inputs and the respective input ranges for issued debt instruments and OTC debt instruments are the same as the equivalent derivative or structured financing instruments presented elsewhere in this table.

**Note 8 Fair value measurement (continued)**

## e) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible alternative assumptions would change fair value significantly, and the estimated effect thereof.

The table shown presents the favorable and unfavorable effects for each class of financial assets and liabilities for which the potential change in fair value is considered significant. The sensitivity data presented represent an estimation of valuation uncertainty based on reasonably possible alternative values for Level 3 inputs at the balance sheet date and does not represent the estimated effect of stress scenarios. Typically, these financial assets and liabilities are sensitive to a combination of inputs from Levels 1 through 3. Although well-defined interdependencies may exist between Levels 1–2 and Level 3 parameters (e.g., between interest rates, which are generally Level 1 or Level 2, and prepayments, which are generally Level 3), these have not been incorporated in the table. Further, direct interrelationships between the Level 3 parameters are not a significant element of the valuation uncertainty.

**Sensitivity of fair value measurements to changes in unobservable input assumptions**

| | 31.3.17 | | 31.12.16 | |
|---|---|---|---|---|
| *CHF million* | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] |
| Corporate and municipal bonds | 35 | (30) | 34 | (39) |
| Traded loans, loans designated at fair value, loan commitments and guarantees | 78 | (7) | 82 | (10) |
| Equity instruments | 70 | (50) | 67 | (47) |
| Interest rate derivative contracts, net | 28 | (31) | 41 | (42) |
| Credit derivative contracts, net | 114 | (147) | 131 | (183) |
| Foreign exchange derivative contracts, net | 11 | (6) | 17 | (8) |
| Equity / index derivative contracts, net | 61 | (65) | 63 | (63) |
| Issued debt instruments | 81 | (81) | 96 | (93) |
| Other | 21 | (26) | 29 | (31) |
| **Total** | 499 | (442) | 560 | (517) |

1 Of the total favorable changes, CHF 76 million as of 31 March 2017 (31 December 2016: CHF 75 million) related to financial assets available for sale. Of the total unfavorable changes, CHF 55 million as of 31 March 2017 (31 December 2016: CHF 55 million) related to financial assets available for sale.

## f) Level 3 instruments: movements during the period

### Significant changes in Level 3 instruments

The table on the following pages presents additional information about Level 3 assets and liabilities measured at fair value on a recurring basis. Level 3 assets and liabilities may be hedged with instruments classified as Level 1 or Level 2 in the fair value hierarchy and, as a result, realized and unrealized gains and losses included in the table may not include the effect of related hedging activity. Furthermore, the realized and unrealized gains and losses presented within the table are not limited solely to those arising from Level 3 inputs, as valuations are generally derived from both observable and unobservable parameters.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Assets transferred into and out of Level 3 totaled CHF 0.3 billion and CHF 0.6 billion, respectively. Transfers into Level 3 were primarily comprised of interest rate derivative contracts and were mainly due to decreased observability of the respective rates volatility inputs. Transfers out of Level 3 were primarily comprised of credit derivative contracts and loans, reflecting increased observability of the respective credit spread inputs.

Liabilities transferred into and out of Level 3 totaled CHF 0.9 billion and CHF 1.9 billion, respectively. Transfers into Level 3 were primarily comprised of equity- and credit-linked issued debt instruments, due to decreased observability of the respective equity volatility and credit spread inputs used to determine the fair value of the options embedded in these structures. Transfers out of Level 3 were primarily comprised of equity-linked issued debt instruments and equity / index derivative contracts resulting from changes in the availability of the observable equity volatility inputs used to determine the fair value of the options embedded in these structures.

## Note 8 Fair value measurement (continued)

**Movements of Level 3 instruments**

| | | Total gains / losses included in comprehensive income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF billion* | **Balance as of 31 December 2015** | Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | **Balance as of 31 March 2016** |
| Financial assets held for trading | 2.1 | 0.2 | *0.2* | 0.5 | (1.0) | 1.2 | 0.0 | 0.4 | (0.2) | (0.1) | 3.1 |
| *of which:* | | | | | | | | | | | |
| *Corporate bonds and municipal bonds, including bonds issued by financial institutions* | *0.7* | *0.1* | *0.1* | *0.4* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *1.0* |
| *Loans* | *0.8* | *0.0* | *0.0* | *0.0* | *(0.7)* | *1.2* | *0.0* | *0.0* | *(0.1)* | *(0.1)* | *1.2* |
| *Asset-backed securities* | *0.2* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* | *0.2* |
| *Other* | *0.4* | *0.2* | *0.1* | *0.1* | *(0.2)* | *0.0* | *0.0* | *0.2* | *0.0* | *0.0* | *0.6* |
| Financial assets designated at fair value | 3.3 | (0.2) | *(0.2)* | 0.0 | 0.0 | 0.2 | (0.2) | 0.4 | (0.1) | (0.1) | 3.3 |
| *of which:* | | | | | | | | | | | |
| *Loans (including structured loans)* | *1.7* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.2* | *(0.1)* | *0.4* | *(0.1)* | *(0.1)* | *1.7* |
| *Structured reverse repurchase and securities borrowing agreements* | *1.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *1.4* |
| *Other* | *0.1* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* |
| Financial assets available for sale | 0.7 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| Positive replacement values | 2.9 | (0.5) | *(0.6)* | 0.0 | 0.0 | 0.3 | (0.7) | 0.4 | (0.3) | (0.1) | 2.0 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.1* | *(0.2)* | *0.0* | *0.8* |
| *Foreign exchange contracts* | *0.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.4* |
| *Equity / index contracts* | *1.0* | *(0.3)* | *(0.3)* | *0.0* | *0.0* | *0.1* | *(0.2)* | *0.1* | *(0.1)* | *0.0* | *0.7* |
| *Other* | *0.1* | *(0.3)* | *(0.3)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.2* | *0.0* | *0.0* | *0.1* |
| Negative replacement values | 3.3 | (0.4) | *(0.5)* | 0.0 | 0.0 | 0.7 | (0.9) | 0.5 | (0.2) | 0.0 | 3.1 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.2* | *0.1* | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.1* | *0.0* | *0.0* | *1.3* |
| *Foreign exchange contracts* | *0.2* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* |
| *Equity / index contracts* | *1.4* | *(0.3)* | *(0.4)* | *0.0* | *0.0* | *0.7* | *(0.4)* | *0.0* | *(0.1)* | *0.0* | *1.3* |
| *Other* | *0.3* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.4* | *0.0* | *0.0* | *0.3* |
| Financial liabilities designated at fair value | 10.7 | 0.1 | *0.1* | 0.0 | 0.0 | 1.7 | (0.6) | 0.3 | (1.1) | (0.3) | 10.7 |
| *of which:* | | | | | | | | | | | |
| *Issued debt instruments* | *9.3* | *0.1* | *0.1* | *0.0* | *0.0* | *0.9* | *(0.5)* | *0.3* | *(1.1)* | *(0.3)* | *8.8* |
| *Over-the-counter debt instruments* | *0.8* | *0.0* | *0.0* | *0.0* | *0.0* | *0.8* | *(0.1)* | *0.0* | *0.0* | *0.0* | *1.4* |
| *Structured repurchase agreements* | *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.6* |

1 Total Level 3 assets as of 31 March 2017 were CHF 5.9 billion (31 December 2016: CHF 6.9 billion). Total Level 3 liabilities as of 31 March 2017 were CHF 16.1 billion (31 December 2016: CHF 15.1 billion).

## Note 8 Fair value measurement (continued)

| Balance as of 31 December 2016 | Total gains / losses included in comprehensive income: Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | Balance as of 31 March 2017[1] |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.7 | 0.1 | *0.0* | 0.3 | (1.1) | 0.6 | 0.0 | 0.1 | (0.2) | 0.0 | 1.5 |
| *0.6* | *0.1* | *0.1* | *0.1* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.7* |
| *0.7* | *0.0* | *0.0* | *0.1* | *(0.9)* | *0.6* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.4* |
| *0.2* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* |
| *0.2* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* |
| 2.1 | 0.1 | *0.0* | 0.0 | 0.0 | 0.5 | (1.0) | 0.0 | (0.1) | 0.0 | 1.6 |
| *1.2* | *0.1* | *0.0* | *0.0* | *0.0* | *0.1* | *(0.7)* | *0.0* | *(0.1)* | *0.0* | *0.6* |
| *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.4* | *(0.3)* | *0.0* | *0.0* | *0.0* | *0.7* |
| *0.2* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.3* |
| 0.5 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| 2.5 | (0.3) | *(0.1)* | 0.0 | 0.0 | 1.1 | (0.9) | 0.2 | (0.3) | 0.0 | 2.3 |
| *1.3* | *(0.1)* | *0.1* | *0.0* | *0.0* | *0.9* | *(0.7)* | *0.1* | *(0.2)* | *0.0* | *1.2* |
| *0.2* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* |
| *0.7* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* | *(0.1)* | *0.0* | *(0.1)* | *0.0* | *0.7* |
| *0.3* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.0* | *0.2* |
| 4.0 | 0.0 | *0.1* | 0.0 | 0.0 | 0.5 | (0.3) | 0.0 | (0.7) | 0.0 | 3.6 |
| *1.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.3* | *0.0* | *0.0* | *(0.3)* | *0.0* | *1.5* |
| *0.1* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* |
| *1.9* | *0.1* | *0.1* | *0.0* | *0.0* | *0.2* | *(0.3)* | *0.0* | *(0.4)* | *0.0* | *1.6* |
| *0.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.4* |
| 11.0 | 1.0 | *0.8* | 0.0 | 0.0 | 2.5 | (1.7) | 0.8 | (1.1) | (0.1) | 12.4 |
| *9.7* | *0.7* | *0.6* | *0.0* | *0.0* | *1.4* | *(1.1)* | *0.6* | *(1.1)* | *(0.1)* | *10.2* |
| *1.1* | *0.3* | *0.2* | *0.0* | *0.0* | *0.8* | *(0.4)* | *0.1* | *0.0* | *0.0* | *1.9* |
| *0.3* | *0.0* | *0.0* | *0.0* | *0.0* | *0.3* | *(0.3)* | *0.0* | *0.0* | *0.0* | *0.3* |

## Note 8 Fair value measurement (continued)

### g) Financial instruments not measured at fair value

The table below reflects the estimated fair values of financial instruments not measured at fair value.

**Financial instruments not measured at fair value**

| | 31.3.17 | | 31.12.16 | |
|---|---|---|---|---|
| *CHF billion* | Carrying value | Fair value | Carrying value | Fair value |
| **Assets** | | | | |
| Cash and balances with central banks | 108.9 | 108.9 | 107.8 | 107.8 |
| Due from banks | 14.2 | 14.2 | 13.1 | 13.1 |
| Cash collateral on securities borrowed | 18.5 | 18.5 | 15.1 | 15.1 |
| Reverse repurchase agreements | 77.0 | 77.0 | 66.2 | 66.2 |
| Cash collateral receivables on derivative instruments | 22.5 | 22.5 | 26.7 | 26.7 |
| Loans | 310.8 | 313.6 | 307.0 | 310.4 |
| Financial assets held to maturity | 9.0 | 8.8 | 9.3 | 9.1 |
| Other assets | 20.8 | 20.8 | 18.5 | 18.5 |
| **Liabilities** | | | | |
| Due to banks | 8.7 | 8.7 | 10.6 | 10.6 |
| Cash collateral on securities lent | 3.1 | 3.1 | 2.8 | 2.8 |
| Repurchase agreements | 10.6 | 10.6 | 6.6 | 6.6 |
| Cash collateral payables on derivative instruments | 29.9 | 29.9 | 35.5 | 35.5 |
| Due to customers | 455.4 | 456.1 | 450.2 | 450.6 |
| Debt issued | 83.6 | 86.1 | 79.0 | 81.1 |
| Other liabilities | 38.0 | 38.0 | 39.0 | 39.0 |

The fair values included in the table above were calculated for disclosure purposes only. The fair value valuation techniques and assumptions relate only to the fair value of UBS's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimation, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another.

## Note 9 Derivative instruments

### a) Derivative instruments

| *As of 31.3.17, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 53.3 | 1,099 | 46.4 | 1,018 | 10,344 |
| Credit derivative contracts | 3.5 | 126 | 4.4 | 132 | 2 |
| Foreign exchange contracts | 45.6 | 2,645 | 45.8 | 2,579 | 12 |
| Equity / index contracts | 17.4 | 293 | 21.9 | 360 | 68 |
| Commodity contracts | 1.5 | 35 | 1.2 | 29 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.2 | 34 | 0.2 | 20 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 26 | 0.2 | 24 | |
| **Total derivative instruments, based on IFRS netting[4]** | 121.5 | 4,259 | 120.0 | 4,162 | 10,435 |
| Further netting potential not recognized on the balance sheet[5] | (107.9) | | (100.9) | | |
| *of which: netting of recognized financial liabilities / assets* | *(86.4)* | | *(86.4)* | | |
| *of which: netting with collateral received / pledged* | *(21.6)* | | *(14.5)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 13.6 | | 19.1 | | |

| *As of 31.12.16, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 58.0 | 1,152 | 52.5 | 1,060 | 9,730 |
| Credit derivative contracts | 3.9 | 123 | 4.8 | 140 | |
| Foreign exchange contracts | 76.1 | 2,470 | 72.1 | 2,286 | 6 |
| Equity / index contracts | 18.0 | 269 | 22.1 | 318 | 55 |
| Commodity contracts | 2.3 | 39 | 2.0 | 36 | 9 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.1 | 18 | 0.1 | 10 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.1 | 13 | 0.2 | 11 | |
| **Total derivative instruments, based on IFRS netting[4]** | 158.4 | 4,084 | 153.8 | 3,860 | 9,799 |
| Further netting potential not recognized on the balance sheet[5] | (139.8) | | (129.6) | | |
| *of which: netting of recognized financial liabilities / assets* | *(113.1)* | | *(113.1)* | | |
| *of which: netting with collateral received / pledged* | *(26.7)* | | *(16.6)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 18.6 | | 24.2 | | |

1 In cases where replacement values are presented on a net basis on the balance sheet, the respective notional values of the netted replacement values are still presented on a gross basis. 2 Other notional values relate to derivatives that are cleared through either a central counterparty or an exchange. The fair value of these derivatives is presented on the balance sheet net of the corresponding cash margin under Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments and was not material for all periods presented. 3 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as replacement values. 4 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously. 5 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 9 Derivative instruments (continued)

### b) Cash collateral on derivative instruments

| CHF billion | Receivables 31.3.17 | Payables 31.3.17 | Receivables 31.12.16 | Payables 31.12.16 |
|---|---|---|---|---|
| Cash collateral on derivative instruments, based on IFRS netting[1] | 22.5 | 29.9 | 26.7 | 35.5 |
| Further netting potential not recognized on the balance sheet[2] | (13.2) | (18.1) | (15.1) | (22.2) |
| *of which: netting of recognized financial liabilities / assets* | *(11.6)* | *(16.8)* | *(14.2)* | *(20.8)* |
| *of which: netting with collateral received / pledged* | *(1.6)* | *(1.3)* | *(1.0)* | *(1.4)* |
| **Cash collateral on derivative instruments, after consideration of further netting potential** | 9.3 | 11.8 | 11.5 | 13.3 |

1 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously. Effective 3 January 2017, interest rate swaps and credit derivatives transacted with the Chicago Mercantile Exchange (CME) were legally converted from the previous collateral model to a settlement model resulting in a derecognition of the associated assets and liabilities. Previously, UBS applied IAS 32 netting principles to offset the fair value of CME interest rate swaps with the associated variation margin. Gross cash collateral receivables and payables on derivative instruments and corresponding IAS 32 netting, as presented in "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016, decreased by approximately CHF 13 billion as of 31 March 2017, with no change to net cash collateral receivables and payables on derivative instruments recognized and presented on the balance sheet. 2 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 10 Other assets and liabilities

| CHF million | 31.3.17 | 31.12.16 |
|---|---|---|
| **Other assets** | | |
| Prime brokerage receivables[1] | 11,372 | 9,828 |
| Recruitment loans to financial advisors | 2,952 | 3,087 |
| Other loans to financial advisors | 566 | 471 |
| Bail deposit[2] | 1,212 | 1,213 |
| Accrued interest income | 760 | 526 |
| Accrued income – other | 1,097 | 822 |
| Prepaid expenses | 1,071 | 1,008 |
| Settlement and clearing accounts | 498 | 516 |
| VAT and other tax receivables | 233 | 261 |
| Properties and other non-current assets held for sale | 92 | 111 |
| Assets of disposal group held for sale[3] | 5,074 | 5,137 |
| Other | 2,553 | 2,433 |
| **Total other assets** | 27,482 | 25,412 |
| **Other liabilities** | | |
| Prime brokerage payables[1] | 31,496 | 31,973 |
| Amounts due under unit-linked investment contracts | 9,579 | 9,286 |
| Compensation-related liabilities | 3,654 | 5,256 |
| *of which: accrued expenses* | *989* | *2,367* |
| *of which: other deferred compensation plans* | *1,459* | *1,623* |
| *of which: net defined benefit pension and post-employment liabilities* | *1,205* | *1,266* |
| Third-party interest in consolidated investment funds | 397 | 751 |
| Settlement and clearing accounts | 918 | 1,011 |
| Current and deferred tax liabilities | 1,094 | 911 |
| VAT and other tax payables | 479 | 487 |
| Deferred income | 202 | 168 |
| Accrued interest expenses | 1,384 | 1,571 |
| Other accrued expenses | 2,753 | 2,427 |
| Liabilities of disposal group held for sale[3] | 5,052 | 5,213 |
| Other | 1,056 | 1,390 |
| **Total other liabilities** | 58,064 | 60,443 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage receivables are mainly comprised of margin lending receivables. Prime brokerage payables are mainly comprised of client securities financing and deposits. 2 Refer to item 1 in Note 13b for more information. 3 Refer to Note 15 for more information.

## Note 11 Financial liabilities designated at fair value

| *CHF million* | 31.3.17 | 31.12.16 |
|---|---|---|
| **Issued debt instruments** | | |
| Equity-linked[1] | 31,802 | 29,831 |
| Rates-linked | 9,379 | 10,150 |
| Credit-linked | 3,888 | 4,101 |
| Fixed-rate | 3,100 | 2,972 |
| Other | 2,471 | 2,875 |
| **Total issued debt instruments** | 50,640 | 49,930 |
| **Over-the-counter debt instruments** | 5,572 | 4,663 |
| **Other** | 428 | 425 |
| **Total** | 56,640 | 55,017 |
| *of which: life-to-date own credit (gain) / loss* | *49* | *(141)* |

1 Includes investment fund unit-linked instruments issued.

## Note 12 Debt issued held at amortized cost

| *CHF million* | 31.3.17 | 31.12.16 |
|---|---|---|
| Certificates of deposit | 28,825 | 20,207 |
| Commercial paper | 1,355 | 1,653 |
| Other short-term debt | 5,186 | 4,318 |
| **Short-term debt[1]** | 35,367 | 26,178 |
| Senior fixed-rate bonds | 26,580 | 27,008 |
| Covered bonds | 3,829 | 5,836 |
| Subordinated debt | 9,375 | 11,554 |
| *of which: low-trigger loss-absorbing tier 2 capital instruments* | *8,265* | *10,429* |
| *of which: non-Basel III-compliant tier 2 capital instruments* | *1,109* | *1,125* |
| Debt issued through the central bond institutions of the Swiss regional or cantonal banks | 8,300 | 8,302 |
| Other long-term debt | 112 | 121 |
| **Long-term debt[2]** | 48,196 | 52,820 |
| **Total debt issued held at amortized cost[3]** | 83,563 | 78,998 |

1 Debt with an original maturity of less than one year. 2 Debt with an original maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features. 3 Net of bifurcated embedded derivatives with a net positive fair value of CHF 34 million as of 31 March 2017 (31 December 2016: net positive fair value of CHF 38 million).

## Note 13 Provisions and contingent liabilities

### a) Provisions

| *CHF million* | Operational risks[1] | Litigation, regulatory and similar matters[2] | Restructuring | Loan commitments and guarantees | Real estate | Employee benefits[5] | Other | Total provisions |
|---|---|---|---|---|---|---|---|---|
| Balance as of 31 December 2016 | 50 | 3,261 | 498 | 54 | 138 | 77 | 91 | 4,169 |
| Increase in provisions recognized in the income statement | 5 | 45 | 44 | 4 | 0 | 1 | 9 | 109 |
| Release of provisions recognized in the income statement | 0 | (11) | (14) | (1) | (1) | (2) | (4) | (34) |
| Provisions used in conformity with designated purpose | (4) | (341) | (92) | 0 | (3) | 0 | (4) | (445) |
| Reclassifications | 0 | 0 | 0 | (6) | 0 | 0 | 0 | (6) |
| Foreign currency translation / unwind of discount | (2) | (36) | (3) | 0 | (1) | 1 | 0 | (41) |
| Balance as of 31 March 2017 | 49 | 2,918 | 433[3] | 51 | 133[4] | 76 | 92 | 3,752 |

1 Comprises provisions for losses resulting from security risks and transaction processing risks. 2 Comprises provisions for losses resulting from legal, liability and compliance risks. 3 Consists of personnel related restructuring provisions of CHF 108 million as of 31 March 2017 (31 December 2016: CHF 150 million) and provisions for onerous lease contracts of CHF 324 million as of 31 March 2017 (31 December 2016: CHF 348 million). 4 Consists of reinstatement costs for leasehold improvements of CHF 86 million as of 31 March 2017 (31 December 2016: CHF 85 million) and provisions for onerous lease contracts of CHF 48 million as of 31 March 2017 (31 December 2016: CHF 53 million). 5 Includes provisions for sabbatical and anniversary awards as well as provisions for severance which are not part of restructuring provisions.

Restructuring provisions primarily relate to onerous lease contracts and severance payments. The use of onerous lease provisions is driven by the maturities of the underlying lease contracts. Severance-related provisions are used within a short time period, usually within six months, but potential changes in amount may be triggered when natural staff attrition reduces the number of people affected by a restructuring and therefore the estimated costs.

Information on provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 13b. There are no material contingent liabilities associated with the other classes of provisions.

### b) Litigation, regulatory and similar matters

UBS operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS AG and / or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where UBS may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which UBS believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. UBS makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that UBS has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against UBS, but are nevertheless expected to be, based on UBS's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to select matters could be significant.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

**Note 13 Provisions and contingent liabilities (continued)**

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in Note 13a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require us to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although we therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, we believe that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. For example, the Non-Prosecution Agreement (NPA) described in item 5 of this Note, which we entered into with the US Department of Justice (DOJ), Criminal Division, Fraud Section in connection with our submissions of benchmark interest rates, including, among others, the British Bankers' Association London Interbank Offered Rate (LIBOR), was terminated by the DOJ based on its determination that we had committed a US crime in relation to foreign exchange matters. As a consequence, UBS AG pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, paid a USD 203 million fine and is subject to a three-year term of probation. A guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for UBS. Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate our participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining our capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital management" section of the UBS Group first quarter 2017 report.

**Provisions for litigation, regulatory and similar matters by business division and Corporate Center unit[1]**

| *CHF million* | Wealth Manage-ment | Wealth Management Americas | Personal & Corporate Banking | Asset Manage-ment | Investment Bank | CC – Services | CC – Group ALM | CC – Non-core and Legacy Portfolio | UBS |
|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | 292 | 425 | 78 | 5 | 616 | 259 | 0 | 1,585 | 3,261 |
| Increase in provisions recognized in the income statement | 5 | 38 | 0 | 0 | 0 | 0 | 0 | 1 | 45 |
| Release of provisions recognized in the income statement | (2) | (5) | (1) | 0 | 0 | (4) | 0 | 0 | (11) |
| Provisions used in conformity with designated purpose | (53) | (68) | 0 | (1) | (206) | 0 | 0 | (13) | (341) |
| Foreign currency translation / unwind of discount | 2 | (7) | 0 | 0 | (7) | 0 | 0 | (24) | (36) |
| **Balance as of 31 March 2017** | 244 | 385 | 77 | 4 | 404 | 255 | 0 | 1,550 | 2,918 |

1 Provisions, if any, for the matters described in this Note are recorded in Wealth Management (item 3), Wealth Management Americas (item 4), the Investment Bank (item 8), CC – Services (item 7) and CC – Non-core and Legacy Portfolio (item 2). Provisions, if any, for the matters described in this Note in items 1 and 6 are allocated between Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in this Note in item 5 are allocated between the Investment Bank, CC – Services and CC – Non-core and Legacy Portfolio.

**Note 13 Provisions and contingent liabilities (continued)**

1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions. It is possible that implementation of automatic tax information exchange and other measures relating to cross-border provision of financial services could give rise to further inquiries in the future. UBS has received disclosure orders from the Swiss Federal Tax Administration (FTA) to transfer information based on requests for international administrative assistance in tax matters. The requests concern a number of UBS account numbers pertaining to current and former clients and are based on data from 2006 and 2008. UBS has taken steps to inform affected clients about the administrative assistance proceedings and their procedural rights, including the right to appeal. The requests are based on data received from the German authorities, who seized certain data related to UBS clients booked in Switzerland during their investigations and have apparently shared this data with other European countries. UBS expects additional countries to file similar requests. In addition, the Swiss Federal Supreme Court ruled in 2016 that the double taxation agreement between the Netherlands and Switzerland provides a sufficient legal basis for an administrative assistance group request without specifying the names of the targeted taxpayers, which makes it more likely that similar requests for administrative assistance will be granted by the FTA.

The Swiss Federal Administrative Court ruled in 2016 that in the administrative assistance proceedings related to a French bulk request, UBS has the right to appeal all final FTA client data disclosure orders.

Since 2013, UBS (France) S.A. and UBS AG and certain former employees have been under investigation in France for alleged complicity in having illicitly solicited clients on French territory and regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons. In connection with this investigation, the investigating judges ordered UBS AG to provide bail ("*caution*") of EUR 1.1 billion and UBS (France) S.A. to post bail of EUR 40 million, which was reduced on appeal to EUR 10 million.

In February 2016, the investigating judges notified UBS AG and UBS (France) S.A. that they have closed their investigation. In July 2016, UBS AG and UBS (France) S.A. received the National Financial Prosecutor's recommendation ("*réquisitoire*"). In March 2017, the investigating judges issued the trial order ("*ordonnance de renvoi*") that charges UBS AG and UBS (France) S.A., as well as various former employees, with illicit solicitation of clients on French territory and with participation in the laundering of the proceeds of tax fraud, and which transfers the case to court.

UBS has been notified by the Belgian investigating judge that it is under formal investigation ("*inculpé*") regarding the laundering of proceeds of tax fraud and of banking, financial solicitation by unauthorized persons and serious tax fraud.

In 2015, UBS received inquiries from the US Attorney's Office for the Eastern District of New York and from the US Securities and Exchange Commission (SEC), which are investigating potential sales to US persons of bearer bonds and other unregistered securities in possible violation of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and the registration requirements of the US securities laws. UBS is cooperating with the authorities in these investigations.

UBS has, and reportedly numerous other financial institutions have, received inquiries from authorities concerning accounts relating to the Fédération Internationale de Football Association (FIFA) and other constituent soccer associations and related persons and entities. UBS is cooperating with authorities in these inquiries.

Our balance sheet at 31 March 2017 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages. A subsidiary of UBS, UBS Real Estate Securities Inc. (UBS RESI), acquired pools of residential mortgage loans from originators and (through an affiliate) deposited them into securitization trusts. In this manner, from 2004 through 2007, UBS RESI sponsored approximately USD 80 billion in RMBS, based on the original principal balances of the securities issued.

**Note 13 Provisions and contingent liabilities (continued)**

UBS RESI also sold pools of loans acquired from originators to third-party purchasers. These whole loan sales during the period 2004 through 2007 totaled approximately USD 19 billion in original principal balance.

We were not a significant originator of US residential loans. A branch of UBS originated approximately USD 1.5 billion in US residential mortgage loans during the period in which it was active from 2006 to 2008, and securitized less than half of these loans.

*RMBS-related lawsuits concerning disclosures:* UBS is named as a defendant relating to its role as underwriter and issuer of RMBS in lawsuits related to approximately USD 1.3 billion in original face amount of RMBS underwritten or issued by UBS. Of the USD 1.3 billion in original face amount of RMBS that remains at issue in these cases, approximately USD 506 million was issued in offerings in which a UBS subsidiary transferred underlying loans (the majority of which were purchased from third-party originators) into a securitization trust and made representations and warranties about those loans (UBS-sponsored RMBS). The remaining USD 807 million of RMBS to which these cases relate was issued by third parties in securitizations in which UBS acted as underwriter (third-party RMBS).

UBS is a defendant in a lawsuit brought by the National Credit Union Administration (NCUA) as conservator for certain failed credit unions, asserting misstatements and omissions in the offering documents for RMBS purchased by the credit unions. The lawsuit was filed in the US District Court for the District of Kansas. The original principal balance at issue in the case is approximately USD 1.15 billion. In April 2017, UBS and the NCUA settled this matter. In the second quarter of 2016, UBS resolved a similar case brought by the NCUA in the US District Court for the Southern District of New York (SDNY) relating to RMBS with an original principal balance of approximately USD 400 million, for a total of approximately USD 69.8 million, in addition to reasonable attorneys' fees incurred by the NCUA.

UBS has indemnification rights against surviving third-party issuers or originators for losses or liabilities incurred by UBS in connection with this and other matters. UBS cannot predict the extent to which it will succeed in enforcing those rights.

*Lawsuits related to contractual representations and warranties concerning mortgages and RMBS:* When UBS acted as an RMBS sponsor or mortgage seller, we generally made certain representations relating to the characteristics of the underlying loans. In the event of a material breach of these representations, we were in certain circumstances contractually obligated to repurchase the loans to which the representations related or to indemnify certain parties against losses. UBS has received demands to repurchase US residential mortgage loans as to which UBS made certain representations at the time the loans were transferred to the securitization trust aggregating approximately USD 4.1 billion in original principal balance. Of this amount, UBS considers claims relating to approximately USD 2 billion in original principal balance to be resolved, including claims barred by the statute of limitations. Substantially all of the remaining claims are in litigation, including the matters described in the next paragraph. UBS believes that new demands to repurchase US residential mortgage loans are time-barred under a decision rendered by the New York Court of Appeals.

In 2012, certain RMBS trusts filed an action (Trustee Suit) in the SDNY seeking to enforce UBS RESI's obligation to repurchase loans in the collateral pools for three RMBS securitizations with an original principal balance of approximately USD 2 billion, for which Assured Guaranty Municipal Corp., a financial guaranty insurance company, had previously demanded repurchase. Approximately 9,000 loans were at issue in a bench trial in the SDNY in 2016, following which the court issued an order ruling on numerous legal and factual issues and applying those rulings to 20 exemplar loans. The court further ordered that a lead master be appointed to apply the court's rulings to the loans that remain at issue following the trial. With respect to the loans subject to the Trustee Suit that were originated by institutions still in existence, UBS intends to enforce its indemnity rights against those institutions.

We also have tolling agreements with certain institutional purchasers of RMBS concerning their potential claims related to substantial purchases of UBS-sponsored or third-party RMBS.

*Mortgage-related regulatory matters:* In 2014, UBS received a subpoena from the US Attorney's Office for the Eastern District of New York issued pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), which seeks documents and information related to UBS's RMBS business from 2005 through 2007. In 2015, the Eastern District of New York identified a number of transactions that are the focus of their inquiry, and has subsequently provided a revised list of transactions. We have provided and continue to provide information. UBS continues to respond to the FIRREA subpoena and to subpoenas from the New York State Attorney General and other state attorneys general relating to its RMBS business. In addition, UBS has also been responding to inquiries from both the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) (who is working in conjunction with the US Attorney's Office for Connecticut and the DOJ) and the SEC relating to trading practices in connection with purchases and sales of mortgage-backed securities in the secondary market from 2009 through 2014. We are cooperating with the authorities in these matters.

**Note 13 Provisions and contingent liabilities (continued)**

Our balance sheet at 31 March 2017 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier (CSSF). Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds now face severe losses, and the Luxembourg funds are in liquidation. The last reported net asset value of the two Luxembourg funds before revelation of the Madoff scheme was approximately USD 1.7 billion in the aggregate although that figure likely includes fictitious profit reported by BMIS. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members. UBS Europe SE, Luxembourg branch, and certain other UBS subsidiaries are responding to inquiries by Luxembourg investigating authorities, without, however, being named as parties in those investigations.

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims on behalf of the funds against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees. The amounts claimed are approximately EUR 890 million and EUR 305 million, respectively. The liquidators have filed supplementary claims for amounts that the funds may possibly be held liable to pay the trustee for the liquidation of BMIS (BMIS Trustee). These amounts claimed by the liquidator are approximately EUR 564 million and EUR 370 million, respectively.

In addition, a large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff scheme. The majority of these cases are pending in Luxembourg, where appeals were filed by the claimants against the 2010 decisions of the court in which the claims in a number of test cases were held to be inadmissible. The Luxembourg Court of Appeal has found in favor of UBS and dismissed all of these test case appeals, confirming that the claims are inadmissible. The Luxembourg Supreme Court has also dismissed a further appeal brought by the claimant in one of the test cases.

In the US, the BMIS Trustee filed claims in 2010 against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2 billion. Following a motion by UBS, in 2011, the SDNY dismissed all of the BMIS Trustee's claims other than claims for recovery of fraudulent conveyances and preference payments that were allegedly transferred to UBS on the ground that the BMIS Trustee lacks standing to bring such claims. In 2013, the Second Circuit affirmed the District Court's decision and, in 2014, the US Supreme Court denied the BMIS Trustee's petition seeking review of the Second Circuit ruling. In 2016, the bankruptcy court issued an opinion dismissing the remaining claims for recovery of subsequent transfers of fraudulent conveyances and preference payments on the ground that the US Bankruptcy Code does not apply to transfers that occurred outside the US, and judgment was entered in March 2017. The BMIS Trustee has appealed that ruling. In 2014, several claims, including a purported class action, were filed in the US by BMIS customers against UBS entities, asserting claims similar to the ones made by the BMIS Trustee, seeking unspecified damages. One claim was voluntarily withdrawn by the plaintiff. In 2015, following a motion by UBS, the SDNY dismissed the two remaining claims on the basis that the New York courts did not have jurisdiction to hear the claims against the UBS entities. The plaintiff in one of those claims has appealed the dismissal.

In Germany, certain clients of UBS are exposed to Madoff-managed positions through third-party funds and funds administered by UBS entities in Germany. A small number of claims have been filed with respect to such funds. In 2015, a court of appeal ordered UBS to pay EUR 49 million, plus interest of approximately EUR 15.3 million.

**Note 13 Provisions and contingent liabilities (continued)**

4. Puerto Rico

Declines since August 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (the funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) have led to multiple regulatory inquiries, as well as customer complaints and arbitrations with aggregate claimed damages of approximately USD 2 billion, of which claims with aggregate claimed damages of approximately USD 990 million have been resolved through settlements, arbitration or withdrawal of the claim. The claims are filed by clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and / or who used their UBS account assets as collateral for UBS non-purpose loans; customer complaint and arbitration allegations include fraud, misrepresentation and unsuitability of the funds and of the loans. A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2015, defendants' motion to dismiss was denied. Defendants' requests for permission to appeal that ruling were denied by the Puerto Rico Court of Appeals and the Puerto Rico Supreme Court. In 2014, a federal class action complaint also was filed against various UBS entities, certain members of UBS PR senior management and the co-manager of certain of the funds, seeking damages for investor losses in the funds during the period from May 2008 through May 2014. In 2016, defendants' motion to dismiss was granted in part and denied in part. In 2015, a class action was filed in Puerto Rico state court against UBS PR seeking equitable relief in the form of a stay of any effort by UBS PR to collect on non-purpose loans it acquired from UBS Bank USA in December 2013 based on plaintiffs' allegation that the loans are not valid. The trial court denied defendants' motion to dismiss the action based on a forum selection clause in the loan agreements; the Puerto Rico Supreme Court has stayed the action pending its review of defendants' appeal from that ruling.

In 2014, UBS reached a settlement with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico (OCFI) in connection with OCFI's examination of UBS's operations from January 2006 through September 2013, pursuant to which UBS is paying up to an aggregate of USD 7.7 million in investor education contributions and restitution.

In 2015, the SEC and the Financial Industry Regulatory Authority (FINRA) announced settlements with UBS PR of their separate investigations stemming from the 2013 market events. Without admitting or denying the findings in either matter, UBS PR agreed in the SEC settlement to pay USD 15 million and USD 18.5 million in the FINRA matter. We also understand that the DOJ is conducting a criminal inquiry into the impermissible reinvestment of non-purpose loan proceeds. We are cooperating with the authorities in this inquiry.

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of approximately USD 3 billion of bonds by the System in 2008 and sought damages of over USD 800 million. In December 2016, the court granted the System's request to join the action as a plaintiff, but ordered that plaintiffs must file an amended complaint. In March 2017, the court denied defendants' motion to dismiss the amended complaint.

Also, in 2013, an SEC Administrative Law Judge dismissed a case brought by the SEC against two UBS executives, finding no violations. The charges had stemmed from the SEC's investigation of UBS's sale of closed-end funds in 2008 and 2009, which UBS settled in 2012. Beginning in 2012, two federal class action complaints, which were subsequently consolidated, were filed against various UBS entities, certain of the funds and certain members of UBS PR senior management, seeking damages for investor losses in the funds during the period from January 2008 through May 2012 based on allegations similar to those in the SEC action. In 2016, the court denied plaintiffs' motion for class certification. In March 2017, the US Court of Appeals for the First Circuit denied plaintiffs' petition seeking permission to bring an interlocutory appeal challenging the denial of their motion for class certification.

Beginning in 2015, agencies and public corporations of the Commonwealth of Puerto Rico (Commonwealth) have defaulted on certain interest payments, and in 2016, the Commonwealth defaulted on payments on its general obligation debt. Executive orders of the Governor that have diverted funds to pay for essential services instead of debt payments and stayed any action to enforce creditors' rights on the Puerto Rico bonds continue to be in effect. In 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board is authorized to impose, and has imposed, a stay on exercise of creditors' rights. These events, further defaults, any further legislative action to create a legal means of restructuring Commonwealth obligations or to impose additional oversight on the Commonwealth's finances, or any restructuring of the Commonwealth's obligations may increase the number of claims against UBS concerning Puerto Rico securities, as well as potential damages sought.

**Note 13 Provisions and contingent liabilities (continued)**

Our balance sheet at 31 March 2017 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

### 5. Foreign exchange, LIBOR, and benchmark rates, and other trading practices

*Foreign exchange-related regulatory matters:* Following an initial media report in 2013 of widespread irregularities in the foreign exchange markets, UBS immediately commenced an internal review of its foreign exchange business, which includes our precious metals and related structured products businesses. Since then, various authorities have commenced investigations concerning possible manipulation of foreign exchange markets, including FINMA, the Swiss Competition Commission (WEKO), the DOJ, the SEC, the US Commodity Futures Trading Commission (CFTC), the Board of Governors of the Federal Reserve System (Federal Reserve Board), the California State Attorney General, the UK Financial Conduct Authority (FCA) (to which certain responsibilities of the UK Financial Services Authority (FSA) have passed), the UK Serious Fraud Office (SFO), the Australian Securities and Investments Commission (ASIC), the Hong Kong Monetary Authority (HKMA), the Korea Fair Trade Commission (KFTC) and the Brazil Competition Authority (CADE). In addition, WEKO is, and a number of other authorities reportedly are, investigating potential manipulation of precious metals prices.

In 2014, UBS reached settlements with the FCA and the CFTC in connection with their foreign exchange investigations, and FINMA issued an order concluding its formal proceedings with respect to UBS relating to its foreign exchange and precious metals businesses. In 2015, the Federal Reserve Board and the Connecticut Department of Banking issued an Order to Cease and Desist and Order of Assessment of a Civil Monetary Penalty Issued upon Consent (Federal Reserve Order) to UBS AG.

In 2015, the DOJ's Criminal Division (Criminal Division) terminated the December 2012 Non-Prosecution Agreement (NPA) with UBS AG related to UBS's submissions of benchmark interest rates. As a result, UBS AG entered into a plea agreement with the Criminal Division pursuant to which UBS AG pleaded guilty to a one-count criminal information filed in the US District Court for the District of Connecticut charging UBS AG with one count of wire fraud in violation of 18 USC Sections 1343 and 2. Sentencing occurred in January 2017. Under the plea agreement, UBS AG has paid a USD 203 million fine and is subject to a three-year term of probation starting on the sentencing date. The criminal information charges that, between approximately 2001 and 2010, UBS AG engaged in a scheme to defraud counterparties to interest rate derivatives transactions by manipulating benchmark interest rates, including Yen LIBOR. The Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA in certain foreign exchange market transactions.

We have ongoing obligations to cooperate with these authorities and to undertake certain remediation, including actions to improve UBS's processes and controls.

UBS has been granted conditional leniency or conditional immunity by the Antitrust Division of the DOJ (Antitrust Division) from prosecution for EUR / USD collusion and entered into a non-prosecution agreement covering other currency pairs. As a result, UBS AG will not be subject to prosecutions, fines or other sanctions for antitrust law violations by the Antitrust Division, subject to UBS AG's continuing cooperation. However, the conditional leniency and conditional immunity grant does not bar government agencies from asserting other claims and imposing sanctions against UBS AG. UBS has also been granted conditional immunity by authorities in certain jurisdictions, including WEKO, in connection with potential competition law violations relating to foreign exchange and precious metals businesses and, as a result, will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in those jurisdictions, subject to UBS AG's continuing cooperation as the leniency applicant.

Investigations relating to foreign exchange and precious metals matters by numerous authorities, including the CFTC, remain ongoing notwithstanding these resolutions.

**Note 13 Provisions and contingent liabilities (continued)**

*Foreign exchange-related civil litigation:* Putative class actions have been filed since November 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. They allege collusion by the defendants and assert claims under the antitrust laws and for unjust enrichment. In 2015, additional putative class actions were filed in federal court in New York against UBS and other banks on behalf of a putative class of persons who entered into or held any foreign exchange futures contracts and options on foreign exchange futures contracts since 1 January 2003. The complaints assert claims under the Commodity Exchange Act (CEA) and the US antitrust laws. In 2015, a consolidated complaint was filed on behalf of both putative classes of persons covered by the US federal court class actions described above. UBS has entered into a settlement agreement that would resolve all of these US federal court class actions. The agreement, which has been preliminarily approved by the court and is subject to final court approval, requires, among other things, that UBS pay an aggregate of USD 141 million and provide cooperation to the settlement classes.

A putative class action has been filed in federal court in New York against UBS and other banks on behalf of participants, beneficiaries, and named fiduciaries of plans qualified under the Employee Retirement Income Security Act of 1974 (ERISA) for whom a defendant bank provided foreign currency exchange transactional services, exercised discretionary authority or discretionary control over management of such ERISA plan, or authorized or permitted the execution of any foreign currency exchange transactional services involving such plan's assets. The complaint asserts claims under ERISA. The parties filed a stipulation to dismiss the case with prejudice. The plaintiffs have appealed the dismissal.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of a putative class of persons and businesses in the US who directly purchased foreign currency from the defendants and their co-conspirators for their own end use. That action has been transferred to federal court in New York. In March 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint.

In 2016, a putative class action was filed in federal court in New York against UBS and numerous other banks on behalf of a putative class of persons and entities who had indirectly purchased FX instruments from a defendant or co-conspirator in the US. The complaint asserts claims under federal and state antitrust laws. In response to defendants' motion to dismiss, plaintiffs have sought to amend their complaint.

In 2015, UBS was added to putative class actions pending against other banks in federal court in New York and other jurisdictions on behalf of putative classes of persons who had bought or sold physical precious metals and various precious metal products and derivatives. The complaints in these lawsuits assert claims under the antitrust laws and the CEA, and other claims. In October 2016, the court in New York granted UBS's motions to dismiss the putative class actions relating to gold and silver. Plaintiffs in those cases are seeking to amend their complaints to add new allegations about UBS. In March 2017, the court in New York granted UBS's motion to dismiss the platinum and palladium action.

*LIBOR and other benchmark-related regulatory matters:* Numerous government agencies, including the SEC, the CFTC, the DOJ, the FCA, the SFO, the Monetary Authority of Singapore (MAS), the HKMA, FINMA, the various state attorneys general in the US and competition authorities in various jurisdictions have conducted or are continuing to conduct investigations regarding submissions with respect to LIBOR and other benchmark rates. These investigations focus on whether there were improper attempts by UBS, among others, either acting on our own or together with others, to manipulate LIBOR and other benchmark rates at certain times.

In 2012, UBS reached settlements with the FSA, the CFTC and the Criminal Division of the DOJ in connection with their investigations of benchmark interest rates. At the same time, FINMA issued an order concluding its formal proceedings with respect to UBS relating to benchmark interest rates. UBS has paid a total of approximately CHF 1.4 billion in fines and disgorgement in connection with these resolutions. UBS Securities Japan Co. Ltd. (UBSSJ) entered into a plea agreement with the DOJ under which it entered a plea to one count of wire fraud relating to the manipulation of certain benchmark interest rates, including Yen LIBOR. UBS entered into an NPA with the DOJ, which (along with the plea agreement) covered conduct beyond the scope of the conditional leniency / immunity grants described below. Under the NPA, UBS agreed, among other things, that for two years from 18 December 2012 it would not commit any US crime and would advise the DOJ of any potentially criminal conduct by UBS or any of its employees relating to violations of US laws concerning fraud or securities and commodities markets. The term of the NPA was extended by one year to 18 December 2015. In 2015, the Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA.

In 2014, UBS reached a settlement with the European Commission (EC) regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and paid a EUR 12.7 million fine, which was reduced to this level based in part on UBS's cooperation with the EC. In 2016, UBS reached a settlement with WEKO regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and received full immunity from fines. The MAS, HKMA and the Japan Financial Services Agency have also resolved investigations of UBS (and in some cases, other banks). We have ongoing obligations to cooperate with the authorities with whom we have reached resolutions and to undertake certain remediation with respect to benchmark interest rate submissions.

**Note 13 Provisions and contingent liabilities (continued)**

Investigations by the CFTC, ASIC and other governmental authorities remain ongoing notwithstanding these resolutions.

UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO, in connection with potential antitrust or competition law violations related to submissions for Yen LIBOR and Euroyen TIBOR. As a result of these conditional grants, UBS will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in the jurisdictions where we have conditional immunity in connection with the matters covered by the conditional grants, subject to our continuing cooperation as leniency applicant. However, since the Secretariat of WEKO has asserted that UBS does not qualify for full immunity, UBS has been unable to reach a settlement with WEKO, and therefore the investigation will continue. Furthermore, the conditional leniency and conditional immunity grants we have received do not bar government agencies from asserting other claims and imposing sanctions against us. In addition, as a result of the conditional leniency agreement with the DOJ, we are eligible for a limit on liability to actual rather than treble damages were damages to be awarded in any civil antitrust action under US law based on conduct covered by the agreement and for relief from potential joint and several liability in connection with such civil antitrust action, subject to our satisfying the DOJ and the court presiding over the civil litigation of our cooperation. The conditional leniency and conditional immunity grants do not otherwise affect the ability of private parties to assert civil claims against us.

*LIBOR and other benchmark-related civil litigation:* A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. All of the complaints allege manipulation, through various means, of various benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, USD ISDAFIX rates and other benchmark rates, and seek unspecified compensatory and other damages under varying legal theories.

In 2013, the US district court in the USD LIBOR action dismissed the federal antitrust and racketeering claims of certain USD LIBOR plaintiffs and a portion of their claims brought under the CEA and state common law. Certain plaintiffs appealed the decision to the Second Circuit, which, in 2016, vacated the district court's ruling finding no antitrust injury and remanded the case back to the district court for a further determination on whether plaintiffs have antitrust standing. In 2016, the district court again dismissed plaintiffs' antitrust claims, this time for lack of personal jurisdiction over UBS and other foreign banks. In 2014, the court in one of the Euroyen TIBOR lawsuits dismissed certain of the plaintiff's claims, including federal antitrust claims. In 2015, the same court dismissed plaintiff's federal racketeering claims and affirmed its previous dismissal of plaintiff's antitrust claims. In 2017, the court also dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds. Also in 2017, the court in the EURIBOR lawsuit dismissed the case as to UBS and certain other foreign defendants for lack of personal jurisdiction. UBS and other defendants in other lawsuits including those related to CHF LIBOR, GBP LIBOR and USD and SGD SIBOR and Australian BBSW have filed motions to dismiss. In 2016, UBS entered into an agreement with representatives of a class of bondholders to settle their USD LIBOR class action. The agreement is subject to court approval.

Since September 2014, putative class actions have been filed in federal court in New York and New Jersey against UBS and other financial institutions, among others, on behalf of parties who entered into interest rate derivative transactions linked to ISDAFIX. The complaints, which have since been consolidated into an amended complaint, allege that the defendants conspired to manipulate ISDAFIX rates from 1 January 2006 through June 2013, in violation of US antitrust laws and certain state laws, and seek unspecified compensatory damages, including treble damages. In 2016, the court in the ISDAFIX action denied in substantial part defendants' motion to dismiss, holding that plaintiffs have stated Sherman Act, breach-of-contract and unjust-enrichment claims against defendants, including UBS AG.

*Government bonds:* Putative class actions have been filed in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. The complaints generally allege that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction. They assert claims under the antitrust laws and the CEA and for unjust enrichment. The cases have been consolidated in the SDNY. Following filing of these complaints, UBS and reportedly other banks are responding to investigations and requests for information from various authorities regarding US Treasury securities and other government bond trading practices. As a result of its review to date, UBS has taken appropriate action.

With respect to additional matters and jurisdictions not encompassed by the settlements and order referred to above, our balance sheet at 31 March 2017 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

## Note 13 Provisions and contingent liabilities (continued)

### 6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver.

FINMA has issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and may continue to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among others, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

Our balance sheet at 31 March 2017 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 7. Banco UBS Pactual tax indemnity

Pursuant to the 2009 sale of Banco UBS Pactual S.A. (Pactual) by UBS to BTG Investments, LP (BTG), BTG has submitted contractual indemnification claims that UBS estimates amount to approximately BRL 2.7 billion, including interest and penalties, which is net of liabilities retained by BTG. The claims pertain principally to several tax assessments issued by the Brazilian tax authorities against Pactual relating to the period from December 2006 through March 2009, when UBS owned Pactual. These assessments are being challenged in administrative and judicial proceedings. The majority of these assessments relate to the deductibility of goodwill amortization in connection with UBS's 2006 acquisition of Pactual and payments made to Pactual employees through various profit-sharing plans. In 2015, an intermediate administrative court issued a decision that was largely in favor of the tax authority with respect to the goodwill amortization assessment. In 2016, the highest level of the administrative court agreed to review this decision on a number of the significant issues.

### 8. Investigation of UBS's role in initial public offerings in Hong Kong

The Hong Kong Securities and Futures Commission (SFC) has been conducting investigations into UBS's role as a sponsor of certain initial public offerings listed on the Hong Kong Stock Exchange. In 2016, the SFC informed UBS that it intends to commence action against UBS and certain UBS employees with respect to sponsorship work in those offerings, which could result in financial ramifications for UBS, including fines and obligations to pay investor compensation, and suspension of UBS's ability to provide corporate finance advisory services in Hong Kong for a period of time. In January 2017, a writ was filed by the SFC with Hong Kong's High Court in which UBS is named as one of six defendants from whom the SFC is seeking compensation in an unspecified amount for losses incurred by certain shareholders of China Forestry Holdings Company Limited, for whom UBS acted as a sponsor in connection with their 2009 listing application.

## Note 14 Guarantees, commitments and forward starting transactions

The table below shows the maximum irrevocable amount of guarantees, commitments and forward starting transactions.

| | 31.3.17 | | | 31.12.16 | | |
|---|---|---|---|---|---|---|
| *CHF million* | Gross | Sub-participations | Net | Gross | Sub-participations | Net |
| **Guarantees** | | | | | | |
| Credit guarantees and similar instruments | 6,595 | (427) | 6,168 | 6,447 | (424) | 6,023 |
| Performance guarantees and similar instruments | 3,117 | (674) | 2,443 | 3,190 | (696) | 2,494 |
| Documentary credits | 7,130 | (1,672) | 5,458 | 7,074 | (1,761) | 5,313 |
| **Total guarantees** | 16,842 | (2,773) | 14,069 | 16,711 | (2,881) | 13,830 |
| **Loan commitments** | 46,063 | (1,460) | 44,603 | 54,430 | (1,513) | 52,917 |
| **Forward starting transactions**[1] | | | | | | |
| Reverse repurchase agreements | 25,136 | | | 10,178 | | |
| Securities borrowing agreements | 55 | | | 36 | | |
| Repurchase agreements | 18,124 | | | 5,984 | | |

1 Cash to be paid in the future by either UBS or the counterparty.

## Note 15 Changes in organization and disposals

### Restructuring expenses

Restructuring expenses arise from programs that materially change either the scope of business that UBS AG engages in or the manner in which such business is conducted. Restructuring expenses are necessary to effect such programs and include items such as severance and other personnel-related expenses, duplicate headcount costs, impairment and accelerated depreciation of assets, contract termination costs, consulting fees, and related infrastructure and system costs. These costs are presented in the income statement according to the underlying nature of the expense.

**Net restructuring expenses by business division and Corporate Center unit**

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Wealth Management | 88 | 143 | 79 | (38) | 11 |
| Wealth Management Americas | 22 | 31 | 33 | (29) | (33) |
| Personal & Corporate Banking | 19 | 21 | 23 | (10) | (17) |
| Asset Management | 20 | 12 | 20 | 67 | 0 |
| Investment Bank | 78 | 116 | 117 | (33) | (33) |
| Corporate Center | 13 | 46 | (8) | (72) | |
| *of which: Services* | *10* | *38* | *(9)* | *(74)* | |
| *of which: Non-core and Legacy Portfolio* | *2* | *8* | *2* | *(75)* | *0* |
| Total net restructuring expenses | 240 | 370 | 263 | (35) | (9) |
| *of which: personnel expenses* | *113* | *169* | *126* | *(33)* | *(10)* |
| *of which: general and administrative expenses* | *124* | *191* | *136* | *(35)* | *(9)* |
| *of which: depreciation and impairment of property, equipment and software* | *4* | *10* | *1* | *(60)* | *300* |
| *of which: amortization and impairment of intangible assets* | *0* | *0* | *0* | | |

**Net restructuring expenses by personnel expense category**

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Salaries and variable compensation | 100 | 174 | 114 | (43) | (12) |
| Contractors | 13 | 15 | 11 | (13) | 18 |
| Social security | 2 | 2 | 2 | 0 | 0 |
| Pension and other post-employment benefit plans | (4) | (24) | (4) | (83) | 0 |
| Other personnel expenses | 2 | 2 | 4 | 0 | (50) |
| Total net restructuring expenses: personnel expenses | 113 | 169 | 126 | (33) | (10) |

**Net restructuring expenses by general and administrative expense category**

| | For the quarter ended | | | % change from | |
|---|---|---|---|---|---|
| *CHF million* | 31.3.17 | 31.12.16 | 31.3.16 | 4Q16 | 1Q16 |
| Occupancy | 19 | 26 | 29 | (27) | (34) |
| Rent and maintenance of IT and other equipment | 29 | 22 | 10 | 32 | 190 |
| Administration | 5 | 11 | 3 | (55) | 67 |
| Travel and entertainment | 2 | 4 | 2 | (50) | 0 |
| Professional fees | 26 | 53 | 34 | (51) | (24) |
| Outsourcing of IT and other services | 43 | 59 | 74 | (27) | (42) |
| Other[1] | 0 | 17 | (17) | (100) | (100) |
| Total net restructuring expenses: general and administrative expenses | 124 | 191 | 136 | (35) | (9) |

1 Mainly comprised of onerous real estate lease contracts.

## Note 15 Changes in organization and disposals (continued)

### Disposal group held for sale

In 2016, UBS AG agreed to sell a life insurance subsidiary within Wealth Management. This sale is currently expected to close in the second quarter of 2017, subject to customary closing conditions. As of 31 March 2017, the assets and liabilities of this business are presented as a disposal group held for sale within *Other assets* and *Other liabilities* and amounted to CHF 5,074 million and CHF 5,052 million, respectively (31 December 2016: CHF 5,137 million and CHF 5,213 million, respectively).

## Note 16 Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of UBS AG's foreign operations into Swiss francs.

| | Spot rate | | | Average rate[1] | | |
|---|---|---|---|---|---|---|
| | As of | | | For the quarter ended | | |
| | 31.3.17 | 31.12.16 | 31.3.16 | 31.3.17 | 31.12.16 | 31.3.16 |
| 1 USD | 1.00 | 1.02 | 0.96 | 1.00 | 1.01 | 0.99 |
| 1 EUR | 1.07 | 1.07 | 1.09 | 1.07 | 1.08 | 1.10 |
| 1 GBP | 1.25 | 1.26 | 1.38 | 1.25 | 1.25 | 1.42 |
| 100 JPY | 0.90 | 0.87 | 0.85 | 0.89 | 0.90 | 0.86 |

1 Monthly income statement items of foreign operations with a functional currency other than Swiss franc are translated with month-end rates into Swiss francs. Disclosed average rates for a quarter represent an average of three month-end rates, weighted according to the income and expense volumes of all foreign operations with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for UBS AG.

## Appendix 6 – Excerpts from the UBS Group Second Quarter 2017 Report

It should be noted that the term "pro-forma" as used in this Appendix 6 does not refer to the term "pro forma financial information" within the meaning of Regulation (EC) 809/2004.

# UBS Group AG interim consolidated financial statements (unaudited)

## Income statement

| | | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|---|
| *CHF million, except per share data* | Note | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| Interest income | | 3,627 | 3,352 | 3,552 | 8 | 2 | 6,979 | 6,959 |
| Interest expense | | (2,210) | (1,656) | (2,388) | 33 | (7) | (3,866) | (4,083) |
| Net interest income | | 1,417 | 1,696 | 1,164 | (16) | 22 | 3,113 | 2,876 |
| Credit loss (expense) / recovery | | (46) | 0 | (7) | | 557 | (46) | (9) |
| Net interest income after credit loss expense | | 1,371 | 1,696 | 1,158 | (19) | 18 | 3,067 | 2,867 |
| Net fee and commission income | 3 | 4,295 | 4,353 | 4,087 | (1) | 5 | 8,648 | 8,180 |
| Net trading income | | 1,456 | 1,440 | 1,891 | 1 | (23) | 2,896 | 2,904 |
| Other income | 4 | 147 | 43 | 269 | 242 | (45) | 190 | 286 |
| Total operating income | | 7,269 | 7,532 | 7,404 | (3) | (2) | 14,801 | 14,237 |
| Personnel expenses | 5 | 4,014 | 4,060 | 3,985 | (1) | 1 | 8,074 | 7,910 |
| General and administrative expenses | 6 | 1,488 | 1,506 | 1,666 | (1) | (11) | 2,994 | 3,330 |
| Depreciation and impairment of property, equipment and software | | 249 | 255 | 240 | (2) | 4 | 505 | 483 |
| Amortization and impairment of intangible assets | | 16 | 21 | 24 | (24) | (33) | 37 | 47 |
| Total operating expenses | | 5,767 | 5,842 | 5,915 | (1) | (3) | 11,609 | 11,770 |
| Operating profit / (loss) before tax | | 1,502 | 1,690 | 1,489 | (11) | 1 | 3,192 | 2,467 |
| Tax expense / (benefit) | 7 | 327 | 375 | 376 | (13) | (13) | 701 | 646 |
| Net profit / (loss) | | 1,175 | 1,315 | 1,113 | (11) | 6 | 2,490 | 1,820 |
| Net profit / (loss) attributable to non-controlling interests | | 1 | 47 | 79 | (98) | (99) | 47 | 79 |
| **Net profit / (loss) attributable to shareholders** | | 1,174 | 1,269 | 1,034 | (7) | 14 | 2,443 | 1,741 |

**Earnings per share (CHF)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Basic | 8 | 0.32 | 0.34 | 0.28 | (6) | 14 | 0.66 | 0.47 |
| Diluted | 8 | 0.31 | 0.33 | 0.27 | (6) | 15 | 0.64 | 0.45 |

## Statement of comprehensive income

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| **Comprehensive income attributable to shareholders** | | | | | |
| Net profit / (loss) | 1,174 | 1,269 | 1,034 | 2,443 | 1,741 |
| **Other comprehensive income that may be reclassified to the income statement** | | | | | |
| **Foreign currency translation** | | | | | |
| Foreign currency translation movements, before tax | (994) | (371) | 310 | (1,365) | (643) |
| Foreign exchange amounts reclassified to the income statement from equity | 21 | 4 | 26 | 25 | 149 |
| Income tax relating to foreign currency translation movements | 1 | 2 | (2) | 3 | 3 |
| Subtotal foreign currency translation, net of tax | (971) | (365) | 334 | (1,337) | (492) |
| **Financial assets available for sale** | | | | | |
| Net unrealized gains / (losses) on financial assets available for sale, before tax | 10 | 44 | 116 | 53 | 369 |
| Impairment charges reclassified to the income statement from equity | (1) | 14 | 3 | 13 | 3 |
| Realized gains reclassified to the income statement from equity | (135) | (8) | (166) | (143) | (255) |
| Realized losses reclassified to the income statement from equity | 5 | 2 | 5 | 7 | 19 |
| Income tax relating to net unrealized gains / (losses) on financial assets available for sale | 6 | (8) | 3 | (2) | (44) |
| Subtotal financial assets available for sale, net of tax | (115) | 43 | (39) | (72) | 93 |
| **Cash flow hedges** | | | | | |
| Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax | 165 | (30) | 502 | 136 | 1,445 |
| Net (gains) / losses reclassified to the income statement from equity | (211) | (220) | (274) | (431) | (577) |
| Income tax relating to cash flow hedges | 11 | 52 | (47) | 63 | (174) |
| Subtotal cash flow hedges, net of tax | (35) | (198) | 181 | (233) | 694 |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | (1,121) | (520) | 476 | (1,641) | 295 |
| **Other comprehensive income that will not be reclassified to the income statement** | | | | | |
| **Defined benefit plans** | | | | | |
| Gains / (losses) on defined benefit plans, before tax | 107 | 49 | (198) | 156 | (389) |
| Income tax relating to defined benefit plans | 1 | 2 | (4) | 4 | 8 |
| Subtotal defined benefit plans, net of tax | 108 | 51 | (202) | 160 | (381) |
| **Own credit on financial liabilities designated at fair value** | | | | | |
| Gains / (losses) from own credit on financial liabilities designated at fair value, before tax | (72) | (181) | (173) | (252) | (105) |
| Income tax relating to own credit on financial liabilities designated at fair value | (1) | 0 | 16 | (1) | 0 |
| Subtotal own credit on financial liabilities designated at fair value, net of tax | (73) | (181) | (157) | (254) | (105) |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | 35 | (129) | (359) | (94) | (486) |
| **Total other comprehensive income** | (1,086) | (649) | 117 | (1,735) | (191) |
| **Total comprehensive income attributable to shareholders** | 89 | 620 | 1,151 | 708 | 1,550 |

## Statement of comprehensive income (continued)

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| **Comprehensive income attributable to non-controlling interests** | | | | | |
| Net profit / (loss) | 1 | 47 | 79 | 47 | 79 |
| Other comprehensive income that will not be reclassified to the income statement | | | | | |
| Foreign currency translation movements, before tax | 14 | 0 | 329 | 14 | 278 |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | 14 | 0 | 329 | 14 | 278 |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 14 | 0 | 329 | 14 | 278 |
| Total comprehensive income attributable to non-controlling interests | 14 | 47 | 407 | 61 | 357 |
| **Total comprehensive income** | | | | | |
| Net profit / (loss) | 1,175 | 1,315 | 1,113 | 2,490 | 1,820 |
| Other comprehensive income | (1,072) | (649) | 445 | (1,721) | 87 |
| *of which: other comprehensive income that may be reclassified to the income statement* | *(1,121)* | *(520)* | *476* | *(1,641)* | *295* |
| *of which: other comprehensive income that will not be reclassified to the income statement* | *49* | *(129)* | *(30)* | *(80)* | *(207)* |
| Total comprehensive income | 103 | 666 | 1,558 | 769 | 1,907 |

## Balance sheet

| | | | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.6.17 | 31.3.17 | 31.12.16 | 31.3.17 | 31.12.16 |
| **Assets** | | | | | | |
| Cash and balances with central banks | | 100,071 | 108,931 | 107,767 | (8) | (7) |
| Due from banks | | 14,420 | 14,222 | 13,156 | 1 | 10 |
| Cash collateral on securities borrowed | | 15,081 | 18,512 | 15,111 | (19) | 0 |
| Reverse repurchase agreements | | 75,324 | 77,004 | 66,246 | (2) | 14 |
| Trading portfolio assets | 9 | 107,659 | 107,211 | 96,575 | 0 | 11 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | | *32,679* | *30,346* | *30,260* | *8* | *8* |
| Positive replacement values | 9, 10 | 121,910 | 121,549 | 158,411 | 0 | (23) |
| Cash collateral receivables on derivative instruments | 10 | 22,687 | 22,522 | 26,664 | 1 | (15) |
| Loans | | 308,280 | 309,115 | 306,325 | 0 | 1 |
| Financial assets designated at fair value | 9 | 51,787 | 49,114 | 65,353 | 5 | (21) |
| Financial assets available for sale | 9 | 14,114 | 16,235 | 15,676 | (13) | (10) |
| Financial assets held to maturity | | 8,710 | 8,962 | 9,289 | (3) | (6) |
| Investments in associates | | 972 | 977 | 963 | (1) | 1 |
| Property, equipment and software | | 8,424 | 8,368 | 8,331 | 1 | 1 |
| Goodwill and intangible assets | | 6,226 | 6,458 | 6,556 | (4) | (5) |
| Deferred tax assets | | 12,372 | 12,927 | 13,155 | (4) | (6) |
| Other assets | 11 | 22,793 | 27,500 | 25,436 | (17) | (10) |
| **Total assets** | | 890,831 | 909,608 | 935,016 | (2) | (5) |

## Balance sheet (continued)

| | | | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.6.17 | 31.3.17 | 31.12.16 | 31.3.17 | 31.12.16 |
| **Liabilities** | | | | | | |
| Due to banks | | 11,598 | 8,747 | 10,645 | 33 | 9 |
| Cash collateral on securities lent | | 2,538 | 3,067 | 2,818 | (17) | (10) |
| Repurchase agreements | | 11,286 | 10,621 | 6,612 | 6 | 71 |
| Trading portfolio liabilities | 9 | 25,320 | 28,576 | 22,824 | (11) | 11 |
| Negative replacement values | 9, 10 | 119,027 | 119,964 | 153,810 | (1) | (23) |
| Cash collateral payables on derivative instruments | 10 | 31,520 | 29,875 | 35,472 | 6 | (11) |
| Due to customers | | 404,303 | 419,356 | 423,672 | (4) | (5) |
| Financial liabilities designated at fair value | 9, 12 | 54,215 | 56,640 | 55,017 | (4) | (1) |
| Debt issued | 13 | 121,727 | 114,725 | 103,649 | 6 | 17 |
| Provisions | 14 | 3,207 | 3,757 | 4,174 | (15) | (23) |
| Other liabilities | 11 | 53,653 | 59,939 | 62,020 | (10) | (13) |
| **Total liabilities** | | 838,394 | 855,268 | 880,714 | (2) | (5) |
| **Equity** | | | | | | |
| Share capital | | 385 | 385 | 385 | 0 | 0 |
| Share premium | | 25,600 | 27,637 | 28,254 | (7) | (9) |
| Treasury shares | | (2,180) | (2,211) | (2,249) | (1) | (3) |
| Retained earnings | | 34,074 | 32,864 | 31,725 | 4 | 7 |
| Other comprehensive income recognized directly in equity, net of tax | | (6,135) | (5,014) | (4,494) | 22 | 37 |
| **Equity attributable to shareholders** | | 51,744 | 53,661 | 53,621 | (4) | (4) |
| Equity attributable to non-controlling interests | | 693 | 679 | 682 | 2 | 2 |
| **Total equity** | | 52,437 | 54,340 | 54,302 | (4) | (3) |
| **Total liabilities and equity** | | 890,831 | 909,608 | 935,016 | (2) | (5) |

## Statement of changes in equity

| *CHF million* | Share capital | Share premium | Treasury shares | Retained earnings |
|---|---|---|---|---|
| **Balance as of 1 January 2016** | **385** | **31,164** | **(1,693)** | **29,504** |
| Issuance of share capital | 0 | | | |
| Acquisition of treasury shares | | | (1,350) | |
| Delivery of treasury shares under share-based compensation plans | | (617) | 694 | |
| Other disposal of treasury shares | | (2) | 16 | |
| Premium on shares issued and warrants exercised | | 2 | | |
| Share-based compensation expensed in the income statement | | 424 | | |
| Tax (expense) / benefit | | 10 | | |
| Dividends | | (3,164)[2] | | |
| Preferred notes | | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | 43 | | (43) |
| Total comprehensive income for the period | | | | 1,255 |
| *of which: net profit / (loss)* | | | | *1,741* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *(381)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | | *(105)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| **Balance as of 30 June 2016** | **385** | **27,860** | **(2,333)** | **30,716** |
| | | | | |
| **Balance as of 1 January 2017** | 385 | 28,254 | (2,249) | 31,725 |
| Issuance of share capital | 0 | | | |
| Acquisition of treasury shares | | | (851) | |
| Delivery of treasury shares under share-based compensation plans | | (808) | 883 | |
| Other disposal of treasury shares | | | 38 | |
| Premium on shares issued and warrants exercised | | 8 | | |
| Share-based compensation expensed in the income statement | | 361 | | |
| Tax (expense) / benefit | | 14 | | |
| Dividends | | (2,229)[2] | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (1) | | |
| Total comprehensive income for the period | | | | 2,349 |
| *of which: net profit / (loss)* | | | | *2,443* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *160* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | | *(254)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| **Balance as of 30 June 2017** | 385 | 25,600 | (2,180) | 34,074 |

1 Excludes defined benefit plans and own credit that are recorded directly in Retained earnings. 2 Reflects the payment of an ordinary cash dividend of CHF 0.60 (2016: CHF 0.60 ordinary cash dividend and CHF 0.25 special cash dividend) per dividend-bearing share out of the capital contribution reserve.

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: foreign currency translation* | *of which: financial assets available for sale* | *of which: cash flow hedges* | Total equity attributable to shareholders | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|
| (4,047) | *(5,857)* | *172* | *1,638* | 55,313 | 1,995 | 57,308 |
| | | | | 0 | | 0 |
| | | | | (1,350) | | (1,350) |
| | | | | 77 | | 77 |
| | | | | 14 | | 14 |
| | | | | 2 | | 2 |
| | | | | 424 | | 424 |
| | | | | 10 | | 10 |
| | | | | (3,164) | (83) | (3,246) |
| | | | | 0 | (1,584) | (1,584) |
| | | | | 0 | 0 | 0 |
| 295 | *(492)* | *93* | *694* | 1,550 | 357 | 1,907 |
| | | | | *1,741* | *79* | *1,820* |
| *295* | *(492)* | *93* | *694* | *295* | | *295* |
| | | | | *(381)* | | *(381)* |
| | | | | *(105)* | | *(105)* |
| | | | | *0* | *278* | *278* |
| (3,752) | *(6,348)* | *264* | *2,332* | 52,876 | 686 | 53,562 |
| | | | | | | |
| (4,494) | *(5,564)* | *98* | *972* | 53,621 | 682 | 54,302 |
| | | | | 0 | | 0 |
| | | | | (851) | | (851) |
| | | | | 76 | | 76 |
| | | | | 38 | | 38 |
| | | | | 8 | | 8 |
| | | | | 361 | | 361 |
| | | | | 14 | | 14 |
| | | | | (2,229) | (50) | (2,280) |
| | | | | (1) | 1 | 0 |
| (1,641) | *(1,337)* | *(72)* | *(233)* | 708 | 61 | 769 |
| | | | | *2,443* | *47* | *2,490* |
| *(1,641)* | *(1,337)* | *(72)* | *(233)* | *(1,641)* | | *(1,641)* |
| | | | | *160* | | *160* |
| | | | | *(254)* | | *(254)* |
| | | | | *0* | *14* | *14* |
| (6,135) | *(6,901)* | *26* | *739* | 51,744 | 693 | 52,437 |

## Statement of cash flows

| | Year-to-date | |
|---|---|---|
| *CHF million* | 30.6.17 | 30.6.16 |
| **Cash flow from / (used in) operating activities** | | |
| Net profit / (loss) | 2,490 | 1,820 |
| **Non-cash items included in net profit and other adjustments:** | | |
| Depreciation and impairment of property, equipment and software | 505 | 483 |
| Amortization and impairment of intangible assets | 37 | 47 |
| Credit loss expense / (recovery) | 46 | 9 |
| Share of net profits of associates | (36) | (40) |
| Deferred tax expense / (benefit) | 264 | 242 |
| Net loss / (gain) from investing activities | 246 | (798) |
| Net loss / (gain) from financing activities | (307) | 6,781 |
| Other net adjustments | 689 | (544) |
| **Net change in operating assets and liabilities:** | | |
| Due from / to banks | 484 | 3,320 |
| Cash collateral on securities borrowed and reverse repurchase agreements | (11,218) | (13,109) |
| Cash collateral on securities lent and repurchase agreements | 4,650 | (1,832) |
| Trading portfolio and replacement values | (7,411) | 14,850 |
| Financial assets designated at fair value | 13,112 | (59,480) |
| Cash collateral on derivative instruments | 15 | (6,824) |
| Loans | (6,493) | 1,360 |
| Due to customers | (13,414) | 21,506 |
| Other assets, provisions and other liabilities | (5,678) | (6,085) |
| Income taxes paid, net of refunds | (689) | (209) |
| **Net cash flow from / (used in) operating activities** | (22,708) | (38,503) |
| **Cash flow from / (used in) investing activities** | | |
| Purchase of subsidiaries, associates and intangible assets | (5) | (23) |
| Disposal of subsidiaries, associates and intangible assets[1] | 95 | 72 |
| Purchase of property, equipment and software | (720) | (952) |
| Disposal of property, equipment and software | 23 | 193 |
| Purchase of financial assets available for sale | (4,729) | (7,363) |
| Disposal and redemption of financial assets available for sale | 6,150 | 51,112 |
| Net (purchase) / redemption of financial assets held to maturity | 168 | (4,878) |
| **Net cash flow from / (used in) investing activities** | 982 | 38,159 |

Table continues on the next page.

## Statement of cash flows (continued)

Table continued from previous page.

| | Year-to-date | |
|---|---|---|
| *CHF million* | 30.6.17 | 30.6.16 |
| **Cash flow from / (used in) financing activities** | | |
| Net short-term debt issued / (repaid) | 18,738 | 9,797 |
| Net movements in treasury shares and own equity derivative activity | (751) | (1,274) |
| Distributions paid on UBS shares | (2,229) | (3,164) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 24,829 | 18,857 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (23,407) | (17,365) |
| Net changes in non-controlling interests and preferred notes | (50) | (1,371) |
| **Net cash flow from / (used in) financing activities** | 17,130 | 5,480 |
| **Total cash flow** | | |
| **Cash and cash equivalents at the beginning of the period** | 121,138 | 103,044 |
| Net cash flow from / (used in) operating, investing and financing activities | (4,596) | 5,136 |
| Effects of exchange rate differences on cash and cash equivalents | (1,502) | (1,293) |
| **Cash and cash equivalents at the end of the period[2]** | 115,040 | 106,888 |
| *of which: cash and balances with central banks* | *100,006* | *94,181* |
| *of which: due from banks* | *12,676* | *11,707* |
| *of which: money market paper[3]* | *2,358* | *1,001* |
| **Additional information** | | |
| Net cash flow from / (used in) operating activities includes: | | |
| Interest received in cash | 6,009 | 5,992 |
| Interest paid in cash | 3,522 | 3,417 |
| Dividends on equity investments, investment funds and associates received in cash[4] | 985 | 999 |

1 Includes dividends received from associates. 2 CHF 2,576 million and CHF 3,631 million of cash and cash equivalents (mainly reflected in Due from banks) were restricted as of 30 June 2017 and 30 June 2016, respectively. Refer to Note 23 in the Annual Report 2016 for more information. 3 Money market paper is included in the balance sheet under Trading portfolio assets, Financial assets available for sale and Financial assets designated at fair value. 4 Includes dividends received from associates reported within cash flow from / (used in) investing activities.

# Notes to the UBS Group AG interim consolidated financial statements (unaudited)

## Note 1 Basis of accounting

The consolidated financial statements (the Financial Statements) of UBS Group AG and its subsidiaries (together "UBS" or "the Group") are prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), and are presented in Swiss francs (CHF), which is also the functional currency of UBS Group AG and of UBS AG's Head Office and its Swiss-based operations. These interim Financial Statements are prepared in accordance with IAS 34, *Interim Financial Reporting*.

In preparing these interim Financial Statements, the same accounting policies and methods of computation have been applied as in the UBS Group AG consolidated annual Financial Statements for the period ended 31 December 2016, except for the changes described below and in "Note 1 Basis of accounting" in the "Consolidated financial statements" section of the first quarter 2017 report. These interim Financial Statements are unaudited and should be read in conjunction with UBS Group AG's audited consolidated Financial Statements included in the Annual Report 2016. In the opinion of management, all necessary adjustments were made for a fair presentation of UBS's financial position, results of operations and cash flows.

Preparation of these interim Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities. These estimates and assumptions are based on the best available information. Actual results in the future could differ from such estimates, and such differences may be material to the Financial Statements. Revisions to estimates, based on regular reviews, are recognized in the period in which they occur. For more information on areas of estimation uncertainty considered to require critical judgment, refer to "Note 1a Significant accounting policies" in the "Consolidated financial statements" section of the Annual Report 2016.

### Classification of financial assets containing prepayment features with negative compensation under IFRS 9, *Financial Instruments*

In April 2017, the International Accounting Standards Board (IASB) issued the Exposure Draft *Prepayment Features with Negative Compensation,* which proposed an amendment to IFRS 9, *Financial Instruments* that would allow amortized cost accounting for instruments that provide for two-way compensation if a prepayment occurs. These features are common in Swiss private mortgages and corporate loans.

In July 2017, the IASB approved the amendment, subject to some refinements. UBS expects to early adopt the amendment and continue measuring Swiss private mortgages and corporate loans at amortized cost upon adoption of IFRS 9 on 1 January 2018.

### IFRIC 23, *Uncertainty over Income Tax Treatments*

In June 2017, the IASB issued IFRIC Interpretation 23, *Uncertainty over Income Tax Treatments* (IFRIC 23), which addresses how uncertain tax positions should be accounted for under IFRS. Under this interpretation, IFRIC 23 requires that, where acceptance of the tax treatment by the relevant tax authority is considered probable, it should be assumed as an accounting recognition matter that treatment of the item will ultimately be accepted. Therefore, no tax provision would be required in such cases. However, if acceptance of the tax treatment is not considered probable, the entity is required to reflect that uncertainty using an expected value (i.e., a probability-weighted approach) or the single most likely amount.

IFRIC 23 is mandatorily effective for accounting periods beginning on or after 1 January 2019 and any resulting change to the tax provisions should be recognized in retained earnings. UBS is in the process of carrying out a detailed review on the impacts arising from this interpretation, although it is not expected to have a significant effect on the Group's financial statements.

## Note 2 Segment reporting

UBS's businesses are organized globally into five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank, all of which are supported by Corporate Center. The five business divisions qualify as reportable segments for the purpose of segment reporting and, together with Corporate Center and its units, reflect the management structure of the Group. Corporate Center – Non-core and Legacy Portfolio is managed and reported as a separate reportable segment within Corporate Center. Refer to "Note 1a item 2 Segment reporting" and "Note 2 Segment reporting" in the "Consolidated financial statements" section of the Annual Report 2016 for more information on the Group's reporting segments.

| | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center | | | UBS |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | | | | | | Services | Group ALM | Non-core and Legacy Portfolio | |
| **For the six months ended 30 June 2017** | | | | | | | | | |
| Net interest income | 1,000 | 764 | 940 | (15) | 452 | (153) | 115 | 10 | 3,113 |
| Non-interest income | 2,682 | 3,304 | 870 | 935 | 3,859 | 55 | (5) | 34 | 11,734 |
| Allocations from Group ALM | 129 | 61 | 103 | 9 | (174) | 60 | (139) | (50) | 0 |
| Income | 3,811 | 4,129 | 1,914 | 929 | 4,137 | (37) | (30) | (6) | 14,847 |
| Credit loss (expense) / recovery | (1) | (1) | (21) | 0 | (12) | 0 | 0 | (11) | (46) |
| Total operating income | 3,810 | 4,128 | 1,893 | 929 | 4,124 | (37) | (30) | (16) | 14,801 |
| Personnel expenses | 1,194 | 2,565 | 437 | 357 | 1,591 | 1,888 | 17 | 25 | 8,074 |
| General and administrative expenses | 257 | 321 | 134 | 109 | 256 | 1,920 | 7 | (12) | 2,994 |
| Services (to) / from CC and other BDs | 1,136 | 622 | 542 | 247 | 1,335 | (3,984) | (13) | 116 | 0 |
| *of which: services from CC – Services* | *1,091* | *612* | *587* | *266* | *1,287* | *(4,006)* | *65* | *97* | *0* |
| Depreciation and impairment of property, equipment and software | 1 | 1 | 6 | 1 | 5 | 491 | 0 | 0 | 505 |
| Amortization and impairment of intangible assets | 2 | 20 | 0 | 2 | 6 | 6 | 0 | 0 | 37 |
| Total operating expenses[1] | 2,590 | 3,529 | 1,119 | 716 | 3,194 | 321 | 12 | 129 | 11,609 |
| **Operating profit / (loss) before tax** | **1,221** | **599** | **774** | **213** | **931** | **(358)** | **(41)** | **(146)** | **3,192** |
| Tax expense / (benefit) | | | | | | | | | 701 |
| **Net profit / (loss)** | | | | | | | | | **2,490** |
| **As of 30 June 2017** | | | | | | | | | |
| **Total assets** | **114,087** | **63,491** | **137,353** | **12,700** | **232,861** | **23,202** | **253,103** | **54,035** | **890,831** |
| **For the six months ended 30 June 2016[2]** | | | | | | | | | |
| Net interest income | 954 | 652 | 957 | (17) | 140 | (161) | 360 | (8) | 2,876 |
| Non-interest income | 2,541 | 3,074 | 908 | 963 | 3,860 | 147 | (146) | 20 | 11,370 |
| Allocations from Group ALM | 207 | 44 | 180 | 5 | (116) | 36 | (319) | (37) | 0 |
| Income | 3,702 | 3,771 | 2,046 | 951 | 3,883 | 23 | (104) | (26) | 14,246 |
| Credit loss (expense) / recovery | (1) | (2) | 2 | 0 | (5) | 0 | 0 | (3) | (9) |
| Total operating income | 3,700 | 3,769 | 2,048 | 951 | 3,879 | 23 | (104) | (29) | 14,237 |
| Personnel expenses | 1,205 | 2,398 | 425 | 367 | 1,555 | 1,916 | 15 | 28 | 7,910 |
| General and administrative expenses | 268 | 277 | 121 | 115 | 362 | 2,058 | 8 | 121 | 3,330 |
| Services (to) / from CC and other BDs | 1,148 | 618 | 561 | 262 | 1,405 | (4,106) | (24) | 134 | 0 |
| *of which: services from CC – Services* | *1,107* | *611* | *609* | *275* | *1,352* | *(4,119)* | *55* | *110* | *0* |
| Depreciation and impairment of property, equipment and software | 1 | 1 | 8 | 1 | 13 | 460 | 0 | 0 | 483 |
| Amortization and impairment of intangible assets | 2 | 26 | 0 | 2 | 6 | 11 | 0 | 0 | 47 |
| Total operating expenses[1] | 2,624 | 3,320 | 1,115 | 747 | 3,342 | 338 | 0 | 283 | 11,770 |
| **Operating profit / (loss) before tax** | **1,076** | **448** | **933** | **204** | **537** | **(315)** | **(104)** | **(312)** | **2,467** |
| Tax expense / (benefit) | | | | | | | | | 646 |
| **Net profit / (loss)** | | | | | | | | | **1,820** |
| **As of 31 December 2016** | | | | | | | | | |
| **Total assets** | **115,539** | **65,882** | **139,912** | **12,028** | **242,302** | **23,669** | **267,200** | **68,485** | **935,016** |

1 Refer to Note 16 for information on restructuring expenses. 2 Figures in this table may differ from those originally published in quarterly and annual reports due to adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.

## Note 3 Net fee and commission income

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| Underwriting fees | 357 | 359 | 282 | (1) | 27 | 716 | 503 |
| *of which: equity underwriting fees* | *224* | *238* | *137* | *(6)* | *64* | *462* | *250* |
| *of which: debt underwriting fees* | *133* | *121* | *145* | *10* | *(8)* | *255* | *252* |
| M&A and corporate finance fees | 170 | 177 | 176 | (4) | (3) | 347 | 315 |
| Brokerage fees | 862 | 942 | 879 | (8) | (2) | 1,803 | 1,846 |
| Investment fund fees | 795 | 814 | 779 | (2) | 2 | 1,609 | 1,593 |
| Portfolio management and advisory fees | 2,107 | 2,038 | 1,968 | 3 | 7 | 4,145 | 3,934 |
| Other | 454 | 460 | 438 | (1) | 4 | 913 | 864 |
| Total fee and commission income | 4,744 | 4,789 | 4,522 | (1) | 5 | 9,533 | 9,055 |
| Brokerage fees paid | 179 | 166 | 192 | 8 | (7) | 344 | 390 |
| Other | 270 | 271 | 243 | 0 | 11 | 541 | 486 |
| Total fee and commission expense | 449 | 436 | 436 | 3 | 3 | 885 | 875 |
| Net fee and commission income | 4,295 | 4,353 | 4,087 | (1) | 5 | 8,648 | 8,180 |
| *of which: net brokerage fees* | *683* | *776* | *687* | *(12)* | *(1)* | *1,459* | *1,456* |

## Note 4 Other income

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| Associates and subsidiaries | | | | | | | |
| Net gains / (losses) from disposals of subsidiaries[1] | (18) | (4) | (49) | 350 | (63) | (22) | (172) |
| Share of net profits of associates | 17 | 19 | 22 | (11) | (23) | 36 | 40 |
| Total | (2) | 15 | (27) | | (93) | 14 | (132) |
| Financial assets available for sale | | | | | | | |
| Net gains / (losses) from disposals | 129 | 6 | 161 | | (20) | 136 | 237 |
| Impairment charges | 1 | (14) | (3) | | | (13) | (3) |
| Total | 131 | (8) | 158 | | (17) | 123 | 233 |
| Net income from properties (excluding net gains / (losses) from disposals)[2] | 6 | 6 | 7 | 0 | (14) | 12 | 14 |
| Net gains / (losses) from disposals of properties held for sale | 0 | 0 | 120 | | (100) | (1) | 120 |
| Net gains / (losses) from disposals of loans and receivables | (2) | 17 | 0 | | | 16 | (1) |
| Other | 14 | 12 | 10 | 17 | 40 | 26 | 51 |
| Total other income | 147 | 43 | 269 | 242 | (45) | 190 | 286 |

1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to disposed foreign subsidiaries and branches. 2 Includes net rent received from third parties and net operating expenses.

## Note 5 Personnel expenses

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| Salaries and variable compensation | 2,428 | 2,443 | 2,530 | (1) | (4) | 4,871 | 4,890 |
| Wealth Management Americas: Financial advisor compensation[1] | 992 | 987 | 911 | 1 | 9 | 1,979 | 1,820 |
| Contractors | 107 | 93 | 117 | 15 | (9) | 200 | 218 |
| Social security | 187 | 202 | 158 | (7) | 18 | 389 | 342 |
| Pension and other post-employment benefit plans | 169 | 199 | 151 | (15) | 12 | 369 | 350 |
| Other personnel expenses | 130 | 136 | 117 | (4) | 11 | 266 | 289 |
| **Total personnel expenses[2]** | 4,014 | 4,060 | 3,985 | (1) | 1 | 8,074 | 7,910 |

1 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated on the basis of financial advisor productivity, firm tenure, assets and other variables. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. 2 Includes restructuring expenses. Refer to Note 16 for more information.

## Note 6 General and administrative expenses

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| Occupancy | 217 | 221 | 222 | (2) | (2) | 438 | 455 |
| Rent and maintenance of IT and other equipment | 135 | 144 | 125 | (6) | 8 | 279 | 266 |
| Communication and market data services | 148 | 155 | 158 | (5) | (6) | 304 | 324 |
| Administration[1] | 102 | 99 | 121 | 3 | (16) | 201 | 258 |
| Marketing and public relations | 93 | 92 | 130 | 1 | (28) | 186 | 228 |
| Travel and entertainment | 110 | 88 | 115 | 25 | (4) | 197 | 233 |
| Professional fees | 276 | 256 | 324 | 8 | (15) | 532 | 601 |
| Outsourcing of IT and other services | 362 | 383 | 383 | (5) | (5) | 745 | 818 |
| Provisions for litigation, regulatory and similar matters[2] | 9 | 33 | 72 | (73) | (88) | 42 | 111 |
| Other | 35 | 34 | 18 | 3 | 94 | 69 | 35 |
| **Total general and administrative expenses[3]** | 1,488 | 1,506 | 1,666 | (1) | (11) | 2,994 | 3,330 |

1 Includes credits related to the UK bank levy (second quarter of 2017: CHF 46 million; first quarter of 2017: CHF 25 million). 2 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. Refer to Note 14 for more information. Also includes recoveries from third parties (second quarter of 2017: CHF 1 million; first quarter of 2017: CHF 1 million; second quarter of 2016: CHF 0 million). 3 Includes restructuring expenses. Refer to Note 16 for more information.

## Note 7 Income taxes

The Group recognized an income tax expense of CHF 327 million for the second quarter of 2017 compared with an income tax expense of CHF 376 million for the second quarter of 2016.

The current tax expense was CHF 194 million compared with CHF 227 million, approximately half of which was attributable to UBS Switzerland AG in both periods.

The deferred tax expense was CHF 133 million in the second quarter of 2017 compared with CHF 149 million in the second quarter of 2016, both mainly relating to the amortization of deferred tax assets previously recognized in relation to Swiss tax losses carried forward and deductible temporary differences to reflect their offset against profits for the quarter.

The interim Financial Statements have been prepared on the basis that UBS Limited is able to offset part of its taxable profits with prior-year tax losses transferred from UBS AG in 2014 and 2015. During 2016, the UK tax authorities indicated that they do not agree with this tax return filing position. If the authorities ultimately prevail on this point, UBS Limited would incur a reduction in recognized deferred tax assets of approximately CHF 60 million, as well as additional current tax expenses for periods from 2014 onward of approximately CHF 85 million.

## Note 8 Earnings per share (EPS) and shares outstanding

| | As of or for the quarter ended | | | % change from | | As of or year-to-date | |
|---|---|---|---|---|---|---|---|
| | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| **Basic earnings (CHF million)** | | | | | | | |
| Net profit / (loss) attributable to shareholders | 1,174 | 1,269 | 1,034 | (7) | 14 | 2,443 | 1,741 |
| **Diluted earnings (CHF million)** | | | | | | | |
| Net profit / (loss) attributable to shareholders | 1,174 | 1,269 | 1,034 | (7) | 14 | 2,443 | 1,741 |
| Less: (profit) / loss on own equity derivative contracts | 0 | 0 | (1) | | (100) | 0 | (1) |
| Net profit / (loss) attributable to shareholders for diluted EPS | 1,174 | 1,269 | 1,033 | (7) | 14 | 2,443 | 1,740 |
| **Weighted average shares outstanding** | | | | | | | |
| Weighted average shares outstanding for basic EPS | 3,715,138,875 | 3,712,946,691 | 3,718,850,408 | 0 | 0 | 3,714,042,783 | 3,730,151,299 |
| Effect of dilutive potential shares resulting from notional shares, in-the-money options and warrants outstanding | 110,988,858 | 123,710,692 | 97,765,689 | (10) | 14 | 117,296,611 | 98,292,798 |
| Weighted average shares outstanding for diluted EPS | 3,826,127,733 | 3,836,657,383 | 3,816,616,097 | 0 | 0 | 3,831,339,394 | 3,828,444,097 |
| **Earnings per share (CHF)** | | | | | | | |
| Basic | 0.32 | 0.34 | 0.28 | (6) | 14 | 0.66 | 0.47 |
| Diluted | 0.31 | 0.33 | 0.27 | (6) | 15 | 0.64 | 0.45 |
| **Shares outstanding** | | | | | | | |
| Shares issued | 3,851,805,058 | 3,851,255,128 | 3,850,263,351 | 0 | 0 | | |
| Treasury shares | 135,182,950 | 137,116,350 | 143,744,288 | (1) | (6) | | |
| Shares outstanding | 3,716,622,108 | 3,714,138,778 | 3,706,519,063 | 0 | 0 | | |

The table below outlines the potential shares that could dilute basic earnings per share in the future, but were not dilutive for the periods presented.

| | | | | % change from | | | |
|---|---|---|---|---|---|---|---|
| *Number of shares* | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| **Potentially dilutive instruments** | | | | | | | |
| Employee share-based compensation awards | 30,018,635 | 31,976,718 | 55,681,518 | (6) | (46) | 30,018,635 | 55,681,518 |
| Other equity derivative contracts | 12,185,977 | 9,117,655 | 16,261,836 | 34 | (25) | 11,904,237 | 14,984,357 |
| **Total** | 42,204,612 | 41,094,373 | 71,943,354 | 3 | (41) | 41,922,872 | 70,665,875 |

## Note 9 Fair value measurement

This Note provides fair value measurement information for both financial and non-financial instruments and should be read in conjunction with "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016, which provides more information on valuation principles, valuation governance, valuation techniques, valuation adjustments, fair value hierarchy classification, valuation inputs, sensitivity of fair value measurements and methods applied to calculate fair values for financial instruments not measured at fair value.

## Note 9 Fair value measurement (continued)

### a) Fair value hierarchy

The fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value is summarized in the table below.

**Determination of fair values from quoted market prices or valuation techniques[1]**

| | 30.6.17 | | | | 31.3.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Assets measured at fair value on a recurring basis** | | | | | | | | | | | | |
| Financial assets held for trading[2] | 87,656 | 13,928 | 1,593 | 103,176 | 83,728 | 17,405 | 1,474 | 102,607 | 76,044 | 14,292 | 1,689 | 92,025 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *14,244* | *992* | *0* | *15,236* | *11,977* | *1,584* | *0* | *13,561* | *10,500* | *1,319* | *0* | *11,820* |
| *Corporate and municipal bonds* | *55* | *7,090* | *788* | *7,932* | *164* | *8,419* | *703* | *9,287* | *58* | *6,638* | *591* | *7,287* |
| *Loans* | *0* | *1,371* | *502* | *1,873* | *0* | *1,852* | *448* | *2,300* | *0* | *1,356* | *681* | *2,037* |
| *Investment fund units* | *5,242* | *2,946* | *25* | *8,213* | *4,441* | *3,783* | *20* | *8,244* | *6,114* | *3,521* | *63* | *9,698* |
| *Asset-backed securities* | *0* | *340* | *146* | *486* | *0* | *462* | *219* | *681* | *0* | *470* | *215* | *685* |
| *Equity instruments* | *58,975* | *517* | *62* | *59,554* | *58,398* | *684* | *9* | *59,092* | *50,913* | *397* | *65* | *51,375* |
| *Financial assets for unit-linked investment contracts* | *9,140* | *672* | *69* | *9,881* | *8,747* | *621* | *74* | *9,441* | *8,459* | *591* | *74* | *9,123* |
| Positive replacement values | 699 | 119,292 | 1,919 | 121,910 | 598 | 118,669 | 2,282 | 121,549 | 434 | 155,428 | 2,549 | 158,411 |
| *of which:* | | | | | | | | | | | | |
| *Interest rate contracts* | *1* | *47,589* | *161* | *47,751* | *0* | *53,168* | *168* | *53,336* | *8* | *57,703* | *278* | *57,988* |
| *Credit derivative contracts* | *0* | *2,245* | *777* | *3,023* | *0* | *2,329* | *1,166* | *3,495* | *0* | *2,562* | *1,313* | *3,875* |
| *Foreign exchange contracts* | *278* | *51,601* | *182* | *52,062* | *313* | *45,036* | *202* | *45,551* | *263* | *75,607* | *222* | *76,092* |
| *Equity / index contracts* | *18* | *16,568* | *799* | *17,385* | *1* | *16,649* | *731* | *17,381* | *1* | *17,274* | *729* | *18,003* |
| *Commodity contracts* | *0* | *1,249* | *0* | *1,250* | *0* | *1,455* | *9* | *1,464* | *0* | *2,269* | *8* | *2,277* |
| Financial assets designated at fair value | 21,488 | 28,718 | 1,580 | 51,787 | 23,081 | 24,445 | 1,588 | 49,114 | 39,641 | 23,632 | 2,079 | 65,353 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *20,579* | *3,916* | *0* | *24,494* | *22,093* | *3,460* | *0* | *25,552* | *39,439* | *4,361* | *0* | *43,799* |
| *Corporate and municipal bonds* | *730* | *20,575* | *0* | *21,306* | *809* | *18,595* | *0* | *19,404* | *15* | *16,860* | *0* | *16,875* |
| *Loans (including structured loans)* | *0* | *3,809* | *483* | *4,293* | *0* | *2,013* | *578* | *2,591* | *0* | *2,043* | *1,195* | *3,238* |
| *Structured reverse repurchase and securities borrowing agreements* | *0* | *65* | *577* | *643* | *0* | *22* | *731* | *753* | *0* | *40* | *644* | *684* |
| *Other* | *179* | *352* | *520* | *1,052* | *179* | *355* | *280* | *814* | *187* | *329* | *240* | *756* |
| Financial assets available for sale | 7,675 | 5,969 | 470 | 14,114 | 7,782 | 7,908 | 546 | 16,235 | 6,299 | 8,891 | 486 | 15,676 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *5,510* | *261* | *0* | *5,771* | *5,518* | *267* | *0* | *5,785* | *5,444* | *450* | *0* | *5,894* |
| *Corporate and municipal bonds* | *2,000* | *2,097* | *12* | *4,109* | *2,089* | *3,953* | *12* | *6,053* | *646* | *4,939* | *12* | *5,596* |
| *Investment fund units* | *0* | *69* | *99* | *168* | *0* | *69* | *122* | *191* | *0* | *51* | *126* | *177* |
| *Asset-backed securities* | *0* | *3,527* | *0* | *3,527* | *0* | *3,539* | *0* | *3,539* | *0* | *3,381* | *0* | *3,381* |
| *Equity instruments* | *165* | *14* | *359* | *539* | *170* | *81* | *400* | *651* | *204* | *71* | *336* | *611* |
| Non-financial assets | | | | | | | | | | | | |
| Precious metals and other physical commodities | 4,508 | 0 | 0 | 4,508 | 4,628 | 0 | 0 | 4,628 | 4,583 | 0 | 0 | 4,583 |
| **Assets measured at fair value on a non-recurring basis** | | | | | | | | | | | | |
| Other assets[3] | 0 | 61 | 34 | 95 | 5,009 | 123 | 35 | 5,167 | 5,060 | 131 | 56 | 5,248 |
| **Total assets measured at fair value** | 122,026 | 167,969 | 5,596 | 295,591 | 124,825 | 168,551 | 5,925 | 299,302 | 132,062 | 202,377 | 6,860 | 341,298 |

## Note 9 Fair value measurement (continued)

**Determination of fair values from quoted market prices or valuation techniques (continued)[1]**

| | 30.6.17 | | | | 31.3.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Liabilities measured at fair value on a recurring basis** | | | | | | | | | | | | |
| Trading portfolio liabilities | 20,538 | 4,695 | 87 | 25,320 | 23,422 | 5,027 | 128 | 28,576 | 18,807 | 3,898 | 119 | 22,824 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *6,378* | *591* | *0* | *6,969* | *7,438* | *501* | *0* | *7,939* | *5,573* | *648* | *0* | *6,221* |
| *Corporate and municipal bonds* | *39* | *3,799* | *6* | *3,844* | *97* | *4,194* | *38* | *4,329* | *12* | *2,927* | *37* | *2,976* |
| *Investment fund units* | *547* | *51* | *0* | *599* | *603* | *154* | *0* | *757* | *484* | *91* | *20* | *595* |
| *Equity instruments* | *13,574* | *254* | *80* | *13,907* | *15,284* | *176* | *89* | *15,549* | *12,738* | *227* | *62* | *13,026* |
| Negative replacement values | 650 | 115,528 | 2,849 | 119,027 | 608 | 115,784 | 3,572 | 119,964 | 539 | 149,255 | 4,016 | 153,810 |
| *of which:* | | | | | | | | | | | | |
| *Interest rate contracts* | *1* | *41,046* | *317* | *41,365* | *0* | *46,013* | *362* | *46,376* | *12* | *51,990* | *475* | *52,476* |
| *Credit derivative contracts* | *0* | *2,997* | *963* | *3,960* | *0* | *2,860* | *1,504* | *4,364* | *0* | *3,269* | *1,538* | *4,807* |
| *Foreign exchange contracts* | *287* | *50,996* | *138* | *51,421* | *341* | *45,354* | *149* | *45,844* | *274* | *71,668* | *148* | *72,089* |
| *Equity / index contracts* | *11* | *19,341* | *1,430* | *20,783* | *0* | *20,336* | *1,550* | *21,886* | *1* | *20,254* | *1,854* | *22,109* |
| *Commodity contracts* | *0* | *1,116* | *0* | *1,116* | *0* | *1,182* | *1* | *1,183* | *0* | *2,040* | *1* | *2,041* |
| Financial liabilities designated at fair value | 10 | 42,074 | 12,131 | 54,215 | 3 | 44,250 | 12,386 | 56,640 | 2 | 44,007 | 11,008 | 55,017 |
| *of which:* | | | | | | | | | | | | |
| *Issued debt instruments* | *9* | *37,693* | *10,228* | *47,930* | *2* | *40,406* | *10,232* | *50,640* | *0* | *40,242* | *9,688* | *49,930* |
| *Over-the-counter debt instruments* | *2* | *3,994* | *1,850* | *5,846* | *2* | *3,709* | *1,861* | *5,572* | *2* | *3,611* | *1,050* | *4,663* |
| *Structured repurchase agreements* | *0* | *381* | *48* | *429* | *0* | *122* | *288* | *410* | *0* | *130* | *266* | *395* |
| *Loan commitments and guarantees* | *0* | *6* | *4* | *10* | *0* | *12* | *5* | *18* | *0* | *25* | *5* | *29* |
| Other liabilities – amounts due under unit-linked investment contracts | 0 | 10,099 | 0 | 10,099 | 0 | 9,579 | 0 | 9,579 | 0 | 9,286 | 0 | 9,286 |
| **Liabilities measured at fair value on a non-recurring basis** | | | | | | | | | | | | |
| Other liabilities[3] | 0 | 5 | 0 | 5 | 0 | 5,052 | 0 | 5,052 | 0 | 5,213 | 0 | 5,213 |
| **Total liabilities measured at fair value** | 21,198 | 172,402 | 15,067 | 208,667 | 24,033 | 179,692 | 16,086 | 219,812 | 19,347 | 211,660 | 15,143 | 246,150 |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 30 June 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 31 million (of which CHF 36 million were net Level 2 assets and CHF 5 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 31 March 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 45 million (of which CHF 55 million were net Level 2 assets and CHF 10 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 31 December 2016, net bifurcated embedded derivative assets held at fair value totaling CHF 50 million (of which CHF 58 million were net Level 2 assets and CHF 8 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. 2 Financial assets held for trading exclude precious metals and other physical commodities. 3 Other assets and other liabilities primarily consist of assets held for sale as well as assets and liabilities of a disposal group held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell. Refer to Note 16 for more information.

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which the instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
- Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data or
- Level 3 – valuation techniques for which significant inputs are not based on observable market data.

**Note 9 Fair value measurement (continued)**

## b) Valuation adjustments

### Day-1 reserves

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period.

Deferred day-1 profit or loss related to financial instruments other than financial assets available for sale is released into *Net trading income* when pricing of equivalent products or the underlying parameters become observable or when the transaction is closed out.

Deferred day-1 profit or loss related to financial assets available for sale is released into *Other comprehensive income* when pricing of equivalent products or the underlying parameters become observable and is released into *Other income* when the assets are sold.

**Deferred day-1 profit or loss**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| **Balance at the beginning of the period** | 365 | 371 | 474 | 371 | 421 |
| Profit / (loss) deferred on new transactions | 65 | 51 | 38 | 116 | 160 |
| (Profit) / loss recognized in the income statement | (66) | (53) | (53) | (119) | (110) |
| (Profit) / loss recognized in other comprehensive income | 0 | 0 | (23) | 0 | (23) |
| Foreign currency translation | (15) | (3) | 8 | (18) | (5) |
| **Balance at the end of the period** | 349 | 365 | 444 | 349 | 444 |

## c) Transfers between Level 1 and Level 2

The amounts disclosed reflect transfers between Level 1 and Level 2 for instruments that were held for the entire reporting period.

Assets totaling approximately CHF 0.7 billion, which were mainly comprised of financial assets designated at fair value, primarily corporate and municipal bonds, were transferred from Level 2 to Level 1 during the first six months of 2017, generally due to increased levels of trading activity observed within the market. Liabilities transferred from Level 2 to Level 1 during the first six months of 2017 were negligible.

Assets totaling approximately CHF 0.2 billion, which were mainly comprised of financial assets available for sale, largely government bills / bonds, were transferred from Level 1 to Level 2 during the first six months of 2017, generally due to diminished levels of trading activity observed in the market. Liabilities transferred from Level 1 to Level 2 during the first six months of 2017 were negligible.

## Note 9 Fair value measurement (continued)

### d) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities together with the valuation techniques used to measure fair value, the significant inputs used in the valuation technique that are considered unobservable and a range of values for those unobservable inputs.

The range of values represents the highest and lowest level input used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input, but rather the different underlying characteristics of the relevant assets and liabilities. The ranges and weighted averages will vary from period to period and from parameter to parameter based on characteristics of the instruments held at each balance sheet date. Further, the ranges and weighted averages of unobservable inputs may differ across other financial institutions due to the diversity of the products in each firm's inventory.

The significant unobservable inputs disclosed in the table below are generally consistent with those included in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016. A description of the potential effect that a change in each unobservable input in isolation may have on a fair value measurement, including information to facilitate an understanding of factors that give rise to the input ranges shown, is also provided in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016.

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 30.6.17 | | | 31.12.16 | | | |
| *CHF billion* | 30.6.17 | 31.12.16 | 30.6.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Financial assets held for trading / Trading portfolio liabilities, Financial assets / liabilities designated at fair value and Financial assets available for sale** | | | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.8* | *0.6* | *0.0* | *0.0* | Relative value to market comparable | Bond price equivalent | 0 | 132 | 88 | 0 | 128 | 88 | points |
| *Traded loans, loans designated at fair value, loan commitments and guarantees* | *1.4* | *2.0* | *0.0* | *0.0* | Relative value to market comparable | Loan price equivalent | 79 | 100 | 92 | 39 | 103 | 94 | points |
| | | | | | Discounted expected cash flows | Credit spread | 42 | 459 | | 71 | 554 | | basis points |
| | | | | | Market comparable and securitization model | Discount margin | 0 | 15 | 2 | 0 | 16 | 2 | % |
| *Structured (reverse) repurchase agreements* | *0.6* | *0.6* | *0.0* | *0.3* | Discounted expected cash flows | Funding spread | 15 | 195 | | 15 | 195 | | basis points |
| *Issued and over-the-counter debt instruments[3]* | | | *12.1* | *10.7* | | | | | | | | | |

## Note 9 Fair value measurement (continued)

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities (continued)**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 30.6.17 | | | 31.12.16 | | | |
| *CHF billion* | 30.6.17 | 31.12.16 | 30.6.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Replacement values** | | | | | | | | | | | | | |
| *Interest rate contracts* | *0.2* | *0.3* | *0.3* | *0.5* | Option model | Volatility of interest rates | 27 | 123 | | 26 | 176 | | % |
| | | | | | | Rate-to-rate correlation | 84 | 94 | | 84 | 94 | | % |
| | | | | | | Intra-curve correlation | 36 | 94 | | 36 | 94 | | % |
| *Credit derivative contracts* | *0.8* | *1.3* | *1.0* | *1.5* | Discounted expected cash flow based on modeled defaults and recoveries | Credit spreads | 0 | 656 | | 0 | 791 | | basis points |
| | | | | | | Upfront price points | 4 | 72 | | 1 | 13 | | % |
| | | | | | | Recovery rates | 15 | 50 | | 0 | 50 | | % |
| | | | | | | Credit index correlation | 10 | 70 | | 10 | 85 | | % |
| | | | | | | Discount margin | 0 | 11 | | (1) | 68 | | % |
| | | | | | | Credit pair correlation | 59 | 83 | | 59 | 100 | | % |
| | | | | | Discounted cash flow projection on underlying bond | Constant prepayment rate | 4 | 15 | | 1 | 15 | | % |
| | | | | | | Constant default rate | 1 | 6 | | 1 | 8 | | % |
| | | | | | | Loss severity | 40 | 100 | | 40 | 100 | | % |
| | | | | | | Discount margin | 0 | 8 | | 0 | 11 | | % |
| | | | | | | Bond price equivalent | 3 | 187 | | 3 | 100 | | points |
| *Equity / index contracts* | *0.8* | *0.7* | *1.4* | *1.9* | Option model | Equity dividend yields | 0 | 15 | | 0 | 15 | | % |
| | | | | | | Volatility of equity stocks, equity and other indices | 0 | 220 | | 0 | 150 | | % |
| | | | | | | Equity-to-FX correlation | (45) | 82 | | (45) | 82 | | % |
| | | | | | | Equity-to-equity correlation | (50) | 97 | | 12 | 98 | | % |

1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par (e.g., 100 points would be 100% of par). 2 Weighted averages are provided for non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to derivative contracts as this would not be meaningful. 3 Valuation techniques, significant unobservable inputs and the respective input ranges for issued debt instruments and over-the-counter debt instruments are the same as the equivalent derivative or structured financing instruments presented elsewhere in this table.

**Note 9 Fair value measurement (continued)**

## e) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible alternative assumptions would change fair value significantly, and the estimated effect thereof.

The table shown presents the favorable and unfavorable effects for each class of financial assets and liabilities for which the potential change in fair value is considered significant. The sensitivity data presented represent an estimation of valuation uncertainty based on reasonably possible alternative values for Level 3 inputs at the balance sheet date and does not represent the estimated effect of stress scenarios. Typically, these financial assets and liabilities are sensitive to a combination of inputs from Levels 1 through 3. Although well-defined interdependencies may exist between Levels 1–2 and Level 3 parameters (e.g., between interest rates, which are generally Level 1 or Level 2, and prepayments, which are generally Level 3), these have not been incorporated in the table. Further, direct interrelationships between the Level 3 parameters are not a significant element of the valuation uncertainty.

**Sensitivity of fair value measurements to changes in unobservable input assumptions**

| | 30.6.17 | | 31.3.17 | | 31.12.16 | |
|---|---|---|---|---|---|---|
| *CHF million* | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] |
| Corporate and municipal bonds | 15 | (20) | 35 | (30) | 34 | (39) |
| Traded loans, loans designated at fair value, loan commitments and guarantees | 80 | (8) | 78 | (7) | 82 | (10) |
| Equity instruments | 71 | (50) | 70 | (50) | 67 | (47) |
| Interest rate derivative contracts, net | 22 | (40) | 28 | (31) | 41 | (42) |
| Credit derivative contracts, net | 119 | (136) | 114 | (147) | 131 | (183) |
| Foreign exchange derivative contracts, net | 12 | (6) | 11 | (6) | 17 | (8) |
| Equity / index derivative contracts, net | 73 | (81) | 61 | (65) | 63 | (63) |
| Issued and over-the-counter debt instruments | 85 | (89) | 81 | (81) | 96 | (93) |
| Other | 23 | (23) | 21 | (26) | 29 | (31) |
| **Total** | 499 | (452) | 499 | (442) | 560 | (517) |

1 Of the total favorable changes, CHF 72 million as of 30 June 2017 (31 March 2017: CHF 76 million; 31 December 2016: CHF 75 million) related to financial assets available for sale. Of the total unfavorable changes, CHF 51 million as of 30 June 2017 (31 March 2017: CHF 55 million; 31 December 2016: CHF 55 million) related to financial assets available for sale.

## Note 9 Fair value measurement (continued)

### f) Level 3 instruments: movements during the period

#### Significant changes in Level 3 instruments

The table on the following pages presents additional information about material Level 3 assets and liabilities measured at fair value on a recurring basis. Level 3 assets and liabilities may be hedged with instruments classified as Level 1 or Level 2 in the fair value hierarchy and, as a result, realized and unrealized gains and losses included in the table may not include the effect of related hedging activity. Furthermore, the realized and unrealized gains and losses presented within the table are not limited solely to those arising from Level 3 inputs, as valuations are generally derived from both observable and unobservable parameters.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Assets transferred into and out of Level 3 totaled CHF 0.4 billion and CHF 0.8 billion, respectively. Transfers into Level 3 were primarily comprised of corporate and municipal bonds and equity / index contracts, and were mainly due to decreased observability of the respective market pricing inputs. Transfers out of Level 3 were primarily comprised of credit derivative and equity / index contracts, reflecting increased observability of the respective credit spread and equity volatility inputs.

Liabilities transferred into and out of Level 3 totaled CHF 0.4 billion and CHF 1.9 billion, respectively. Transfers into Level 3 were primarily comprised of equity-linked issued debt instruments and equity / index contracts, due to decreased observability of the respective equity volatility inputs used to determine the fair value of the options embedded in these structures. Transfers out of Level 3 were primarily comprised of equity-linked issued debt instruments, equity / index and credit derivative contracts resulting from changes in the availability of the observable equity volatility and credit spread inputs used to determine the fair value of the options embedded in these structures.

## Note 9 Fair value measurement (continued)

**Movements of Level 3 instruments**

| | | Total gains / losses included in comprehensive income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF billion* | **Balance as of 31 December 2015** | Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | **Balance as of 30 June 2016** |
| Financial assets held for trading | 2.1 | (0.1) | *0.0* | 0.6 | (3.0) | 2.5 | 0.0 | 0.5 | (0.4) | (0.1) | 2.2 |
| *of which:* | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.7* | *0.1* | *0.1* | *0.5* | *(0.3)* | *0.0* | *0.0* | *0.0* | *(0.1)* | *(0.1)* | *0.8* |
| *Loans* | *0.8* | *0.0* | *0.1* | *0.0* | *(2.3)* | *2.5* | *0.0* | *0.1* | *(0.2)* | *0.0* | *0.9* |
| *Other* | *0.6* | *(0.2)* | *(0.2)* | *0.1* | *(0.4)* | *0.0* | *0.0* | *0.4* | *(0.1)* | *0.0* | *0.4* |
| Financial assets designated at fair value | 3.3 | (0.2) | *(0.2)* | 0.0 | 0.0 | 0.2 | (0.8) | 0.4 | (0.1) | (0.1) | 2.8 |
| *of which:* | | | | | | | | | | | |
| *Loans (including structured loans)* | *1.7* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.2* | *(0.5)* | *0.4* | *(0.1)* | *(0.1)* | *1.5* |
| *Structured reverse repurchase and securities borrowing agreements* | *1.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.0* | *0.0* | *0.0* | *1.2* |
| *Other* | *0.1* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* |
| Financial assets available for sale | 0.7 | 0.0 | *0.0* | 0.1 | (0.1) | 0.0 | 0.0 | 0.0 | (0.1) | 0.0 | 0.6 |
| Positive replacement values | 2.9 | 0.0 | *0.0* | 0.0 | 0.0 | 0.5 | (1.1) | 0.5 | (0.4) | (0.1) | 2.3 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.1* | *0.1* | *0.0* | *0.0* | *0.1* | *(0.3)* | *0.1* | *(0.2)* | *0.0* | *0.9* |
| *Equity / index contracts* | *1.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* | *(0.3)* | *0.2* | *(0.1)* | *0.0* | *0.9* |
| *Other* | *0.6* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.3* | *(0.5)* | *0.2* | *0.0* | *0.0* | *0.5* |
| Negative replacement values | 3.3 | 0.8 | *0.8* | 0.0 | 0.0 | 0.5 | (1.1) | 0.6 | (0.2) | 0.0 | 4.0 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.7* | *0.6* | *0.0* | *0.0* | *0.1* | *(0.4)* | *0.0* | *0.0* | *0.0* | *1.6* |
| *Equity / index contracts* | *1.4* | *0.0* | *0.0* | *0.0* | *0.0* | *0.4* | *(0.2)* | *0.1* | *(0.1)* | *0.0* | *1.6* |
| *Other* | *0.6* | *0.2* | *0.2* | *0.0* | *0.0* | *0.0* | *(0.4)* | *0.5* | *0.0* | *0.0* | *0.8* |
| Financial liabilities designated at fair value | 10.7 | 0.5 | *0.5* | 0.0 | 0.0 | 2.3 | (1.4) | 1.1 | (1.3) | (0.2) | 11.6 |
| *of which:* | | | | | | | | | | | |
| *Issued debt instruments* | *9.3* | *0.6* | *0.5* | *0.0* | *0.0* | *1.6* | *(0.9)* | *1.0* | *(1.3)* | *(0.2)* | *10.1* |
| *Over-the-counter debt instruments* | *0.8* | *0.0* | *0.0* | *0.0* | *0.0* | *0.6* | *(0.5)* | *0.0* | *0.0* | *0.0* | *0.9* |
| *Structured repurchase agreements* | *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.6* |

1 Total Level 3 assets as of 30 June 2017 were CHF 5.6 billion (31 March 2017: CHF 5.9 billion; 31 December 2016: CHF 6.9 billion). Total Level 3 liabilities as of 30 June 2017 were CHF 15.1 billion (31 March 2017: CHF 16.1 billion; 31 December 2016: CHF 15.1 billion).

## Note 9 Fair value measurement (continued)

| Balance as of 31 December 2016 | Total gains / losses included in comprehensive income: Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | Balance as of 30 June 2017[1] |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.7 | 0.0 | *0.0* | 0.7 | (2.3) | 1.6 | 0.0 | 0.2 | (0.2) | 0.0 | 1.6 |
| *0.6* | *0.0* | *0.0* | *0.3* | *(0.1)* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* | *0.8* |
| *0.7* | *0.1* | *0.0* | *0.3* | *(2.1)* | *1.6* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.5* |
| *0.4* | *(0.1)* | *(0.1)* | *0.1* | *(0.1)* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* | *0.3* |
| 2.1 | 0.0 | *0.0* | 0.0 | 0.0 | 0.3 | (0.7) | 0.0 | (0.1) | 0.0 | 1.6 |
| *1.2* | *0.1* | *0.1* | *0.0* | *0.0* | *0.0* | *(0.7)* | *0.0* | *(0.1)* | *0.0* | *0.5* |
| *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.6* |
| *0.2* | *0.0* | *0.0* | *0.0* | *0.0* | *0.3* | *0.0* | *0.0* | *0.0* | *0.0* | *0.5* |
| 0.5 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| 2.5 | (0.2) | *(0.3)* | 0.0 | 0.0 | 0.4 | (0.5) | 0.1 | (0.5) | 0.0 | 1.9 |
| *1.3* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *(0.3)* | *0.0* | *0.8* |
| *0.7* | *0.0* | *0.0* | *0.0* | *0.0* | *0.4* | *(0.2)* | *0.1* | *(0.1)* | *0.0* | *0.8* |
| *0.5* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *(0.1)* | *0.0* | *0.3* |
| 4.0 | (0.1) | *(0.2)* | 0.0 | 0.0 | 0.5 | (1.0) | 0.1 | (0.7) | 0.0 | 2.8 |
| *1.5* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *(0.3)* | *0.0* | *1.0* |
| *1.9* | *0.0* | *0.0* | *0.0* | *0.0* | *0.5* | *(0.5)* | *0.1* | *(0.4)* | *0.0* | *1.4* |
| *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *(0.1)* | *0.0* | *0.5* |
| 11.0 | 1.1 | *0.8* | 0.0 | 0.0 | 3.9 | (2.5) | 0.2 | (1.2) | (0.3) | 12.1 |
| *9.7* | *1.0* | *0.8* | *0.0* | *0.0* | *2.5* | *(2.0)* | *0.2* | *(0.9)* | *(0.3)* | *10.2* |
| *1.1* | *0.0* | *0.0* | *0.0* | *0.0* | *1.3* | *(0.5)* | *0.0* | *0.0* | *0.0* | *1.9* |
| *0.3* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *0.0* |

## Note 9 Fair value measurement (continued)

### g) Financial instruments not measured at fair value

The table below reflects the estimated fair values of financial instruments not measured at fair value.

**Financial instruments not measured at fair value**

| | 30.6.17 | | 31.3.17 | | 31.12.16 | |
|---|---|---|---|---|---|---|
| *CHF billion* | Carrying value | Fair value | Carrying value | Fair value | Carrying value | Fair value |
| **Assets** | | | | | | |
| Cash and balances with central banks | 100.1 | 100.1 | 108.9 | 108.9 | 107.8 | 107.8 |
| Due from banks | 14.4 | 14.4 | 14.2 | 14.2 | 13.2 | 13.2 |
| Cash collateral on securities borrowed | 15.1 | 15.1 | 18.5 | 18.5 | 15.1 | 15.1 |
| Reverse repurchase agreements | 75.3 | 75.3 | 77.0 | 77.0 | 66.2 | 66.2 |
| Cash collateral receivables on derivative instruments | 22.7 | 22.7 | 22.5 | 22.5 | 26.7 | 26.7 |
| Loans | 308.3 | 310.4 | 309.1 | 311.9 | 306.3 | 309.7 |
| Financial assets held to maturity | 8.7 | 8.6 | 9.0 | 8.8 | 9.3 | 9.1 |
| Other assets | 21.1 | 21.1 | 20.8 | 20.8 | 18.5 | 18.5 |
| **Liabilities** | | | | | | |
| Due to banks | 11.6 | 11.6 | 8.7 | 8.7 | 10.6 | 10.6 |
| Cash collateral on securities lent | 2.5 | 2.5 | 3.1 | 3.1 | 2.8 | 2.8 |
| Repurchase agreements | 11.3 | 11.3 | 10.6 | 10.6 | 6.6 | 6.6 |
| Cash collateral payables on derivative instruments | 31.5 | 31.5 | 29.9 | 29.9 | 35.5 | 35.5 |
| Due to customers | 404.3 | 404.3 | 419.4 | 419.4 | 423.7 | 423.7 |
| Debt issued | 121.7 | 125.1 | 114.8 | 117.9 | 103.7 | 106.1 |
| Other liabilities | 35.9 | 35.9 | 37.7 | 37.7 | 38.3 | 38.4 |

The fair values included in the table above were calculated for disclosure purposes only. The fair value valuation techniques and assumptions relate only to the fair value of UBS's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimation, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another.

## Note 10 Derivative instruments

### a) Derivative instruments

| *As of 30.6.17, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 47.8 | 1,065 | 41.4 | 976 | 10,324 |
| Credit derivative contracts | 3.0 | 107 | 4.0 | 116 | 2 |
| Foreign exchange contracts | 52.1 | 2,292 | 51.4 | 2,144 | 8 |
| Equity / index contracts | 17.4 | 302 | 20.8 | 367 | 65 |
| Commodity contracts | 1.2 | 33 | 1.1 | 32 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.2 | 24 | 0.2 | 29 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 36 | 0.2 | 15 | |
| **Total derivative instruments, based on IFRS netting[4]** | 121.9 | 3,859 | 119.0 | 3,678 | 10,408 |
| Further netting potential not recognized on the balance sheet[5] | (107.7) | | (98.9) | | |
| *of which: netting of recognized financial liabilities / assets* | *(85.3)* | | *(85.3)* | | |
| *of which: netting with collateral received / pledged* | *(22.4)* | | *(13.5)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 14.2 | | 20.2 | | |

| *As of 31.3.17, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 53.3 | 1,099 | 46.4 | 1,018 | 10,344 |
| Credit derivative contracts | 3.5 | 126 | 4.4 | 132 | 2 |
| Foreign exchange contracts | 45.6 | 2,645 | 45.8 | 2,579 | 12 |
| Equity / index contracts | 17.4 | 293 | 21.9 | 360 | 68 |
| Commodity contracts | 1.5 | 35 | 1.2 | 29 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.2 | 34 | 0.2 | 20 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 26 | 0.2 | 24 | |
| **Total derivative instruments, based on IFRS netting[4]** | 121.5 | 4,259 | 120.0 | 4,162 | 10,435 |
| Further netting potential not recognized on the balance sheet[5] | (107.9) | | (100.9) | | |
| *of which: netting of recognized financial liabilities / assets* | *(86.4)* | | *(86.4)* | | |
| *of which: netting with collateral received / pledged* | *(21.6)* | | *(14.5)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 13.6 | | 19.1 | | |

| *As of 31.12.16, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 58.0 | 1,152 | 52.5 | 1,060 | 9,730 |
| Credit derivative contracts | 3.9 | 123 | 4.8 | 140 | |
| Foreign exchange contracts | 76.1 | 2,470 | 72.1 | 2,286 | 6 |
| Equity / index contracts | 18.0 | 269 | 22.1 | 318 | 55 |
| Commodity contracts | 2.3 | 39 | 2.0 | 36 | 9 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.1 | 18 | 0.1 | 10 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.1 | 13 | 0.2 | 11 | |
| **Total derivative instruments, based on IFRS netting[4]** | 158.4 | 4,084 | 153.8 | 3,860 | 9,799 |
| Further netting potential not recognized on the balance sheet[5] | (139.8) | | (129.6) | | |
| *of which: netting of recognized financial liabilities / assets* | *(113.1)* | | *(113.1)* | | |
| *of which: netting with collateral received / pledged* | *(26.7)* | | *(16.6)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 18.6 | | 24.2 | | |

1 In cases where replacement values are presented on a net basis on the balance sheet, the respective notional values of the netted replacement values are still presented on a gross basis. 2 Other notional values relate to derivatives that are cleared through either a central counterparty or an exchange. Many of these derivatives are either legally or economically settled on a daily basis. The residual unsettled fair value of these derivatives and the fair value of other derivatives that are presented on the balance sheet net of the corresponding cash margin, both within Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments, was not material for all periods presented. 3 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as replacement values. 4 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. 5 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 10 Derivative instruments (continued)

### b) Cash collateral on derivative instruments

| CHF billion | Receivables 30.6.17 | Payables 30.6.17 | Receivables 31.3.17 | Payables 31.3.17 | Receivables 31.12.16 | Payables 31.12.16 |
|---|---|---|---|---|---|---|
| Cash collateral on derivative instruments, based on IFRS netting[1] | 22.7 | 31.5 | 22.5 | 29.9 | 26.7 | 35.5 |
| Further netting potential not recognized on the balance sheet[2] | (11.2) | (18.4) | (13.2) | (18.1) | (15.1) | (22.2) |
| *of which: netting of recognized financial liabilities / assets* | *(10.7)* | *(17.8)* | *(11.6)* | *(16.8)* | *(14.2)* | *(20.8)* |
| *of which: netting with collateral received / pledged* | *(0.5)* | *(0.7)* | *(1.6)* | *(1.3)* | *(1.0)* | *(1.4)* |
| **Cash collateral on derivative instruments, after consideration of further netting potential** | 11.5 | 13.1 | 9.3 | 11.8 | 11.5 | 13.3 |

1 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Effective 3 January 2017, interest rate swaps and credit derivatives transacted with the Chicago Mercantile Exchange (CME) were legally converted from the previous collateral model to a settlement model resulting in a derecognition of the associated assets and liabilities, with UBS no longer applying IAS 32 netting principles. Refer to "Note 10 Derivative instruments" in the "Consolidated financial statements" section of the first quarter 2017 report for more information. 2 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 11 Other assets and liabilities

| CHF million | 30.6.17 | 31.3.17 | 31.12.16 |
|---|---|---|---|
| **Other assets** | | | |
| Prime brokerage receivables[1] | 12,388 | 11,372 | 9,828 |
| Recruitment loans to financial advisors | 2,643 | 2,952 | 3,087 |
| Other loans to financial advisors | 557 | 566 | 471 |
| Bail deposit[2] | 1,246 | 1,212 | 1,213 |
| Accrued interest income | 557 | 760 | 526 |
| Accrued income – other | 857 | 1,093 | 818 |
| Prepaid expenses | 1,031 | 1,073 | 1,010 |
| Settlement and clearing accounts | 385 | 499 | 516 |
| VAT and other tax receivables | 325 | 252 | 292 |
| Properties and other non-current assets held for sale | 95 | 92 | 111 |
| Assets of disposal group held for sale[3] | 0 | 5,074 | 5,137 |
| Other | 2,709 | 2,553 | 2,427 |
| **Total other assets** | 22,793 | 27,500 | 25,436 |
| **Other liabilities** | | | |
| Prime brokerage payables[1] | 30,068 | 31,496 | 31,973 |
| Amounts due under unit-linked investment contracts | 10,099 | 9,579 | 9,286 |
| Compensation-related liabilities | 6,303 | 5,756 | 7,421 |
| *of which: accrued expenses* | *1,641* | *1,031* | *2,423* |
| *of which: Deferred Contingent Capital Plan* | *1,771* | *1,644* | *1,625* |
| *of which: other deferred compensation plans* | *1,821* | *1,875* | *2,107* |
| *of which: net defined benefit pension and post-employment liabilities* | *1,071* | *1,206* | *1,266* |
| Third-party interest in consolidated investment funds | 327 | 385 | 701 |
| Settlement and clearing accounts | 707 | 920 | 1,012 |
| Current and deferred tax liabilities | 702 | 1,135 | 949 |
| VAT and other tax payables | 492 | 499 | 503 |
| Deferred income | 192 | 202 | 168 |
| Accrued interest expenses | 1,162 | 1,370 | 1,553 |
| Other accrued expenses | 2,307 | 2,780 | 2,448 |
| Liabilities of disposal group held for sale[3] | 0 | 5,052 | 5,213 |
| Other | 1,294 | 764 | 793 |
| **Total other liabilities** | 53,653 | 59,939 | 62,020 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage receivables are mainly comprised of margin lending receivables. Prime brokerage payables are mainly comprised of client securities financing and deposits. 2 Refer to item 1 in Note 14b for more information. 3 Refer to Note 16 for more information.

## Note 12 Financial liabilities designated at fair value

| *CHF million* | 30.6.17 | 31.3.17 | 31.12.16 |
|---|---|---|---|
| **Issued debt instruments** | | | |
| Equity-linked[1] | 31,869 | 31,802 | 29,831 |
| Rates-linked | 6,801 | 9,379 | 10,150 |
| Credit-linked | 3,748 | 3,888 | 4,101 |
| Fixed-rate | 3,123 | 3,100 | 2,972 |
| Other | 2,389 | 2,471 | 2,875 |
| **Total issued debt instruments** | 47,930 | 50,640 | 49,930 |
| *of which: issued by UBS AG with original maturity greater than one year[2,3]* | *35,095* | *35,601* | *36,347* |
| **Over-the-counter debt instruments** | 5,846 | 5,572 | 4,663 |
| *of which: issued by UBS AG with original maturity greater than one year[2,4]* | *4,824* | *4,521* | *4,210* |
| **Other** | 439 | 428 | 425 |
| **Total** | 54,215 | 56,640 | 55,017 |
| *of which: life-to-date own credit (gain) / loss* | *128* | *49* | *(141)* |

1 Includes investment fund unit-linked instruments issued. 2 Issued by the legal entity UBS AG. Based on original contractual maturity without considering any early redemption features. 3 More than 99% of the balance as of 30 June 2017 was unsecured (31 March 2017: more than 99% of the balance was unsecured; 31 December 2016: more than 99% of the balance was unsecured). 4 More than 20% of the balance as of 30 June 2017 was unsecured (31 March 2017: more than 25% of the balance was unsecured; 31 December 2016: more than 35% of the balance was unsecured).

## Note 13 Debt issued held at amortized cost

| *CHF million* | 30.6.17 | 31.3.17 | 31.12.16 |
|---|---|---|---|
| Certificates of deposit | 33,162 | 28,825 | 20,207 |
| Commercial paper | 6,530 | 1,355 | 1,653 |
| Other short-term debt | 4,199 | 5,186 | 4,318 |
| **Short-term debt[1]** | 43,891 | 35,367 | 26,178 |
| Senior fixed-rate bonds | 25,527 | 26,580 | 27,008 |
| *of which: issued by UBS AG with original maturity greater than one year[2,3]* | *25,450* | *26,495* | *26,850* |
| Senior unsecured debt that contributes to total loss-absorbing capacity | 23,521 | 23,531 | 16,890 |
| Covered bonds | 3,896 | 3,829 | 5,836 |
| Subordinated debt | 16,431 | 17,018 | 19,325 |
| *of which: high-trigger loss-absorbing additional tier 1 capital instruments* | *5,153* | *5,330* | *5,429* |
| *of which: low-trigger loss-absorbing additional tier 1 capital instruments* | *2,295* | *2,313* | *2,342* |
| *of which: low-trigger loss-absorbing tier 2 capital instruments* | *8,110* | *8,265* | *10,429* |
| *of which: non-Basel III-compliant tier 2 capital instruments* | *873* | *1,109* | *1,125* |
| Debt issued through the central bond institutions of the Swiss regional or cantonal banks | 8,369 | 8,300 | 8,302 |
| Other long-term debt | 91 | 100 | 112 |
| *of which: issued by UBS AG with original maturity greater than one year[2,4]* | *68* | *87* | *94* |
| **Long-term debt[5]** | 77,836 | 79,359 | 77,472 |
| **Total debt issued held at amortized cost[6]** | 121,727 | 114,725 | 103,649 |

1 Debt with an original maturity of less than one year. 2 Issued by the legal entity UBS AG. Based on original contractual maturity without considering any early redemption features. 3 100% of the balance as of 30 June 2017 was unsecured (31 March 2017: 100% of the balance was unsecured; 31 December 2016: 100% of the balance was unsecured). 4 More than 95% of the balance as of 30 June 2017 was unsecured (31 March 2017: 100% of the balance was unsecured; 31 December 2016: 100% of the balance was unsecured). 5 Debt with an original maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features. 6 Net of bifurcated embedded derivatives with a net positive fair value of CHF 20 million as of 30 June 2017 (31 March 2017: net positive fair value of CHF 34 million; 31 December 2016: net positive fair value of CHF 38 million).

## Note 14 Provisions and contingent liabilities

### a) Provisions

| CHF million | Operational risks[1] | Litigation, regulatory and similar matters[2] | Restructuring | Loan commitments and guarantees | Real estate | Employee benefits[5] | Other | Total provisions |
|---|---|---|---|---|---|---|---|---|
| Balance as of 31 December 2016 | 50 | 3,261 | 498 | 54 | 142 | 77 | 91 | 4,174 |
| Balance as of 31 March 2017 | 49 | 2,918 | 433 | 51 | 138 | 76 | 92 | 3,757 |
| Increase in provisions recognized in the income statement | 6 | 53 | 49 | 2 | 1 | 4 | 3 | 119 |
| Release of provisions recognized in the income statement | (3) | (43) | (11) | (10) | 0 | (11) | 0 | (78) |
| Provisions used in conformity with designated purpose | (4) | (410) | (76) | 0 | (4) | 0 | (21) | (515) |
| Capitalized reinstatement costs | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Reclassifications | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 10 |
| Foreign currency translation / unwind of discount | 0 | (72) | (10) | 0 | (5) | (1) | (1) | (88) |
| Balance as of 30 June 2017 | 47 | 2,446 | 385[3] | 53 | 132[4] | 68 | 74 | 3,207 |

1 Comprises provisions for losses resulting from security risks and transaction processing risks. 2 Comprises provisions for losses resulting from legal, liability and compliance risks. 3 Consists of personnel-related restructuring provisions of CHF 95 million as of 30 June 2017 (31 March 2017: CHF 109 million; 31 December 2016: CHF 150 million) and provisions for onerous lease contracts of CHF 290 million as of 30 June 2017 (31 March 2017: CHF 324 million; 31 December 2016: CHF 348 million). 4 Consists of reinstatement costs for leasehold improvements of CHF 88 million as of 30 June 2017 (31 March 2017: CHF 88 million; 31 December 2016: CHF 87 million) and provisions for onerous lease contracts of CHF 45 million as of 30 June 2017 (31 March 2017: CHF 50 million; 31 December 2016: CHF 55 million). 5 Includes provisions for sabbatical and anniversary awards as well as provisions for severance that are not part of restructuring provisions.

Restructuring provisions primarily relate to onerous lease contracts and severance payments. The use of onerous lease provisions is driven by the maturities of the underlying lease contracts. Severance-related provisions are used within a short time period, usually within six months, but potential changes in amount may be triggered when natural staff attrition reduces the number of people affected by a restructuring and therefore the estimated costs.

Information on provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 14b. There are no material contingent liabilities associated with the other classes of provisions.

### b) Litigation, regulatory and similar matters

The Group operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS Group AG and / or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where the Group may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which the Group believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. The Group makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against the Group, but are nevertheless expected to be, based on the Group's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to select matters could be significant.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

**Note 14 Provisions and contingent liabilities (continued)**

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard, or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in Note 14a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require us to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although we therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, we believe that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. For example, the Non-Prosecution Agreement (NPA) described in item 5 of this Note, which we entered into with the US Department of Justice (DOJ), Criminal Division, Fraud Section in connection with our submissions of benchmark interest rates, including, among others, the British Bankers' Association London Interbank Offered Rate (LIBOR), was terminated by the DOJ based on its determination that we had committed a US crime in relation to foreign exchange matters. As a consequence, UBS AG pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, paid a USD 203 million fine and is subject to a three-year term of probation. A guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for UBS. Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate our participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining our capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital management" section of this report.

**Provisions for litigation, regulatory and similar matters by business division and Corporate Center unit[1]**

| *CHF million* | Wealth Manage-ment | Wealth Management Americas | Personal & Corporate Banking | Asset Manage-ment | Investment Bank | CC – Services | CC – Group ALM | CC – Non-core and Legacy Portfolio | UBS |
|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | 292 | 425 | 78 | 5 | 616 | 259 | 0 | 1,585 | 3,261 |
| **Balance as of 31 March 2017** | 244 | 385 | 77 | 4 | 404 | 255 | 0 | 1,550 | 2,918 |
| Increase in provisions recognized in the income statement | 1 | 44 | 0 | 5 | 0 | 0 | 0 | 2 | 53 |
| Release of provisions recognized in the income statement | 0 | (2) | 0 | (4) | 0 | 0 | 0 | (36) | (43) |
| Provisions used in conformity with designated purpose | (1) | (50) | 0 | 0 | 0 | (2) | 0 | (356) | (410) |
| Foreign currency translation / unwind of discount | 6 | (16) | 0 | 0 | (12) | 0 | 0 | (50) | (72) |
| **Balance as of 30 June 2017** | 249 | 361 | 77 | 5 | 391 | 253 | 0 | 1,110 | 2,446 |

1 Provisions, if any, for the matters described in this Note are recorded in Wealth Management (item 3), Wealth Management Americas (item 4), the Investment Bank (item 8), Corporate Center – Services (item 7) and Corporate Center – Non-core and Legacy Portfolio (item 2). Provisions, if any, for the matters described in items 1 and 6 of this Note are allocated between Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in this Note in item 5 are allocated between the Investment Bank, Corporate Center – Services and Corporate Center – Non-core and Legacy Portfolio.

**Note 14 Provisions and contingent liabilities (continued)**

### 1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions. It is possible that implementation of automatic tax information exchange and other measures relating to cross-border provision of financial services could give rise to further inquiries in the future. UBS has received disclosure orders from the Swiss Federal Tax Administration (FTA) to transfer information based on requests for international administrative assistance in tax matters. The requests concern a number of UBS account numbers pertaining to current and former clients and are based on data from 2006 and 2008. UBS has taken steps to inform affected clients about the administrative assistance proceedings and their procedural rights, including the right to appeal. The requests are based on data received from the German authorities, who seized certain data related to UBS clients booked in Switzerland during their investigations and have apparently shared this data with other European countries. UBS expects additional countries to file similar requests. In addition, the Swiss Federal Supreme Court ruled in 2016 that the double taxation agreement between the Netherlands and Switzerland provides a sufficient legal basis for an administrative assistance group request without specifying the names of the targeted taxpayers, which makes it more likely that similar requests for administrative assistance will be granted by the FTA.

The Swiss Federal Administrative Court ruled in 2016 that in the administrative assistance proceedings related to a French bulk request, UBS has the right to appeal all final FTA client data disclosure orders.

Since 2013, UBS (France) S.A. and UBS AG and certain former employees have been under investigation in France for alleged complicity in having illicitly solicited clients on French territory and regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons. In connection with this investigation, the investigating judges ordered UBS AG to provide bail ("*caution*") of EUR 1.1 billion and UBS (France) S.A. to post bail of EUR 40 million, which was reduced on appeal to EUR 10 million.

In February 2016, the investigating judges notified UBS AG and UBS (France) S.A. that they have closed their investigation. In July 2016, UBS AG and UBS (France) S.A. received the National Financial Prosecutor's recommendation ("*réquisitoire*"). In March 2017, the investigating judges issued the trial order ("*ordonnance de renvoi*") that charges UBS AG and UBS (France) S.A., as well as various former employees, with illicit solicitation of clients on French territory and with participation in the laundering of the proceeds of tax fraud, and which transfers the case to court. The trial schedule has not yet been announced.

In February 2016, UBS was notified by the Belgian investigating judge that it is under formal investigation ("*inculpé*") regarding the laundering of proceeds of tax fraud and of banking, financial solicitation by unauthorized persons and serious tax fraud.

In 2015, UBS received inquiries from the US Attorney's Office for the Eastern District of New York and from the US Securities and Exchange Commission (SEC), which are investigating potential sales to US persons of bearer bonds and other unregistered securities in possible violation of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and the registration requirements of the US securities laws. UBS is cooperating with the authorities in these investigations.

UBS has, and reportedly numerous other financial institutions have, received inquiries from authorities concerning accounts relating to the Fédération Internationale de Football Association (FIFA) and other constituent soccer associations and related persons and entities. UBS is cooperating with authorities in these inquiries.

Our balance sheet at 30 June 2017 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages. A subsidiary of UBS, UBS Real Estate Securities Inc. (UBS RESI), acquired pools of residential mortgage loans from originators and (through an affiliate) deposited them into securitization trusts. In this manner, from 2004 through 2007, UBS RESI sponsored approximately USD 80 billion in RMBS, based on the original principal balances of the securities issued.

UBS RESI also sold pools of loans acquired from originators to third-party purchasers. These whole loan sales during the period 2004 through 2007 totaled approximately USD 19 billion in original principal balance.

We were not a significant originator of US residential loans. A branch of UBS originated approximately USD 1.5 billion in US residential mortgage loans during the period in which it was active from 2006 to 2008, and securitized less than half of these loans.

*RMBS-related lawsuits concerning disclosures:* UBS has been named as a defendant in lawsuits relating to its role as underwriter and issuer of RMBS.

In April 2017, UBS reached a final settlement in a lawsuit brought in the US District Court for the District of Kansas by the National Credit Union Administration (NCUA) as conservator for certain failed credit unions, asserting misstatements and omissions in the offering documents for USD 1.15 billion in original principal balance of RMBS purchased by the credit unions. UBS and the NCUA settled this matter for USD 445 million. A similar case brought by the NCUA in the US District Court for the Southern District of New York (SDNY) was settled in 2016.

UBS has indemnification rights against surviving third-party issuers or originators for losses or liabilities incurred by UBS in connection with certain of these matters.

*Lawsuits related to contractual representations and warranties concerning mortgages and RMBS:* When UBS acted as an RMBS sponsor or mortgage seller, we generally made certain representations relating to the characteristics of the underlying loans. In the event of a material breach of these representations, we were in certain circumstances contractually obligated to repurchase the loans to which the representations related or to indemnify certain parties against losses. UBS has received demands to repurchase US residential mortgage loans as to which UBS made certain representations at the time the loans were transferred to the securitization trust aggregating USD 4.1 billion in original principal balance. Of this amount, UBS considers claims relating to USD 2 billion in original principal balance to be resolved, including claims barred by the statute of limitations. Substantially all of the remaining claims are in litigation, including the matters described in the next paragraph. UBS believes that new demands to repurchase US residential mortgage loans are time-barred under a decision rendered by the New York Court of Appeals.

In 2012, certain RMBS trusts filed an action (Trustee Suit) in the SDNY seeking to enforce UBS RESI's obligation to repurchase loans in the collateral pools for three RMBS securitizations with an original principal balance of approximately USD 2 billion, for which Assured Guaranty Municipal Corp., a financial guaranty insurance company, had previously demanded repurchase. Approximately 9,000 loans were at issue in a bench trial in the SDNY in 2016, following which the court issued an order ruling on numerous legal and factual issues and applying those rulings to 20 exemplar loans. The court further ordered that a lead master be appointed to apply the court's rulings to the loans that remain at issue following the trial. With respect to the loans subject to the Trustee Suit that were originated by institutions still in existence, UBS intends to enforce its indemnity rights against those institutions.

*Mortgage-related regulatory matters:* In 2014, UBS received a subpoena from the US Attorney's Office for the Eastern District of New York issued pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), which seeks documents and information related to UBS's RMBS business from 2005 through 2007. In 2015, the Eastern District of New York identified a number of transactions that are the focus of their inquiry, and has subsequently provided a revised list of transactions. We have provided and continue to provide information. UBS continues to respond to the FIRREA subpoena and to subpoenas from the New York State Attorney General and other state attorneys general relating to its RMBS business. In addition, UBS has also been responding to inquiries from both the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) (who is working in conjunction with the US Attorney's Office for Connecticut and the DOJ) and the SEC relating to trading practices in connection with purchases and sales of mortgage-backed securities in the secondary market from 2009 through 2014. We are cooperating with the authorities in these matters.

**Note 14 Provisions and contingent liabilities (continued)**

Our balance sheet at 30 June 2017 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier (CSSF). Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds now face severe losses, and the Luxembourg funds are in liquidation. The last reported net asset value of the two Luxembourg funds before revelation of the Madoff scheme was approximately USD 1.7 billion in the aggregate although that figure likely includes fictitious profit reported by BMIS. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members. UBS Europe SE, Luxembourg branch, and certain other UBS subsidiaries are responding to inquiries by Luxembourg investigating authorities, without, however, being named as parties in those investigations.

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims on behalf of the funds against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees. The amounts claimed are approximately EUR 890 million and EUR 305 million, respectively. The liquidators have filed supplementary claims for amounts that the funds may possibly be held liable to pay the trustee for the liquidation of BMIS (BMIS Trustee). These amounts claimed by the liquidator are approximately EUR 564 million and EUR 370 million, respectively.

In addition, a large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff scheme. The majority of these cases are pending in Luxembourg, where appeals were filed by the claimants against the 2010 decisions of the court in which the claims in a number of test cases were held to be inadmissible. The Luxembourg Court of Appeal has found in favor of UBS and dismissed all of these test case appeals, confirming that the claims are inadmissible. The Luxembourg Supreme Court has also dismissed a further appeal brought by the claimant in one of the test cases.

In the US, the BMIS Trustee filed claims in 2010 against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2 billion. Following a motion by UBS, in 2011, the SDNY dismissed all of the BMIS Trustee's claims other than claims for recovery of fraudulent conveyances and preference payments that were allegedly transferred to UBS on the ground that the BMIS Trustee lacks standing to bring such claims. In 2013, the Second Circuit affirmed the District Court's decision and, in 2014, the US Supreme Court denied the BMIS Trustee's petition seeking review of the Second Circuit ruling. In 2016, the bankruptcy court issued an opinion dismissing the remaining claims for recovery of subsequent transfers of fraudulent conveyances and preference payments on the ground that the US Bankruptcy Code does not apply to transfers that occurred outside the US, and judgment was entered in March 2017. The BMIS Trustee has appealed that ruling. In 2014, several claims, including a purported class action, were filed in the US by BMIS customers against UBS entities, asserting claims similar to the ones made by the BMIS Trustee, seeking unspecified damages. One claim was voluntarily withdrawn by the plaintiff. In 2015, following a motion by UBS, the SDNY dismissed the two remaining claims on the basis that the New York courts did not have jurisdiction to hear the claims against the UBS entities. The plaintiff in one of those claims has appealed the dismissal.

In Germany, certain clients of UBS are exposed to Madoff-managed positions through third-party funds and funds administered by UBS entities in Germany. A small number of claims have been filed with respect to such funds. In 2015, a court of appeal ordered UBS to pay EUR 49 million, plus interest of approximately EUR 15.3 million.

### 4. Puerto Rico

Declines since August 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) have led to multiple regulatory inquiries, as well as customer complaints and arbitrations with aggregate claimed damages of USD 2.1 billion, of which claims with aggregate claimed damages of USD 1.1 billion have been resolved through settlements, arbitration or withdrawal of the claim. The claims are filed by clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and / or who used their UBS account assets as collateral for UBS non-purpose loans; customer complaint and arbitration allegations include fraud, misrepresentation and unsuitability of the funds and of the loans. A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2015, defendants' motion to dismiss was denied. Defendants' requests for permission to appeal that ruling were denied by the Puerto Rico Court of Appeals and the Puerto Rico Supreme Court. In 2014, a federal class action complaint also was filed against various UBS entities, certain members of UBS PR senior management and the co-manager of certain of the funds, seeking damages for investor losses in the funds during the period from May 2008 through May 2014. In 2016, defendants' motion to dismiss was granted in part and denied in part. In 2015, a class action was filed in Puerto Rico state court against UBS PR seeking equitable relief in the form of a stay of any effort by UBS PR to collect on non-purpose loans it acquired from UBS Bank USA in December 2013 based on plaintiffs' allegation that the loans are not valid. The trial court denied defendant's motion to dismiss the action based on a forum selection clause in the loan agreements. The Puerto Rico Supreme Court reversed that decision and remanded the case back to the trial court for reconsideration.

In 2014, UBS reached a settlement with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico (OCFI) in connection with OCFI's examination of UBS's operations from January 2006 through September 2013, pursuant to which UBS is paying up to an aggregate of USD 7.7 million in investor education contributions and restitution.

In 2015, the SEC and the Financial Industry Regulatory Authority (FINRA) announced settlements with UBS PR of their separate investigations stemming from the 2013 market events. Without admitting or denying the findings in either matter, UBS PR agreed in the SEC settlement to pay USD 15 million and USD 18.5 million in the FINRA matter. We also understand that the DOJ is conducting a criminal inquiry into the impermissible reinvestment of non-purpose loan proceeds. We are cooperating with the authorities in this inquiry.

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of USD 3 billion of bonds by the System in 2008 and sought damages of over USD 800 million. In December 2016, the court granted the System's request to join the action as a plaintiff, but ordered that plaintiffs must file an amended complaint. In March 2017, the court denied defendants' motion to dismiss the amended complaint.

Also, in 2013, an SEC Administrative Law Judge dismissed a case brought by the SEC against two UBS executives, finding no violations. The charges had stemmed from the SEC's investigation of UBS's sale of closed-end funds in 2008 and 2009, which UBS settled in 2012. Beginning in 2012, two federal class action complaints, which were subsequently consolidated, were filed against various UBS entities, certain of the funds and certain members of UBS PR senior management, seeking damages for investor losses in the funds during the period from January 2008 through May 2012 based on allegations similar to those in the SEC action. In 2016, the court denied plaintiffs' motion for class certification. In March 2017, the US Court of Appeals for the First Circuit denied plaintiffs' petition seeking permission to bring an interlocutory appeal challenging the denial of their motion for class certification.

**Note 14 Provisions and contingent liabilities (continued)**

In 2015, certain agencies and public corporations of the Commonwealth of Puerto Rico (Commonwealth) defaulted on certain interest payments, in 2016, the Commonwealth defaulted on payments on its general obligation debt (GO Bonds), and in 2017 the Commonwealth defaulted on payments on its debt backed by the Commonwealth's Sales and Use Tax (COFINA Bonds) as well as on bonds issued by the Commonwealth's Employee Retirement System (ERS Bonds). The funds hold significant amounts of both COFINA and ERS Bonds and the defaults on interest payments are expected to adversely affect dividends from the funds. Executive orders of the Governor that have diverted funds to pay for essential services instead of debt payments and stayed any action to enforce creditors' rights on the Puerto Rico bonds continue to be in effect. In 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board is authorized to impose, and has imposed, a stay on exercise of creditors' rights. In May and June 2017, the oversight board placed the GO, COFINA and ERS Bonds, among others, into a bankruptcy-like proceeding under the supervision of a Federal District Judge as authorized by the oversight board's enabling statute. These events, further defaults, any further legislative action to create a legal means of restructuring Commonwealth obligations or to impose additional oversight on the Commonwealth's finances, or any restructuring of the Commonwealth's obligations may increase the number of claims against UBS concerning Puerto Rico securities, as well as potential damages sought.

Our balance sheet at 30 June 2017 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

### 5. Foreign exchange, LIBOR, and benchmark rates, and other trading practices

*Foreign exchange-related regulatory matters:* Following an initial media report in 2013 of widespread irregularities in the foreign exchange markets, UBS immediately commenced an internal review of its foreign exchange business, which includes our precious metals and related structured products businesses. Since then, various authorities have commenced investigations concerning possible manipulation of foreign exchange markets, including FINMA, the Swiss Competition Commission (WEKO), the DOJ, the SEC, the US Commodity Futures Trading Commission (CFTC), the Board of Governors of the Federal Reserve System (Federal Reserve Board), the California State Attorney General, the UK Financial Conduct Authority (FCA) (to which certain responsibilities of the UK Financial Services Authority (FSA) have passed), the UK Serious Fraud Office (SFO), the Australian Securities and Investments Commission (ASIC), the Hong Kong Monetary Authority (HKMA), the Korea Fair Trade Commission (KFTC) and the Brazil Competition Authority (CADE). In addition, WEKO is, and a number of other authorities reportedly are, investigating potential manipulation of precious metals prices.

In 2014, UBS reached settlements with the FCA and the CFTC in connection with their foreign exchange investigations, and FINMA issued an order concluding its formal proceedings with respect to UBS relating to its foreign exchange and precious metals businesses. In 2015, the Federal Reserve Board and the Connecticut Department of Banking issued an Order to Cease and Desist and Order of Assessment of a Civil Monetary Penalty Issued upon Consent (Federal Reserve Order) to UBS AG.

In 2015, the DOJ's Criminal Division (Criminal Division) terminated the December 2012 Non-Prosecution Agreement (NPA) with UBS AG related to UBS's submissions of benchmark interest rates. As a result, UBS AG entered into a plea agreement with the Criminal Division pursuant to which UBS AG pleaded guilty to a one-count criminal information filed in the US District Court for the District of Connecticut charging UBS AG with one count of wire fraud in violation of 18 USC Sections 1343 and 2. Sentencing occurred in January 2017. Under the plea agreement, UBS AG has paid a USD 203 million fine and is subject to a three-year term of probation starting on the sentencing date. The criminal information charges that, between approximately 2001 and 2010, UBS AG engaged in a scheme to defraud counterparties to interest rate derivatives transactions by manipulating benchmark interest rates, including Yen LIBOR. The Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA in certain foreign exchange market transactions.

We have ongoing obligations to cooperate with these authorities and to undertake certain remediation, including actions to improve UBS's processes and controls.

**Note 14 Provisions and contingent liabilities (continued)**

UBS has been granted conditional leniency or conditional immunity by the Antitrust Division of the DOJ (Antitrust Division) from prosecution for EUR / USD collusion and entered into a non-prosecution agreement covering other currency pairs. As a result, UBS AG will not be subject to prosecutions, fines or other sanctions for antitrust law violations by the Antitrust Division, subject to UBS AG's continuing cooperation. However, the conditional leniency and conditional immunity grant does not bar government agencies from asserting other claims and imposing sanctions against UBS AG. UBS has also been granted conditional immunity by authorities in certain jurisdictions, including WEKO, in connection with potential competition law violations relating to foreign exchange and precious metals businesses and, as a result, will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in those jurisdictions, subject to UBS AG's continuing cooperation as the leniency applicant.

Investigations relating to foreign exchange and precious metals matters by numerous authorities, including the CFTC, remain ongoing notwithstanding these resolutions.

*Foreign exchange-related civil litigation:* Putative class actions have been filed since November 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. They allege collusion by the defendants and assert claims under the antitrust laws and for unjust enrichment. In 2015, additional putative class actions were filed in federal court in New York against UBS and other banks on behalf of a putative class of persons who entered into or held any foreign exchange futures contracts and options on foreign exchange futures contracts since 1 January 2003. The complaints assert claims under the Commodity Exchange Act (CEA) and the US antitrust laws. In 2015, a consolidated complaint was filed on behalf of both putative classes of persons covered by the US federal court class actions described above. UBS has entered into a settlement agreement that would resolve all of these US federal court class actions. The agreement, which has been preliminarily approved by the court and is subject to final court approval, requires, among other things, that UBS pay an aggregate of USD 141 million and provide cooperation to the settlement classes.

A putative class action has been filed in federal court in New York against UBS and other banks on behalf of participants, beneficiaries and named fiduciaries of plans qualified under the Employee Retirement Income Security Act of 1974 (ERISA) for whom a defendant bank provided foreign currency exchange transactional services, exercised discretionary authority or discretionary control over management of such ERISA plan, or authorized or permitted the execution of any foreign currency exchange transactional services involving such plan's assets. The complaint asserts claims under ERISA. The parties filed a stipulation to dismiss the case with prejudice. The plaintiffs have appealed the dismissal. The appeals court heard oral argument in June 2017.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of a putative class of persons and businesses in the US who directly purchased foreign currency from the defendants and their co-conspirators for their own end use. That action has been transferred to federal court in New York. In March 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint.

In 2016, a putative class action was filed in federal court in New York against UBS and numerous other banks on behalf of a putative class of persons and entities who had indirectly purchased FX instruments from a defendant or co-conspirator in the US. The complaint asserts claims under federal and state antitrust laws. In response to defendants' motion to dismiss, plaintiffs agreed to dismiss their complaint. In April and June 2017, two new putative class actions were filed in federal court in New York against UBS and numerous other banks on behalf of different proposed classes of indirect purchasers of currency, and a consolidated complaint was filed on 30 June 2017.

In 2015, UBS was added to putative class actions pending against other banks in federal court in New York and other jurisdictions on behalf of putative classes of persons who had bought or sold physical precious metals and various precious metal products and derivatives. The complaints in these lawsuits assert claims under the antitrust laws and the CEA, and other claims. In October 2016, the court in New York granted UBS's motions to dismiss the putative class actions relating to gold and silver. Plaintiffs in those cases sought to amend their complaints to add new allegations about UBS, which the court granted. In March 2017, the court in New York granted UBS's motion to dismiss the platinum and palladium action. In May 2017, plaintiffs filed an amended complaint that did not allege claims against UBS.

*LIBOR and other benchmark-related regulatory matters:* Numerous government agencies, including the SEC, the CFTC, the DOJ, the FCA, the SFO, the Monetary Authority of Singapore (MAS), the HKMA, FINMA, the various state attorneys general in the US and competition authorities in various jurisdictions have conducted or are continuing to conduct investigations regarding submissions with respect to LIBOR and other benchmark rates. These investigations focus on whether there were improper attempts by UBS, among others, either acting on our own or together with others, to manipulate LIBOR and other benchmark rates at certain times.

**Note 14 Provisions and contingent liabilities (continued)**

In 2012, UBS reached settlements with the FSA, the CFTC and the Criminal Division of the DOJ in connection with their investigations of benchmark interest rates. At the same time, FINMA issued an order concluding its formal proceedings with respect to UBS relating to benchmark interest rates. UBS has paid a total of CHF 1.4 billion in fines and disgorgement in connection with these resolutions. UBS Securities Japan Co. Ltd. (UBSSJ) entered into a plea agreement with the DOJ under which it entered a plea to one count of wire fraud relating to the manipulation of certain benchmark interest rates, including Yen LIBOR. UBS entered into an NPA with the DOJ, which (along with the plea agreement) covered conduct beyond the scope of the conditional leniency / immunity grants described below. Under the NPA, UBS agreed, among other things, that for two years from 18 December 2012 it would not commit any US crime and would advise the DOJ of any potentially criminal conduct by UBS or any of its employees relating to violations of US laws concerning fraud or securities and commodities markets. The term of the NPA was extended by one year to 18 December 2015. In 2015, the Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA.

In 2014, UBS reached a settlement with the European Commission (EC) regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and paid a EUR 12.7 million fine, which was reduced to this level based in part on UBS's cooperation with the EC. In 2016, UBS reached a settlement with WEKO regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and received full immunity from fines. The MAS, HKMA and the Japan Financial Services Agency have also resolved investigations of UBS (and in some cases, other banks). We have ongoing obligations to cooperate with the authorities with whom we have reached resolutions and to undertake certain remediation with respect to benchmark interest rate submissions.

Investigations by the CFTC, ASIC and other governmental authorities remain ongoing notwithstanding these resolutions.

UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO, in connection with potential antitrust or competition law violations related to submissions for Yen LIBOR and Euroyen TIBOR. As a result of these conditional grants, UBS will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in the jurisdictions where we have conditional immunity in connection with the matters covered by the conditional grants, subject to our continuing cooperation as leniency applicant. However, since the Secretariat of WEKO has asserted that UBS does not qualify for full immunity, UBS has been unable to reach a settlement with WEKO, and therefore the investigation will continue. Furthermore, the conditional leniency and conditional immunity grants we have received do not bar government agencies from asserting other claims and imposing sanctions against us. In addition, as a result of the conditional leniency agreement with the DOJ, we are eligible for a limit on liability to actual rather than treble damages were damages to be awarded in any civil antitrust action under US law based on conduct covered by the agreement and for relief from potential joint and several liability in connection with such civil antitrust action, subject to our satisfying the DOJ and the court presiding over the civil litigation of our cooperation. The conditional leniency and conditional immunity grants do not otherwise affect the ability of private parties to assert civil claims against us.

*LIBOR and other benchmark-related civil litigation:* A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. All of the complaints allege manipulation, through various means, of various benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, USD and SGD SIBOR and SOR, Australian BBSW and USD ISDAFIX, and seek unspecified compensatory and other damages under varying legal theories.

In 2013, the US district court in the USD LIBOR action dismissed the federal antitrust and racketeering claims of certain USD LIBOR plaintiffs and a portion of their claims brought under the CEA and state common law. Certain plaintiffs appealed the decision to the Second Circuit, which, in 2016, vacated the district court's ruling finding no antitrust injury and remanded the case back to the district court for a further determination on whether plaintiffs have antitrust standing. In December 2016, the district court again dismissed plaintiffs' antitrust claims, this time for lack of personal jurisdiction over UBS and other foreign banks. In 2014, the court in one of the Euroyen TIBOR lawsuits dismissed certain of the plaintiff's claims, including federal antitrust claims. In 2015, the same court dismissed plaintiff's federal racketeering claims and affirmed its previous dismissal of plaintiff's antitrust claims. In 2017, the court also dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds. Also in 2017, the courts in the EURIBOR and the SIBOR and SOR lawsuits dismissed the cases as to UBS and certain other foreign defendants for lack of personal jurisdiction. UBS and other defendants in other lawsuits including those related to CHF LIBOR, GBP LIBOR and Australian BBSW have filed motions to dismiss. In 2016, UBS entered into an agreement with representatives of a class of bondholders to settle their USD LIBOR class action. The agreement has received preliminary court approval and remains subject to final approval.

**Note 14 Provisions and contingent liabilities (continued)**

Since September 2014, putative class actions have been filed in federal court in New York and New Jersey against UBS and other financial institutions, among others, on behalf of parties who entered into interest rate derivative transactions linked to ISDAFIX. The complaints, which have since been consolidated into an amended complaint, allege that the defendants conspired to manipulate ISDAFIX rates from 1 January 2006 through June 2013, in violation of US antitrust laws and certain state laws, and seek unspecified compensatory damages, including treble damages. On 12 July 2017, the court overseeing the ISDAFIX class action preliminarily approved a settlement agreement between UBS AG and the plaintiffs, whereby UBS AG agreed to pay USD 14 million to settle the case in its entirety.

*Government bonds:* Putative class actions have been filed in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. The complaints generally allege that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction. They assert claims under the antitrust laws and the CEA and for unjust enrichment. The cases have been consolidated in the SDNY. Following filing of these complaints, UBS and reportedly other banks are responding to investigations and requests for information from various authorities regarding US Treasury securities and other government bond trading practices. As a result of its review to date, UBS has taken appropriate action.

With respect to additional matters and jurisdictions not encompassed by the settlements and order referred to above, our balance sheet at 30 June 2017 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver.

FINMA has issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and may continue to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among others, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

Our balance sheet at 30 June 2017 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 7. Banco UBS Pactual tax indemnity

Pursuant to the 2009 sale of Banco UBS Pactual S.A. (Pactual) by UBS to BTG Investments, LP (BTG), BTG has submitted contractual indemnification claims that UBS estimates amount to BRL 2.7 billion, including interest and penalties, which is net of liabilities retained by BTG. The claims pertain principally to several tax assessments issued by the Brazilian tax authorities against Pactual relating to the period from December 2006 through March 2009, when UBS owned Pactual. These assessments are being challenged in administrative and judicial proceedings. The majority of these assessments relate to the deductibility of goodwill amortization in connection with UBS's 2006 acquisition of Pactual and payments made to Pactual employees through various profit-sharing plans. In 2015, an intermediate administrative court issued a decision that was largely in favor of the tax authority with respect to the goodwill amortization assessment. In 2016, the highest level of the administrative court agreed to review this decision on a number of the significant issues.

### 8. Investigation of UBS's role in initial public offerings in Hong Kong

The Hong Kong Securities and Futures Commission (SFC) has been conducting investigations into UBS's role as a sponsor of certain initial public offerings listed on the Hong Kong Stock Exchange. In 2016, the SFC informed UBS that it intends to commence action against UBS and certain UBS employees with respect to sponsorship work in those offerings, which could result in financial ramifications for UBS, including fines and obligations to pay investor compensation, and suspension of UBS's ability to provide corporate finance advisory services in Hong Kong for a period of time. In January 2017, a writ was filed by the SFC with Hong Kong's High Court in which UBS is named as one of six defendants from whom the SFC is seeking compensation in an unspecified amount for losses incurred by certain shareholders of China Forestry Holdings Company Limited, for whom UBS acted as a sponsor in connection with their 2009 listing application.

## Note 15 Guarantees, commitments and forward starting transactions

The table below shows the maximum irrevocable amount of guarantees, commitments and forward starting transactions.

| | 30.6.17 | | | 31.3.17 | | | 31.12.16 | | |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Gross | Sub-participations | Net | Gross | Sub-participations | Net | Gross | Sub-participations | Net |
| **Guarantees** | | | | | | | | | |
| Credit guarantees and similar instruments | 6,411 | (390) | 6,021 | 6,595 | (427) | 6,168 | 6,447 | (424) | 6,023 |
| Performance guarantees and similar instruments | 3,229 | (654) | 2,575 | 3,117 | (674) | 2,443 | 3,190 | (696) | 2,494 |
| Documentary credits | 6,198 | (1,611) | 4,587 | 7,130 | (1,672) | 5,458 | 7,074 | (1,761) | 5,313 |
| **Total guarantees** | 15,838 | (2,656) | 13,182 | 16,842 | (2,773) | 14,069 | 16,711 | (2,881) | 13,830 |
| **Loan commitments** | 42,222 | (1,349) | 40,874 | 46,063 | (1,460) | 44,603 | 54,430 | (1,513) | 52,917 |
| **Forward starting transactions**[1] | | | | | | | | | |
| Reverse repurchase agreements | 25,218 | | | 25,136 | | | 10,178 | | |
| Securities borrowing agreements | 183 | | | 55 | | | 36 | | |
| Repurchase agreements | 20,890 | | | 18,124 | | | 5,984 | | |

1 Cash to be paid in the future by either UBS or the counterparty.

## Note 16 Changes in organization and disposals

### Restructuring expenses

Restructuring expenses arise from programs that materially change either the scope of business that the Group engages in or the manner in which such business is conducted. Restructuring expenses are necessary to effect such programs and include items such as severance and other personnel-related expenses, duplicate headcount costs, impairment and accelerated depreciation of assets, contract termination costs, consulting fees, and related infrastructure and system costs. These costs are presented in the income statement according to the underlying nature of the expense.

**Net restructuring expenses by business division and Corporate Center unit**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| Wealth Management | 109 | 88 | 86 | 197 | 165 |
| Wealth Management Americas | 25 | 22 | 38 | 47 | 71 |
| Personal & Corporate Banking | 23 | 19 | 31 | 42 | 55 |
| Asset Management | 23 | 20 | 34 | 43 | 54 |
| Investment Bank | 75 | 78 | 163 | 152 | 280 |
| Corporate Center | 3 | 17 | 25 | 20 | 19 |
| *of which: Services* | *0* | *15* | *20* | *14* | *13* |
| *of which: Group ALM* | *1* | *0* | *0* | *1* | *0* |
| *of which: Non-core and Legacy Portfolio* | *2* | *2* | *5* | *4* | *6* |
| Total net restructuring expenses | 258 | 244 | 377 | 502 | 642 |
| *of which: personnel expenses* | *117* | *116* | *192* | *233* | *320* |
| *of which: general and administrative expenses* | *141* | *124* | *185* | *264* | *322* |
| *of which: depreciation and impairment of property, equipment and software* | *0* | *4* | *0* | *4* | *0* |
| *of which: amortization and impairment of intangible assets* | *0* | *0* | *0* | *0* | *0* |

**Net restructuring expenses by personnel expense category**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| Salaries and variable compensation | 109 | 103 | 200 | 212 | 315 |
| Contractors | 13 | 13 | 16 | 26 | 28 |
| Social security | 2 | 2 | 1 | 4 | 3 |
| Pension and other post-employment benefit plans | (10) | (4) | (30) | (14) | (34) |
| Other personnel expenses | 2 | 2 | 4 | 5 | 8 |
| Total net restructuring expenses: personnel expenses | 117 | 116 | 192 | 233 | 320 |

**Net restructuring expenses by general and administrative expense category**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| Occupancy | 22 | 19 | 41 | 40 | 70 |
| Rent and maintenance of IT and other equipment | 26 | 29 | 34 | 55 | 44 |
| Administration | 5 | 3 | 3 | 8 | 6 |
| Travel and entertainment | 3 | 2 | 5 | 6 | 8 |
| Professional fees | 41 | 26 | 36 | 68 | 70 |
| Outsourcing of IT and other services | 45 | 44 | 74 | 89 | 148 |
| Other[1] | (1) | 0 | (8) | (1) | (25) |
| Total net restructuring expenses: general and administrative expenses | 141 | 124 | 185 | 264 | 322 |

1 Mainly comprised of onerous real estate lease contracts.

## Note 16 Changes in organization and disposals (continued)

### Sale of subsidiaries and businesses

In the second quarter of 2017, UBS completed the sale of a life insurance subsidiary within Wealth Management. Prior to completion of the sale, the assets and liabilities of this business were presented as a disposal group held for sale within *Other assets* and *Other liabilities* (31 March 2017: CHF 5.1 billion and CHF 5.1 billion, respectively; 31 December 2016: CHF 5.1 billion and CHF 5.2 billion, respectively). The completion of the sale did not have a material effect on the results of Wealth Management in the second quarter of 2017.

## Note 17 Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of UBS's foreign operations into Swiss francs.

| | Spot rate | | | | Average rate[1] | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | As of | | | | For the quarter ended | | | Year-to-date | |
| | 30.6.17 | 31.3.17 | 31.12.16 | 30.6.16 | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| 1 USD | 0.96 | 1.00 | 1.02 | 0.98 | 0.97 | 1.00 | 0.98 | 0.99 | 0.99 |
| 1 EUR | 1.10 | 1.07 | 1.07 | 1.08 | 1.09 | 1.07 | 1.10 | 1.08 | 1.10 |
| 1 GBP | 1.25 | 1.25 | 1.26 | 1.30 | 1.26 | 1.25 | 1.37 | 1.26 | 1.39 |
| 100 JPY | 0.85 | 0.90 | 0.87 | 0.95 | 0.87 | 0.89 | 0.92 | 0.88 | 0.89 |

1 Monthly income statement items of foreign operations with a functional currency other than Swiss franc are translated with month-end rates into Swiss francs. Disclosed average rates for a quarter represent an average of three month-end rates, weighted according to the income and expense volumes of all foreign operations of the Group with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for the Group.

## Appendix 7 – Excerpts from the UBS AG Second Quarter 2017 report

It should be noted that the term "pro-forma" as used in this Appendix 7 does not refer to the term "pro forma financial information" within the meaning of Regulation (EC) 809/2004.

# UBS AG interim consolidated financial statements (unaudited)

## Income statement

| | | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| Interest income | | 3,590 | 3,392 | 3,548 | 6 | 1 | 6,982 | 6,953 |
| Interest expense | | (2,186) | (1,704) | (2,390) | 28 | (9) | (3,890) | (4,088) |
| Net interest income | | 1,404 | 1,688 | 1,157 | (17) | 21 | 3,092 | 2,866 |
| Credit loss (expense) / recovery | | (46) | 0 | (7) | | 557 | (46) | (9) |
| Net interest income after credit loss expense | | 1,358 | 1,688 | 1,151 | (20) | 18 | 3,046 | 2,857 |
| Net fee and commission income | 3 | 4,296 | 4,371 | 4,087 | (2) | 5 | 8,667 | 8,208 |
| Net trading income | | 1,459 | 1,441 | 1,891 | 1 | (23) | 2,900 | 2,902 |
| Other income | 4 | 285 | 60 | 270 | 375 | 6 | 345 | 288 |
| Total operating income | | 7,398 | 7,560 | 7,399 | (2) | 0 | 14,958 | 14,254 |
| Personnel expenses | 5 | 3,611 | 4,044 | 3,953 | (11) | (9) | 7,654 | 7,852 |
| General and administrative expenses | 6 | 2,111 | 1,601 | 1,727 | 32 | 22 | 3,712 | 3,438 |
| Depreciation and impairment of property, equipment and software | | 220 | 253 | 239 | (13) | (8) | 473 | 481 |
| Amortization and impairment of intangible assets | | 16 | 21 | 24 | (24) | (33) | 37 | 47 |
| Total operating expenses | | 5,957 | 5,919 | 5,942 | 1 | 0 | 11,876 | 11,818 |
| Operating profit / (loss) before tax | | 1,441 | 1,641 | 1,457 | (12) | (1) | 3,082 | 2,436 |
| Tax expense / (benefit) | 7 | 317 | 364 | 369 | (13) | (14) | 681 | 634 |
| Net profit / (loss) | | 1,124 | 1,277 | 1,088 | (12) | 3 | 2,401 | 1,802 |
| Net profit / (loss) attributable to preferred noteholders | | 0 | 46 | 78 | (100) | (100) | 46 | 78 |
| Net profit / (loss) attributable to non-controlling interests | | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| **Net profit / (loss) attributable to shareholders** | | 1,123 | 1,231 | 1,009 | (9) | 11 | 2,354 | 1,723 |

## Statement of comprehensive income

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| **Comprehensive income attributable to shareholders** | | | | | |
| Net profit / (loss) | 1,123 | 1,231 | 1,009 | 2,354 | 1,723 |
| Other comprehensive income that may be reclassified to the income statement | | | | | |
| Foreign currency translation | | | | | |
| Foreign currency translation movements, before tax | (992) | (373) | 311 | (1,365) | (642) |
| Foreign exchange amounts reclassified to the income statement from equity | 21 | 4 | 26 | 25 | 149 |
| Income tax relating to foreign currency translation movements | 1 | 2 | (2) | 3 | 3 |
| Subtotal foreign currency translation, net of tax | (969) | (368) | 335 | (1,337) | (491) |
| Financial assets available for sale | | | | | |
| Net unrealized gains / (losses) on financial assets available for sale, before tax | 10 | 44 | 116 | 53 | 369 |
| Impairment charges reclassified to the income statement from equity | (1) | 14 | 3 | 13 | 3 |
| Realized gains reclassified to the income statement from equity | (135) | (8) | (166) | (143) | (255) |
| Realized losses reclassified to the income statement from equity | 5 | 2 | 5 | 7 | 19 |
| Income tax relating to net unrealized gains / (losses) on financial assets available for sale | 6 | (8) | 3 | (2) | (44) |
| Subtotal financial assets available for sale, net of tax | (115) | 43 | (39) | (72) | 93 |
| Cash flow hedges | | | | | |
| Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax | 165 | (30) | 502 | 136 | 1,445 |
| Net (gains) / losses reclassified to the income statement from equity | (211) | (220) | (274) | (431) | (577) |
| Income tax relating to cash flow hedges | 11 | 52 | (47) | 63 | (174) |
| Subtotal cash flow hedges, net of tax | (35) | (198) | 181 | (233) | 694 |
| Total other comprehensive income that may be reclassified to the income statement, net of tax | (1,119) | (522) | 476 | (1,641) | 296 |
| Other comprehensive income that will not be reclassified to the income statement | | | | | |
| Defined benefit plans | | | | | |
| Gains / (losses) on defined benefit plans, before tax | 115 | 49 | (198) | 164 | (389) |
| Income tax relating to defined benefit plans | 0 | 2 | (4) | 2 | 8 |
| Subtotal defined benefit plans, net of tax | 115 | 51 | (202) | 166 | (381) |
| Own credit on financial liabilities designated at fair value | | | | | |
| Gains / (losses) from own credit on financial liabilities designated at fair value, before tax | (72) | (181) | (173) | (252) | (105) |
| Income tax relating to own credit on financial liabilities designated at fair value | (1) | 0 | 16 | (1) | 0 |
| Subtotal own credit on financial liabilities designated at fair value, net of tax | (73) | (181) | (157) | (254) | (105) |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 42 | (129) | (359) | (87) | (486) |
| Total other comprehensive income | (1,077) | (652) | 118 | (1,729) | (190) |
| Total comprehensive income attributable to shareholders | 46 | 579 | 1,127 | 625 | 1,533 |

## Statement of comprehensive income (continued)

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| **Comprehensive income attributable to preferred noteholders** | | | | | |
| Net profit / (loss) | 0 | 46 | 78 | 46 | 78 |
| Other comprehensive income that will not be reclassified to the income statement | | | | | |
| Foreign currency translation movements, before tax | 16 | (2) | 328 | 14 | 279 |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | 16 | (2) | 328 | 14 | 279 |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 16 | (2) | 328 | 14 | 279 |
| Total comprehensive income attributable to preferred noteholders | 16 | 44 | 406 | 60 | 357 |
| **Comprehensive income attributable to non-controlling interests** | | | | | |
| Net profit / (loss) | 1 | 1 | 1 | 1 | 1 |
| Other comprehensive income that will not be reclassified to the income statement | | | | | |
| Foreign currency translation movements, before tax | (2) | 2 | 0 | (1) | 0 |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | (2) | 2 | 0 | (1) | 0 |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | (2) | 2 | 0 | (1) | 0 |
| Total comprehensive income attributable to non-controlling interests | (2) | 2 | 1 | 1 | 1 |
| **Total comprehensive income** | | | | | |
| Net profit / (loss) | 1,124 | 1,277 | 1,088 | 2,401 | 1,802 |
| Other comprehensive income | (1,064) | (651) | 446 | (1,715) | 88 |
| *of which: other comprehensive income that may be reclassified to the income statement* | *(1,119)* | *(522)* | *476* | *(1,641)* | *296* |
| *of which: other comprehensive income that will not be reclassified to the income statement* | *55* | *(129)* | *(30)* | *(74)* | *(207)* |
| Total comprehensive income | 60 | 626 | 1,535 | 686 | 1,890 |

## Balance sheet

| | | | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.6.17 | 31.3.17 | 31.12.16 | 31.3.17 | 31.12.16 |
| **Assets** | | | | | | |
| Cash and balances with central banks | | 100,071 | 108,931 | 107,767 | (8) | (7) |
| Due from banks | | 14,390 | 14,191 | 13,125 | 1 | 10 |
| Cash collateral on securities borrowed | | 15,081 | 18,512 | 15,111 | (19) | 0 |
| Reverse repurchase agreements | | 75,324 | 77,004 | 66,246 | (2) | 14 |
| Trading portfolio assets | 8 | 107,738 | 107,345 | 96,661 | 0 | 11 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | | *32,679* | *30,346* | *30,260* | *8* | *8* |
| Positive replacement values | 8, 9 | 121,910 | 121,549 | 158,411 | 0 | (23) |
| Cash collateral receivables on derivative instruments | 9 | 22,687 | 22,522 | 26,664 | 1 | (15) |
| Loans | | 310,366 | 310,754 | 307,004 | 0 | 1 |
| Financial assets designated at fair value | 8 | 51,436 | 48,760 | 65,024 | 5 | (21) |
| Financial assets available for sale | 8 | 14,114 | 16,235 | 15,676 | (13) | (10) |
| Financial assets held to maturity | | 8,710 | 8,962 | 9,289 | (3) | (6) |
| Investments in associates | | 972 | 977 | 963 | (1) | 1 |
| Property, equipment and software | | 7,716 | 8,327 | 8,297 | (7) | (7) |
| Goodwill and intangible assets | | 6,226 | 6,458 | 6,556 | (4) | (5) |
| Deferred tax assets | | 12,303 | 12,914 | 13,144 | (5) | (6) |
| Other assets | 10 | 22,717 | 27,482 | 25,412 | (17) | (11) |
| Total assets | | 891,763 | 910,924 | 935,353 | (2) | (5) |

## Balance sheet (continued)

| | | | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.6.17 | 31.3.17 | 31.12.16 | 31.3.17 | 31.12.16 |
| **Liabilities** | | | | | | |
| Due to banks | | 11,598 | 8,747 | 10,645 | 33 | 9 |
| Cash collateral on securities lent | | 2,538 | 3,067 | 2,818 | (17) | (10) |
| Repurchase agreements | | 11,286 | 10,621 | 6,612 | 6 | 71 |
| Trading portfolio liabilities | 8 | 25,321 | 28,576 | 22,825 | (11) | 11 |
| Negative replacement values | 8, 9 | 119,027 | 119,964 | 153,810 | (1) | (23) |
| Cash collateral payables on derivative instruments | 9 | 31,520 | 29,875 | 35,472 | 6 | (11) |
| Due to customers | | 438,309 | 455,386 | 450,199 | (4) | (3) |
| Financial liabilities designated at fair value | 8, 11 | 54,215 | 56,640 | 55,017 | (4) | (1) |
| Debt issued | 12 | 90,757 | 83,563 | 78,998 | 9 | 15 |
| Provisions | 13 | 3,167 | 3,752 | 4,169 | (16) | (24) |
| Other liabilities | 10 | 51,596 | 58,064 | 60,443 | (11) | (15) |
| **Total liabilities** | | 839,335 | 858,255 | 881,009 | (2) | (5) |
| **Equity** | | | | | | |
| Share capital | | 386 | 386 | 386 | 0 | 0 |
| Share premium | | 26,953 | 27,254 | 29,505 | (1) | (9) |
| Retained earnings | | 30,532 | 29,367 | 28,265 | 4 | 8 |
| Other comprehensive income recognized directly in equity, net of tax | | (6,136) | (5,017) | (4,494) | 22 | 37 |
| **Equity attributable to shareholders** | | 51,735 | 51,990 | 53,662 | 0 | (4) |
| Equity attributable to preferred noteholders | | 657 | 641 | 642 | 2 | 2 |
| Equity attributable to non-controlling interests | | 37 | 38 | 40 | (3) | (8) |
| **Total equity** | | 52,428 | 52,669 | 54,343 | 0 | (4) |
| **Total liabilities and equity** | | 891,763 | 910,924 | 935,353 | (2) | (5) |

## Statement of changes in equity

| *CHF million* | Share capital | Share premium | Retained earnings |
|---|---|---|---|
| **Balance as of 1 January 2016** | **386** | **29,477** | **29,433** |
| Issuance of share capital | | | |
| Premium on shares issued and warrants exercised | | | |
| Tax (expense) / benefit | | 6 | |
| Dividends | | | (3,434) |
| Preferred notes | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (1) | |
| Total comprehensive income for the period | | | 1,237 |
| *of which: net profit / (loss)* | | | *1,723* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | *(381)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | *(105)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | |
| **Balance as of 30 June 2016** | **386** | **29,483** | **27,235** |
| **Balance as of 1 January 2017** | 386 | 29,505 | 28,265 |
| Issuance of share capital | | | |
| Premium on shares issued and warrants exercised | | 6 | |
| Tax (expense) / benefit | | 5 | |
| Dividends | | (2,250) | |
| Preferred notes | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (313)[2] | |
| Total comprehensive income for the period | | | 2,267 |
| *of which: net profit / (loss)* | | | *2,354* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | *166* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | *(254)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | |
| **Balance as of 30 June 2017** | 386 | 26,953 | 30,532 |

1 Excludes defined benefit plans and own credit that are recorded directly in Retained earnings. 2 Includes a CHF 307 million reduction related to the transfer of shared services functions in Switzerland from UBS AG to UBS Business Solutions AG, a wholly owned subsidiary of UBS Group AG. Refer to "Note 15 Changes in organization and disposals" for more information.

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: foreign currency translation* | *of which: financial assets available for sale* | *of which: cash flow hedges* | Total equity attributable to shareholders | Preferred noteholders | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| **(4,047)** | *(5,857)* | *172* | *1,638* | **55,248** | **1,954** | **41** | **57,243** |
| | | | | 0 | | | 0 |
| | | | | 0 | | | 0 |
| | | | | 6 | | | 6 |
| | | | | (3,434) | (78) | (5) | (3,517) |
| | | | | 0 | (1,584) | | (1,584) |
| | | | | (1) | | 0 | 0 |
| 296 | *(491)* | *93* | *694* | 1,533 | 357 | 1 | 1,890 |
| | | | | *1,723* | *78* | *1* | *1,802* |
| *296* | *(491)* | *93* | *694* | *296* | | | *296* |
| | | | | *(381)* | | | *(381)* |
| | | | | *(105)* | | | *(105)* |
| | | | | *0* | *279* | *0* | *278* |
| **(3,752)** | *(6,348)* | *264* | *2,332* | **53,353** | **649** | **37** | **54,039** |
| | | | | | | | |
| (4,494) | *(5,564)* | *98* | *972* | 53,662 | 642 | 40 | 54,343 |
| | | | | 0 | | | 0 |
| | | | | 6 | | | 6 |
| | | | | 5 | | | 5 |
| | | | | (2,250) | (46) | (4) | (2,300) |
| | | | | 0 | 0 | | 0 |
| | | | | (313) | | 0 | (312) |
| (1,641) | *(1,337)* | *(72)* | *(233)* | 625 | 60 | 1 | 686 |
| | | | | *2,354* | *46* | *1* | *2,401* |
| *(1,641)* | *(1,337)* | *(72)* | *(233)* | *(1,641)* | | | *(1,641)* |
| | | | | *166* | | | *166* |
| | | | | *(254)* | | | *(254)* |
| | | | | *0* | *14* | *(1)* | *14* |
| (6,136) | *(6,902)* | *26* | *739* | 51,735 | 657 | 37 | 52,428 |

## Statement of cash flows

| | Year-to-date | |
|---|---|---|
| *CHF million* | 30.6.17 | 30.6.16 |
| **Cash flow from / (used in) operating activities** | | |
| Net profit / (loss) | 2,401 | 1,802 |
| **Non-cash items included in net profit and other adjustments:** | | |
| Depreciation and impairment of property, equipment and software | 473 | 481 |
| Amortization and impairment of intangible assets | 37 | 47 |
| Credit loss expense / (recovery) | 46 | 9 |
| Share of net profits of associates | (36) | (40) |
| Deferred tax expense / (benefit) | 257 | 243 |
| Net loss / (gain) from investing activities | 246 | (798) |
| Net loss / (gain) from financing activities | (307) | 6,781 |
| Other net adjustments | 674 | (573) |
| **Net change in operating assets and liabilities:** | | |
| Due from / to banks | 484 | 3,317 |
| Cash collateral on securities borrowed and reverse repurchase agreements | (11,218) | (13,109) |
| Cash collateral on securities lent and repurchase agreements | 4,650 | (1,832) |
| Trading portfolio and replacement values | (7,458) | 14,773 |
| Financial assets designated at fair value | 13,135 | (59,498) |
| Cash collateral on derivative instruments | 15 | (6,824) |
| Loans | (7,616) | 1,144 |
| Due to customers | (12,222) | 21,702 |
| Other assets, provisions and other liabilities | (6,345) | (6,955) |
| Income taxes paid, net of refunds | (685) | (207) |
| **Net cash flow from / (used in) operating activities** | (23,469) | (39,536) |
| **Cash flow from / (used in) investing activities** | | |
| Purchase of subsidiaries, associates and intangible assets | (5) | (23) |
| Disposal of subsidiaries, associates and intangible assets[1] | 95 | 72 |
| Purchase of property, equipment and software | (688) | (934) |
| Disposal of property, equipment and software | 23 | 193 |
| Purchase of financial assets available for sale | (4,729) | (7,363) |
| Disposal and redemption of financial assets available for sale | 6,150 | 51,112 |
| Net (purchase) / redemption of financial assets held to maturity | 168 | (4,878) |
| **Net cash flow from / (used in) investing activities** | 1,014 | 38,177 |

Table continues on the next page.

## Statement of cash flows (continued)

Table continued from previous page.

| | Year-to-date | |
|---|---|---|
| *CHF million* | 30.6.17 | 30.6.16 |
| **Cash flow from / (used in) financing activities** | | |
| Net short-term debt issued / (repaid) | 18,738 | 9,797 |
| Distributions paid on UBS AG shares | (2,250) | (3,434) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 24,829 | 18,857 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (23,407) | (17,365) |
| Dividends paid and repayments of preferred notes | (46) | (1,366) |
| Net changes in non-controlling interests | (5) | (5) |
| Net cash flow from / (used in) financing activities | 17,861 | 6,484 |
| **Total cash flow** | | |
| Cash and cash equivalents at the beginning of the period | 121,107 | 102,962 |
| Net cash flow from / (used in) operating, investing and financing activities | (4,594) | 5,125 |
| Effects of exchange rate differences on cash and cash equivalents | (1,502) | (1,293) |
| Cash and cash equivalents at the end of the period[2] | 115,010 | 106,795 |
| *of which: cash and balances with central banks* | *100,006* | *94,181* |
| *of which: due from banks* | *12,646* | *11,613* |
| *of which: money market paper[3]* | *2,358* | *1,001* |
| **Additional information** | | |
| Net cash flow from / (used in) operating activities includes: | | |
| Interest received in cash | 6,012 | 5,995 |
| Interest paid in cash | 3,650 | 3,416 |
| Dividends on equity investments, investment funds and associates received in cash[4] | 985 | 999 |

1 Includes dividends received from associates. 2 CHF 2,576 million and CHF 3,631 million of cash and cash equivalents (mainly reflected in Due from banks) were restricted as of 30 June 2017 and 30 June 2016, respectively. Refer to Note 23 in the Annual Report 2016 for more information. 3 Money market paper is included in the balance sheet under Trading portfolio assets, Financial assets available for sale and Financial assets designated at fair value. 4 Includes dividends received from associates reported within cash flow from / (used in) investing activities.

# Notes to the UBS AG interim consolidated financial statements (unaudited)

## Note 1 Basis of accounting

The consolidated financial statements (the Financial Statements) of UBS AG and its subsidiaries (together "UBS AG") are prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), and are presented in Swiss francs (CHF), which is also the functional currency of UBS AG's Head Office and its Swiss-based operations. These interim Financial Statements are prepared in accordance with IAS 34, *Interim Financial Reporting*.

In preparing these interim Financial Statements, the same accounting policies and methods of computation have been applied as in the UBS AG consolidated annual Financial Statements for the period ended 31 December 2016, except for the changes described below and in "Note 1 Basis of accounting" in the "Consolidated financial statements" section of the first quarter 2017 report. These interim Financial Statements are unaudited and should be read in conjunction with UBS AG's audited consolidated Financial Statements included in the Annual Report 2016. In the opinion of management, all necessary adjustments were made for a fair presentation of UBS AG's financial position, results of operations and cash flows.

Preparation of these interim Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities. These estimates and assumptions are based on the best available information. Actual results in the future could differ from such estimates, and such differences may be material to the Financial Statements. Revisions to estimates, based on regular reviews, are recognized in the period in which they occur. For more information on areas of estimation uncertainty considered to require critical judgment, refer to "Note 1a Significant accounting policies" in the "Consolidated financial statements" section of the Annual Report 2016.

### Classification of financial assets containing prepayment features with negative compensation under IFRS 9, *Financial Instruments*

In April 2017, the International Accounting Standards Board (IASB) issued the Exposure *Draft Prepayment Features with Negative Compensation*, which proposed an amendment to IFRS 9, *Financial Instruments* that would allow amortized cost accounting for instruments that provide for two-way compensation if a prepayment occurs. These features are common in Swiss private mortgages and corporate loans.

In July 2017, the IASB approved the amendment, subject to some refinements. UBS AG expects to early adopt the amendment and continue measuring Swiss private mortgages and corporate loans at amortized cost upon adoption of IFRS 9 on 1 January 2018.

### IFRIC 23, *Uncertainty over Income Tax Treatments*

In June 2017, the IASB issued IFRIC Interpretation 23, *Uncertainty over Income Tax Treatments* (IFRIC 23), which addresses how uncertain tax positions should be accounted for under IFRS. Under this interpretation, IFRIC 23 requires that, where acceptance of the tax treatment by the relevant tax authority is considered probable, it should be assumed as an accounting recognition matter that treatment of the item will ultimately be accepted. Therefore, no tax provision would be required in such cases. However, if acceptance of the tax treatment is not considered probable, the entity is required to reflect that uncertainty using an expected value (i.e., a probability-weighted approach) or the single most likely amount.

IFRIC 23 is mandatorily effective for accounting periods beginning on or after 1 January 2019, and any resulting change to the tax provisions should be recognized in retained earnings. UBS AG is in the process of carrying out a detailed review on the impacts arising from this interpretation, although it is not expected to have a significant effect on its financial statements.

## Note 2 Segment reporting

UBS AG's businesses are organized globally into five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank, all of which are supported by Corporate Center. The five business divisions qualify as reportable segments for the purpose of segment reporting and, together with Corporate Center and its units, reflect the management structure of UBS AG. Corporate Center – Non-core and Legacy Portfolio is managed and reported as a separate reportable segment within Corporate Center. Refer to "Note 1a item 2 Segment reporting" and "Note 2 Segment reporting" in the "Consolidated financial statements" section of the Annual Report 2016 for more information on UBS AG's reporting segments.

| | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center | | | UBS AG |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | | | | | | Services | Group ALM | Non-core and Legacy Portfolio | |
| **For the six months ended 30 June 2017** | | | | | | | | | |
| Net interest income | 1,000 | 764 | 940 | (15) | 452 | (155) | 97 | 10 | 3,092 |
| Non-interest income | 2,682 | 3,304 | 870 | 935 | 3,859 | 197 | 30 | 34 | 11,912 |
| Allocations from Group ALM | 129 | 61 | 103 | 9 | (174) | 60 | (139) | (50) | 0 |
| Income | 3,811 | 4,129 | 1,914 | 929 | 4,137 | 102 | (12) | (6) | 15,004 |
| Credit loss (expense) / recovery | (1) | (1) | (21) | 0 | (12) | 0 | 0 | (11) | (46) |
| Total operating income | 3,810 | 4,128 | 1,893 | 929 | 4,125 | 102 | (12) | (16) | 14,958 |
| Personnel expenses | 1,197 | 2,569 | 436 | 357 | 1,598 | 1,454 | 17 | 25 | 7,654 |
| General and administrative expenses | 265 | 341 | 136 | 109 | 298 | 2,568 | 7 | (12) | 3,712 |
| Services (to) / from CC and other BDs | 1,136 | 622 | 541 | 246 | 1,334 | (3,982) | (13) | 116 | 0 |
| *of which: services from CC – Services* | *1,091* | *612* | *586* | *266* | *1,286* | *(4,003)* | *65* | *97* | *0* |
| Depreciation and impairment of property, equipment and software | 1 | 1 | 6 | 1 | 5 | 460 | 0 | 0 | 473 |
| Amortization and impairment of intangible assets | 2 | 20 | 0 | 2 | 6 | 6 | 0 | 0 | 37 |
| Total operating expenses[1] | 2,601 | 3,553 | 1,119 | 716 | 3,241 | 506 | 12 | 129 | 11,876 |
| **Operating profit / (loss) before tax** | **1,210** | **575** | **774** | **213** | **884** | **(404)** | **(23)** | **(145)** | **3,082** |
| Tax expense / (benefit) | | | | | | | | | 681 |
| **Net profit / (loss)** | | | | | | | | | **2,401** |
| **As of 30 June 2017** | | | | | | | | | |
| **Total assets** | **114,087** | **63,491** | **137,382** | **12,700** | **232,956** | **22,171** | **254,940** | **54,035** | **891,763** |
| **For the six months ended 30 June 2016[2]** | | | | | | | | | |
| Net interest income | 954 | 652 | 957 | (17) | 140 | (162) | 350 | (8) | 2,866 |
| Non-interest income | 2,541 | 3,074 | 908 | 963 | 3,858 | 147 | (116) | 20 | 11,397 |
| Allocations from Group ALM | 207 | 44 | 180 | 5 | (116) | 36 | (319) | (37) | 0 |
| Income | 3,702 | 3,771 | 2,046 | 951 | 3,882 | 22 | (85) | (26) | 14,263 |
| Credit loss (expense) / recovery | (1) | (2) | 2 | 0 | (5) | 0 | 0 | (3) | (9) |
| Total operating income | 3,700 | 3,769 | 2,048 | 951 | 3,877 | 22 | (85) | (29) | 14,254 |
| Personnel expenses | 1,205 | 2,398 | 425 | 367 | 1,555 | 1,859 | 15 | 28 | 7,852 |
| General and administrative expenses | 278 | 296 | 122 | 116 | 398 | 2,100 | 8 | 120 | 3,438 |
| Services (to) / from CC and other BDs | 1,148 | 618 | 561 | 262 | 1,402 | (4,102) | (24) | 134 | 0 |
| *of which: services from CC – Services* | *1,107* | *611* | *609* | *274* | *1,349* | *(4,116)* | *55* | *110* | *0* |
| Depreciation and impairment of property, equipment and software | 1 | 1 | 8 | 1 | 13 | 458 | 0 | 0 | 481 |
| Amortization and impairment of intangible assets | 2 | 26 | 0 | 2 | 6 | 11 | 0 | 0 | 47 |
| Total operating expenses[1] | 2,635 | 3,340 | 1,116 | 748 | 3,374 | 324 | 0 | 282 | 11,818 |
| **Operating profit / (loss) before tax** | **1,066** | **429** | **932** | **203** | **503** | **(302)** | **(84)** | **(311)** | **2,436** |
| Tax expense / (benefit) | | | | | | | | | 634 |
| **Net profit / (loss)** | | | | | | | | | **1,802** |
| **As of 31 December 2016** | | | | | | | | | |
| **Total assets** | **115,539** | **65,882** | **139,945** | **12,026** | **242,388** | **23,813** | **267,275** | **68,485** | **935,353** |

1 Refer to Note 15 for information on restructuring expenses. 2 Figures in this table may differ from those originally published in quarterly and annual reports due to adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.

## Note 3 Net fee and commission income

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| Underwriting fees | 359 | 376 | 282 | (5) | 27 | 734 | 528 |
| *of which: equity underwriting fees* | *224* | *238* | *137* | *(6)* | *64* | *462* | *250* |
| *of which: debt underwriting fees* | *135* | *138* | *145* | *(2)* | *(7)* | *273* | *278* |
| M&A and corporate finance fees | 170 | 177 | 176 | (4) | (3) | 347 | 315 |
| Brokerage fees | 862 | 943 | 880 | (9) | (2) | 1,804 | 1,848 |
| Investment fund fees | 795 | 814 | 779 | (2) | 2 | 1,609 | 1,593 |
| Portfolio management and advisory fees | 2,107 | 2,038 | 1,968 | 3 | 7 | 4,145 | 3,934 |
| Other | 453 | 459 | 438 | (1) | 3 | 913 | 864 |
| **Total fee and commission income** | 4,745 | 4,807 | 4,523 | (1) | 5 | 9,552 | 9,083 |
| Brokerage fees paid | 179 | 166 | 192 | 8 | (7) | 344 | 390 |
| Other | 270 | 271 | 243 | 0 | 11 | 541 | 486 |
| **Total fee and commission expense** | 449 | 436 | 436 | 3 | 3 | 885 | 875 |
| **Net fee and commission income** | 4,296 | 4,371 | 4,087 | (2) | 5 | 8,667 | 8,208 |
| *of which: net brokerage fees* | *683* | *777* | *687* | *(12)* | *(1)* | *1,460* | *1,458* |

## Note 4 Other income

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| **Associates and subsidiaries** | | | | | | | |
| Net gains / (losses) from disposals of subsidiaries[1] | (18) | (4) | (49) | 350 | (63) | (22) | (172) |
| Share of net profits of associates | 17 | 19 | 22 | (11) | (23) | 36 | 40 |
| **Total** | (2) | 15 | (27) | | (93) | 14 | (132) |
| **Financial assets available for sale** | | | | | | | |
| Net gains / (losses) from disposals | 129 | 6 | 161 | | (20) | 136 | 237 |
| Impairment charges | 1 | (14) | (3) | | | (13) | (3) |
| **Total** | 131 | (8) | 158 | | (17) | 123 | 233 |
| Net income from properties (excluding net gains / (losses) from disposals)[2] | 6 | 6 | 7 | 0 | (14) | 12 | 14 |
| Net gains / (losses) from disposals of properties held for sale | 0 | 0 | 120 | | (100) | (1) | 120 |
| Net gains / (losses) from disposals of loans and receivables | (2) | 17 | 0 | | | 16 | (1) |
| Other | 152 | 30 | 12 | 407 | | 181 | 52 |
| **Total other income** | 285 | 60 | 270 | 375 | 6 | 345 | 288 |

1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to disposed foreign subsidiaries and branches. 2 Includes net rent received from third parties and net operating expenses.

## Note 5 Personnel expenses

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| Salaries and variable compensation | 2,125 | 2,434 | 2,505 | (13) | (15) | 4,559 | 4,845 |
| Wealth Management Americas: Financial advisor compensation[1] | 992 | 987 | 911 | 1 | 9 | 1,979 | 1,820 |
| Contractors | 72 | 93 | 117 | (23) | (38) | 164 | 218 |
| Social security | 166 | 198 | 155 | (16) | 7 | 364 | 336 |
| Pension and other post-employment benefit plans | 133 | 199 | 150 | (33) | (11) | 332 | 349 |
| Other personnel expenses | 123 | 133 | 114 | (8) | 8 | 256 | 284 |
| **Total personnel expenses**[2] | 3,611 | 4,044 | 3,953 | (11) | (9) | 7,654 | 7,852 |

1 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated on the basis of financial advisor productivity, firm tenure, assets and other variables. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. 2 Includes restructuring expenses. Refer to Note 15 for more information.

## Note 6 General and administrative expenses

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 1Q17 | 2Q16 | 30.6.17 | 30.6.16 |
| Occupancy | 208 | 216 | 218 | (4) | (5) | 423 | 449 |
| Rent and maintenance of IT and other equipment | 97 | 144 | 125 | (33) | (22) | 241 | 265 |
| Communication and market data services | 126 | 154 | 157 | (18) | (20) | 280 | 323 |
| Administration[1] | 1,005 | 222 | 203 | 353 | 395 | 1,227 | 403 |
| Marketing and public relations | 67 | 92 | 129 | (27) | (48) | 159 | 227 |
| Travel and entertainment | 97 | 86 | 111 | 13 | (13) | 183 | 227 |
| Professional fees | 253 | 253 | 322 | 0 | (21) | 506 | 598 |
| Outsourcing of IT and other services | 218 | 370 | 375 | (41) | (42) | 588 | 807 |
| Provisions for litigation, regulatory and similar matters[2] | 9 | 33 | 72 | (73) | (88) | 42 | 111 |
| Other | 31 | 30 | 15 | 3 | 107 | 62 | 28 |
| **Total general and administrative expenses[3]** | 2,111 | 1,601 | 1,727 | 32 | 22 | 3,712 | 3,438 |

1 Includes credits related to the UK bank levy (second quarter of 2017: CHF 46 million; first quarter of 2017: CHF 25 million). 2 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. Refer to Note 13 for more information. Also includes recoveries from third parties (second quarter of 2017: CHF 1 million; first quarter of 2017: CHF 1 million; second quarter of 2016: CHF 0 million). 3 Includes restructuring expenses. Refer to Note 15 for more information.

## Note 7 Income taxes

UBS AG recognized an income tax expense of CHF 317 million for the second quarter of 2017 compared with an income tax expense of CHF 369 million for the second quarter of 2016.

The current tax expense was CHF 188 million compared with CHF 218 million, approximately half of which was attributable to UBS Switzerland AG in both periods.

The deferred tax expense was CHF 129 million in the second quarter of 2017 compared with CHF 150 million in the second quarter of 2016, both mainly relating to the amortization of deferred tax assets previously recognized in relation to Swiss tax losses carried forward and deductible temporary differences to reflect their offset against profits for the quarter.

The interim Financial Statements have been prepared on the basis that UBS Limited is able to offset part of its taxable profits with prior-year tax losses transferred from UBS AG in 2014 and 2015. During 2016, the UK tax authorities indicated that they do not agree with this tax return filing position. If the authorities ultimately prevail on this point, UBS Limited would incur a reduction in recognized deferred tax assets of approximately CHF 60 million, as well as additional current tax expenses for periods from 2014 onward of approximately CHF 85 million.

## Note 8 Fair value measurement

This Note provides fair value measurement information for both financial and non-financial instruments and should be read in conjunction with "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016, which provides more information on valuation principles, valuation governance, valuation techniques, valuation adjustments, fair value hierarchy classification, valuation inputs, sensitivity of fair value measurements and methods applied to calculate fair values for financial instruments not measured at fair value.

## Note 8 Fair value measurement (continued)

### a) Fair value hierarchy

The fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value is summarized in the table below.

**Determination of fair values from quoted market prices or valuation techniques[1]**

| | 30.6.17 | | | | 31.3.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| Assets measured at fair value on a recurring basis | | | | | | | | | | | | |
| Financial assets held for trading[2] | 87,651 | 14,011 | 1,593 | 103,255 | 83,728 | 17,539 | 1,474 | 102,741 | 76,046 | 14,377 | 1,689 | 92,112 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *14,244* | *992* | *0* | *15,236* | *11,977* | *1,584* | *0* | *13,561* | *10,500* | *1,319* | *0* | *11,820* |
| *Corporate and municipal bonds* | *55* | *7,173* | *788* | *8,016* | *164* | *8,553* | *703* | *9,421* | *58* | *6,722* | *591* | *7,371* |
| *Loans* | *0* | *1,371* | *502* | *1,873* | *0* | *1,852* | *448* | *2,300* | *0* | *1,356* | *681* | *2,037* |
| *Investment fund units* | *5,242* | *2,946* | *25* | *8,213* | *4,441* | *3,783* | *20* | *8,244* | *6,114* | *3,521* | *63* | *9,698* |
| *Asset-backed securities* | *0* | *340* | *146* | *486* | *0* | *462* | *219* | *681* | *0* | *470* | *215* | *685* |
| *Equity instruments* | *58,971* | *517* | *62* | *59,549* | *58,398* | *684* | *9* | *59,092* | *50,916* | *397* | *65* | *51,378* |
| *Financial assets for unit-linked investment contracts* | *9,140* | *672* | *69* | *9,881* | *8,747* | *621* | *74* | *9,441* | *8,459* | *591* | *74* | *9,123* |
| Positive replacement values | 699 | 119,292 | 1,919 | 121,910 | 598 | 118,669 | 2,282 | 121,549 | 434 | 155,428 | 2,549 | 158,411 |
| *of which:* | | | | | | | | | | | | |
| *Interest rate contracts* | *1* | *47,589* | *161* | *47,751* | *0* | *53,168* | *168* | *53,336* | *8* | *57,703* | *278* | *57,988* |
| *Credit derivative contracts* | *0* | *2,245* | *777* | *3,023* | *0* | *2,329* | *1,166* | *3,495* | *0* | *2,562* | *1,313* | *3,875* |
| *Foreign exchange contracts* | *278* | *51,601* | *182* | *52,062* | *313* | *45,036* | *202* | *45,551* | *263* | *75,607* | *222* | *76,092* |
| *Equity / index contracts* | *18* | *16,568* | *799* | *17,385* | *1* | *16,649* | *731* | *17,381* | *1* | *17,274* | *729* | *18,003* |
| *Commodity contracts* | *0* | *1,249* | *0* | *1,250* | *0* | *1,455* | *9* | *1,464* | *0* | *2,269* | *8* | *2,277* |
| Financial assets designated at fair value | 21,488 | 28,367 | 1,580 | 51,436 | 23,081 | 24,090 | 1,588 | 48,760 | 39,641 | 23,304 | 2,079 | 65,024 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *20,579* | *3,916* | *0* | *24,494* | *22,093* | *3,460* | *0* | *25,552* | *39,439* | *4,361* | *0* | *43,799* |
| *Corporate and municipal bonds* | *730* | *20,575* | *0* | *21,306* | *809* | *18,595* | *0* | *19,404* | *15* | *16,860* | *0* | *16,875* |
| *Loans (including structured loans)* | *0* | *3,809* | *483* | *4,293* | *0* | *2,013* | *578* | *2,591* | *0* | *2,043* | *1,195* | *3,238* |
| *Structured reverse repurchase and securities borrowing agreements* | *0* | *65* | *577* | *643* | *0* | *22* | *731* | *753* | *0* | *40* | *644* | *684* |
| *Other* | *179* | *1* | *520* | *701* | *179* | *0* | *280* | *459* | *187* | *0* | *240* | *427* |
| Financial assets available for sale | 7,675 | 5,969 | 470 | 14,114 | 7,782 | 7,908 | 546 | 16,235 | 6,299 | 8,891 | 486 | 15,676 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *5,510* | *261* | *0* | *5,771* | *5,518* | *267* | *0* | *5,785* | *5,444* | *450* | *0* | *5,894* |
| *Corporate and municipal bonds* | *2,000* | *2,097* | *12* | *4,109* | *2,089* | *3,953* | *12* | *6,053* | *646* | *4,939* | *12* | *5,596* |
| *Investment fund units* | *0* | *69* | *99* | *168* | *0* | *69* | *122* | *191* | *0* | *51* | *126* | *177* |
| *Asset-backed securities* | *0* | *3,527* | *0* | *3,527* | *0* | *3,539* | *0* | *3,539* | *0* | *3,381* | *0* | *3,381* |
| *Equity instruments* | *165* | *14* | *359* | *539* | *170* | *81* | *400* | *651* | *204* | *71* | *336* | *611* |
| Non-financial assets | | | | | | | | | | | | |
| Precious metals and other physical commodities | 4,508 | 0 | 0 | 4,508 | 4,628 | 0 | 0 | 4,628 | 4,583 | 0 | 0 | 4,583 |
| Assets measured at fair value on a non-recurring basis | | | | | | | | | | | | |
| Other assets[3] | 0 | 61 | 34 | 95 | 5,009 | 123 | 35 | 5,167 | 5,060 | 131 | 56 | 5,248 |
| Total assets measured at fair value | 122,021 | 167,702 | 5,596 | 295,318 | 124,825 | 168,330 | 5,925 | 299,081 | 132,064 | 202,132 | 6,860 | 341,056 |

## Note 8 Fair value measurement (continued)

**Determination of fair values from quoted market prices or valuation techniques (continued)[1]**

| | 30.6.17 | | | | 31.3.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Liabilities measured at fair value on a recurring basis** | | | | | | | | | | | | |
| Trading portfolio liabilities | 20,539 | 4,695 | 87 | 25,321 | 23,422 | 5,027 | 128 | 28,576 | 18,808 | 3,898 | 119 | 22,825 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *6,378* | *591* | *0* | *6,969* | *7,438* | *501* | *0* | *7,939* | *5,573* | *648* | *0* | *6,221* |
| *Corporate and municipal bonds* | *39* | *3,799* | *6* | *3,844* | *97* | *4,194* | *38* | *4,329* | *12* | *2,927* | *37* | *2,976* |
| *Investment fund units* | *547* | *51* | *0* | *599* | *603* | *154* | *0* | *757* | *484* | *91* | *20* | *595* |
| *Equity instruments* | *13,574* | *254* | *80* | *13,908* | *15,284* | *176* | *89* | *15,549* | *12,740* | *227* | *62* | *13,028* |
| Negative replacement values | 650 | 115,528 | 2,849 | 119,027 | 608 | 115,784 | 3,572 | 119,964 | 539 | 149,255 | 4,016 | 153,810 |
| *of which:* | | | | | | | | | | | | |
| *Interest rate contracts* | *1* | *41,046* | *317* | *41,365* | *0* | *46,013* | *362* | *46,376* | *12* | *51,990* | *475* | *52,476* |
| *Credit derivative contracts* | *0* | *2,997* | *963* | *3,960* | *0* | *2,860* | *1,504* | *4,364* | *0* | *3,269* | *1,538* | *4,807* |
| *Foreign exchange contracts* | *287* | *50,996* | *138* | *51,421* | *341* | *45,354* | *149* | *45,844* | *274* | *71,668* | *148* | *72,089* |
| *Equity / index contracts* | *11* | *19,341* | *1,430* | *20,783* | *0* | *20,336* | *1,550* | *21,886* | *1* | *20,254* | *1,854* | *22,109* |
| *Commodity contracts* | *0* | *1,116* | *0* | *1,116* | *0* | *1,182* | *1* | *1,183* | *0* | *2,040* | *1* | *2,041* |
| Financial liabilities designated at fair value | 10 | 42,074 | 12,131 | 54,215 | 3 | 44,250 | 12,386 | 56,640 | 2 | 44,007 | 11,008 | 55,017 |
| *of which:* | | | | | | | | | | | | |
| *Issued debt instruments* | *9* | *37,693* | *10,228* | *47,930* | *2* | *40,406* | *10,232* | *50,640* | *0* | *40,242* | *9,688* | *49,930* |
| *Over-the-counter debt instruments* | *2* | *3,994* | *1,850* | *5,846* | *2* | *3,709* | *1,861* | *5,572* | *2* | *3,611* | *1,050* | *4,663* |
| *Structured repurchase agreements* | *0* | *381* | *48* | *429* | *0* | *122* | *288* | *410* | *0* | *130* | *266* | *395* |
| *Loan commitments and guarantees* | *0* | *6* | *4* | *10* | *0* | *12* | *5* | *18* | *0* | *25* | *5* | *29* |
| Other liabilities – amounts due under unit-linked investment contracts | 0 | 10,099 | 0 | 10,099 | 0 | 9,579 | 0 | 9,579 | 0 | 9,286 | 0 | 9,286 |
| **Liabilities measured at fair value on a non-recurring basis** | | | | | | | | | | | | |
| Other liabilities[3] | 0 | 5 | 0 | 5 | 0 | 5,052 | 0 | 5,052 | 0 | 5,213 | 0 | 5,213 |
| **Total liabilities measured at fair value** | 21,199 | 172,402 | 15,067 | 208,667 | 24,033 | 179,692 | 16,086 | 219,812 | 19,349 | 211,660 | 15,143 | 246,152 |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 30 June 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 31 million (of which CHF 36 million were net Level 2 assets and CHF 5 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 31 March 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 45 million (of which CHF 55 million were net Level 2 assets and CHF 10 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 31 December 2016, net bifurcated embedded derivative assets held at fair value totaling CHF 50 million (of which CHF 58 million were net Level 2 assets and CHF 8 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. 2 Financial assets held for trading exclude precious metals and other physical commodities. 3 Other assets and other liabilities primarily consist of assets held for sale as well as assets and liabilities of a disposal group held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell. Refer to Note 15 for more information.

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which the instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
- Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data or
- Level 3 – valuation techniques for which significant inputs are not based on observable market data.

## Note 8 Fair value measurement (continued)

### b) Valuation adjustments

**Day-1 reserves**

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period.

Deferred day-1 profit or loss related to financial instruments other than financial assets available for sale is released into *Net trading income* when pricing of equivalent products or the underlying parameters become observable or when the transaction is closed out.

Deferred day-1 profit or loss related to financial assets available for sale is released into *Other comprehensive income* when pricing of equivalent products or the underlying parameters become observable and is released into *Other income* when the assets are sold.

**Deferred day-1 profit or loss**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| **Balance at the beginning of the period** | 365 | 371 | 474 | 371 | 421 |
| Profit / (loss) deferred on new transactions | 65 | 51 | 38 | 116 | 160 |
| (Profit) / loss recognized in the income statement | (66) | (53) | (53) | (119) | (110) |
| (Profit) / loss recognized in other comprehensive income | 0 | 0 | (23) | 0 | (23) |
| Foreign currency translation | (15) | (3) | 8 | (18) | (5) |
| **Balance at the end of the period** | 349 | 365 | 444 | 349 | 444 |

### c) Transfers between Level 1 and Level 2

The amounts disclosed reflect transfers between Level 1 and Level 2 for instruments that were held for the entire reporting period.

Assets totaling approximately CHF 0.7 billion, which were mainly comprised of financial assets designated at fair value, primarily corporate and municipal bonds, were transferred from Level 2 to Level 1 during the first six months of 2017, generally due to increased levels of trading activity observed within the market. Liabilities transferred from Level 2 to Level 1 during the first six months of 2017 were negligible.

Assets totaling approximately CHF 0.2 billion, which were mainly comprised of financial assets available for sale, largely government bills / bonds, were transferred from Level 1 to Level 2 during the first six months of 2017, generally due to diminished levels of trading activity observed in the market. Liabilities transferred from Level 1 to Level 2 during the first six months of 2017 were negligible.

**Note 8 Fair value measurement (continued)**

## d) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities together with the valuation techniques used to measure fair value, the significant inputs used in the valuation technique that are considered unobservable and a range of values for those unobservable inputs.

The range of values represents the highest and lowest level input used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input, but rather the different underlying characteristics of the relevant assets and liabilities. The ranges and weighted averages will vary from period to period and from parameter to parameter based on characteristics of the instruments held at each balance sheet date. Further, the ranges and weighted averages of unobservable inputs may differ across other financial institutions due to the diversity of the products in each firm's inventory.

The significant unobservable inputs disclosed in the table below are generally consistent with those included in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016. A description of the potential effect that a change in each unobservable input in isolation may have on a fair value measurement, including information to facilitate an understanding of factors that give rise to the input ranges shown, is also provided in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016.

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 30.6.17 | | | 31.12.16 | | | |
| *CHF billion* | 30.6.17 | 31.12.16 | 30.6.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Financial assets held for trading / Trading portfolio liabilities, Financial assets / liabilities designated at fair value and Financial assets available for sale** | | | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.8* | *0.6* | *0.0* | *0.0* | Relative value to market comparable | Bond price equivalent | 0 | 132 | 88 | 0 | 128 | 88 | points |
| *Traded loans, loans designated at fair value, loan commitments and guarantees* | *1.4* | *2.0* | *0.0* | *0.0* | Relative value to market comparable | Loan price equivalent | 79 | 100 | 92 | 39 | 103 | 94 | points |
| | | | | | Discounted expected cash flows | Credit spread | 42 | 459 | | 71 | 554 | | basis points |
| | | | | | Market comparable and securitization model | Discount margin | 0 | 15 | 2 | 0 | 16 | 2 | % |
| *Structured (reverse) repurchase agreements* | *0.6* | *0.6* | *0.0* | *0.3* | Discounted expected cash flows | Funding spread | 15 | 195 | | 15 | 195 | | basis points |
| *Issued and over-the-counter debt instruments*[3] | | | *12.1* | *10.7* | | | | | | | | | |

## Note 8 Fair value measurement (continued)

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities (continued)**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 30.6.17 | | | 31.12.16 | | | |
| *CHF billion* | 30.6.17 | 31.12.16 | 30.6.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Replacement values** | | | | | | | | | | | | | |
| *Interest rate contracts* | *0.2* | *0.3* | *0.3* | *0.5* | Option model | Volatility of interest rates | 27 | 123 | | 26 | 176 | | % |
| | | | | | | Rate-to-rate correlation | 84 | 94 | | 84 | 94 | | % |
| | | | | | | Intra-curve correlation | 36 | 94 | | 36 | 94 | | % |
| *Credit derivative contracts* | *0.8* | *1.3* | *1.0* | *1.5* | Discounted expected cash flow based on modeled defaults and recoveries | Credit spreads | 0 | 656 | | 0 | 791 | | basis points |
| | | | | | | Upfront price points | 4 | 72 | | 1 | 13 | | % |
| | | | | | | Recovery rates | 15 | 50 | | 0 | 50 | | % |
| | | | | | | Credit index correlation | 10 | 70 | | 10 | 85 | | % |
| | | | | | | Discount margin | 0 | 11 | | (1) | 68 | | % |
| | | | | | | Credit pair correlation | 59 | 83 | | 59 | 100 | | % |
| | | | | | Discounted cash flow projection on underlying bond | Constant prepayment rate | 4 | 15 | | 1 | 15 | | % |
| | | | | | | Constant default rate | 1 | 6 | | 1 | 8 | | % |
| | | | | | | Loss severity | 40 | 100 | | 40 | 100 | | % |
| | | | | | | Discount margin | 0 | 8 | | 0 | 11 | | % |
| | | | | | | Bond price equivalent | 3 | 187 | | 3 | 100 | | points |
| *Equity / index contracts* | *0.8* | *0.7* | *1.4* | *1.9* | Option model | Equity dividend yields | 0 | 15 | | 0 | 15 | | % |
| | | | | | | Volatility of equity stocks, equity and other indices | 0 | 220 | | 0 | 150 | | % |
| | | | | | | Equity-to-FX correlation | (45) | 82 | | (45) | 82 | | % |
| | | | | | | Equity-to-equity correlation | (50) | 97 | | 12 | 98 | | % |

1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par (e.g., 100 points would be 100% of par). 2 Weighted averages are provided for non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to derivative contracts as this would not be meaningful. 3 Valuation techniques, significant unobservable inputs and the respective input ranges for issued debt instruments and over-the-counter debt instruments are the same as the equivalent derivative or structured financing instruments presented elsewhere in this table.

**Note 8 Fair value measurement (continued)**

## e) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible alternative assumptions would change fair value significantly, and the estimated effect thereof.

The table shown presents the favorable and unfavorable effects for each class of financial assets and liabilities for which the potential change in fair value is considered significant. The sensitivity data presented represent an estimation of valuation uncertainty based on reasonably possible alternative values for Level 3 inputs at the balance sheet date and does not represent the estimated effect of stress scenarios. Typically, these financial assets and liabilities are sensitive to a combination of inputs from Levels 1 through 3. Although well-defined interdependencies may exist between Levels 1–2 and Level 3 parameters (e.g., between interest rates, which are generally Level 1 or Level 2, and prepayments, which are generally Level 3), these have not been incorporated in the table. Further, direct interrelationships between the Level 3 parameters are not a significant element of the valuation uncertainty.

**Sensitivity of fair value measurements to changes in unobservable input assumptions**

| | 30.6.17 | | 31.3.17 | | 31.12.16 | |
|---|---|---|---|---|---|---|
| *CHF million* | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] |
| Corporate and municipal bonds | 15 | (20) | 35 | (30) | 34 | (39) |
| Traded loans, loans designated at fair value, loan commitments and guarantees | 80 | (8) | 78 | (7) | 82 | (10) |
| Equity instruments | 71 | (50) | 70 | (50) | 67 | (47) |
| Interest rate derivative contracts, net | 22 | (40) | 28 | (31) | 41 | (42) |
| Credit derivative contracts, net | 119 | (136) | 114 | (147) | 131 | (183) |
| Foreign exchange derivative contracts, net | 12 | (6) | 11 | (6) | 17 | (8) |
| Equity / index derivative contracts, net | 73 | (81) | 61 | (65) | 63 | (63) |
| Issued and over-the-counter debt instruments | 85 | (89) | 81 | (81) | 96 | (93) |
| Other | 23 | (23) | 21 | (26) | 29 | (31) |
| **Total** | 499 | (452) | 499 | (442) | 560 | (517) |

1 Of the total favorable changes, CHF 72 million as of 30 June 2017 (31 March 2017: CHF 76 million; 31 December 2016: CHF 75 million) related to financial assets available for sale. Of the total unfavorable changes, CHF 51 million as of 30 June 2017 (31 March 2017: CHF 55 million; 31 December 2016: CHF 55 million) related to financial assets available for sale.

## f) Level 3 instruments: movements during the period

### Significant changes in Level 3 instruments

The table on the following pages presents additional information about material Level 3 assets and liabilities measured at fair value on a recurring basis. Level 3 assets and liabilities may be hedged with instruments classified as Level 1 or Level 2 in the fair value hierarchy and, as a result, realized and unrealized gains and losses included in the table may not include the effect of related hedging activity. Furthermore, the realized and unrealized gains and losses presented within the table are not limited solely to those arising from Level 3 inputs, as valuations are generally derived from both observable and unobservable parameters.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Assets transferred into and out of Level 3 totaled CHF 0.4 billion and CHF 0.8 billion, respectively. Transfers into Level 3 were primarily comprised of corporate and municipal bonds and equity / index contracts, and were mainly due to decreased observability of the respective market pricing inputs. Transfers out of Level 3 were primarily comprised of credit derivative and equity / index contracts, reflecting increased observability of the respective credit spread and equity volatility inputs.

Liabilities transferred into and out of Level 3 totaled CHF 0.4 billion and CHF 1.9 billion, respectively. Transfers into Level 3 were primarily comprised of equity-linked issued debt instruments and equity / index contracts, due to decreased observability of the respective equity volatility inputs used to determine the fair value of the options embedded in these structures. Transfers out of Level 3 were primarily comprised of equity-linked issued debt instruments, equity / index and credit derivative contracts resulting from changes in the availability of the observable equity volatility and credit spread inputs used to determine the fair value of the options embedded in these structures.

## Note 8 Fair value measurement (continued)

**Movements of Level 3 instruments**

| CHF billion | Balance as of 31 December 2015 | Total gains / losses included in comprehensive income: Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | Balance as of 30 June 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Financial assets held for trading** | 2.1 | (0.1) | *0.0* | 0.6 | (3.0) | 2.5 | 0.0 | 0.5 | (0.4) | (0.1) | 2.2 |
| *of which:* | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.7* | *0.1* | *0.1* | *0.5* | *(0.3)* | *0.0* | *0.0* | *0.0* | *(0.1)* | *(0.1)* | *0.8* |
| *Loans* | *0.8* | *0.0* | *0.1* | *0.0* | *(2.3)* | *2.5* | *0.0* | *0.1* | *(0.2)* | *0.0* | *0.9* |
| *Other* | *0.6* | *(0.2)* | *(0.2)* | *0.1* | *(0.4)* | *0.0* | *0.0* | *0.4* | *(0.1)* | *0.0* | *0.4* |
| **Financial assets designated at fair value** | 3.3 | (0.2) | *(0.2)* | 0.0 | 0.0 | 0.2 | (0.8) | 0.4 | (0.1) | (0.1) | 2.8 |
| *of which:* | | | | | | | | | | | |
| *Loans (including structured loans)* | *1.7* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.2* | *(0.5)* | *0.4* | *(0.1)* | *(0.1)* | *1.5* |
| *Structured reverse repurchase and securities borrowing agreements* | *1.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.3)* | *0.0* | *0.0* | *0.0* | *1.2* |
| *Other* | *0.1* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* |
| **Financial assets available for sale** | 0.7 | 0.0 | *0.0* | 0.1 | (0.1) | 0.0 | 0.0 | 0.0 | (0.1) | 0.0 | 0.6 |
| **Positive replacement values** | 2.9 | 0.0 | *0.0* | 0.0 | 0.0 | 0.5 | (1.1) | 0.5 | (0.4) | (0.1) | 2.3 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.1* | *0.1* | *0.0* | *0.0* | *0.1* | *(0.3)* | *0.1* | *(0.2)* | *0.0* | *0.9* |
| *Equity / index contracts* | *1.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* | *(0.3)* | *0.2* | *(0.1)* | *0.0* | *0.9* |
| *Other* | *0.6* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.3* | *(0.5)* | *0.2* | *0.0* | *0.0* | *0.5* |
| **Negative replacement values** | 3.3 | 0.8 | *0.8* | 0.0 | 0.0 | 0.5 | (1.1) | 0.6 | (0.2) | 0.0 | 4.0 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.7* | *0.6* | *0.0* | *0.0* | *0.1* | *(0.4)* | *0.0* | *0.0* | *0.0* | *1.6* |
| *Equity / index contracts* | *1.4* | *0.0* | *0.0* | *0.0* | *0.0* | *0.4* | *(0.2)* | *0.1* | *(0.1)* | *0.0* | *1.6* |
| *Other* | *0.6* | *0.2* | *0.2* | *0.0* | *0.0* | *0.0* | *(0.4)* | *0.5* | *0.0* | *0.0* | *0.8* |
| **Financial liabilities designated at fair value** | 10.7 | 0.5 | *0.5* | 0.0 | 0.0 | 2.3 | (1.4) | 1.1 | (1.3) | (0.2) | 11.6 |
| *of which:* | | | | | | | | | | | |
| *Issued debt instruments* | *9.3* | *0.6* | *0.5* | *0.0* | *0.0* | *1.6* | *(0.9)* | *1.0* | *(1.3)* | *(0.2)* | *10.1* |
| *Over-the-counter debt instruments* | *0.8* | *0.0* | *0.0* | *0.0* | *0.0* | *0.6* | *(0.5)* | *0.0* | *0.0* | *0.0* | *0.9* |
| *Structured repurchase agreements* | *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.6* |

1 Total Level 3 assets as of 30 June 2017 were CHF 5.6 billion (31 March 2017: CHF 5.9 billion; 31 December 2016: CHF 6.9 billion). Total Level 3 liabilities as of 30 June 2017 were CHF 15.1 billion (31 March 2017: CHF 16.1 billion; 31 December 2016: CHF 15.1 billion).

## Note 8 Fair value measurement (continued)

| | Total gains / losses included in comprehensive income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | Balance as of 30 June 2017[1] |
| 1.7 | 0.0 | *0.0* | 0.7 | (2.3) | 1.6 | 0.0 | 0.2 | (0.2) | 0.0 | 1.6 |
| *0.6* | *0.0* | *0.0* | *0.3* | *(0.1)* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* | *0.8* |
| *0.7* | *0.1* | *0.0* | *0.3* | *(2.1)* | *1.6* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.5* |
| *0.4* | *(0.1)* | *(0.1)* | *0.1* | *(0.1)* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* | *0.3* |
| 2.1 | 0.0 | *0.0* | 0.0 | 0.0 | 0.3 | (0.7) | 0.0 | (0.1) | 0.0 | 1.6 |
| *1.2* | *0.1* | *0.1* | *0.0* | *0.0* | *0.0* | *(0.7)* | *0.0* | *(0.1)* | *0.0* | *0.5* |
| *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.6* |
| *0.2* | *0.0* | *0.0* | *0.0* | *0.0* | *0.3* | *0.0* | *0.0* | *0.0* | *0.0* | *0.5* |
| 0.5 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| 2.5 | (0.2) | *(0.3)* | 0.0 | 0.0 | 0.4 | (0.5) | 0.1 | (0.5) | 0.0 | 1.9 |
| *1.3* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *(0.3)* | *0.0* | *0.8* |
| *0.7* | *0.0* | *0.0* | *0.0* | *0.0* | *0.4* | *(0.2)* | *0.1* | *(0.1)* | *0.0* | *0.8* |
| *0.5* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *(0.1)* | *0.0* | *0.3* |
| 4.0 | (0.1) | *(0.2)* | 0.0 | 0.0 | 0.5 | (1.0) | 0.1 | (0.7) | 0.0 | 2.8 |
| *1.5* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *(0.3)* | *0.0* | *1.0* |
| *1.9* | *0.0* | *0.0* | *0.0* | *0.0* | *0.5* | *(0.5)* | *0.1* | *(0.4)* | *0.0* | *1.4* |
| *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *(0.1)* | *0.0* | *0.5* |
| 11.0 | 1.1 | *0.8* | 0.0 | 0.0 | 3.9 | (2.5) | 0.2 | (1.2) | (0.3) | 12.1 |
| *9.7* | *1.0* | *0.8* | *0.0* | *0.0* | *2.5* | *(2.0)* | *0.2* | *(0.9)* | *(0.3)* | *10.2* |
| *1.1* | *0.0* | *0.0* | *0.0* | *0.0* | *1.3* | *(0.5)* | *0.0* | *0.0* | *0.0* | *1.9* |
| *0.3* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *0.0* |

**Note 8 Fair value measurement (continued)**

## g) Financial instruments not measured at fair value

The table below reflects the estimated fair values of financial instruments not measured at fair value.

**Financial instruments not measured at fair value**

| | 30.6.17 | | 31.3.17 | | 31.12.16 | |
|---|---|---|---|---|---|---|
| *CHF billion* | Carrying value | Fair value | Carrying value | Fair value | Carrying value | Fair value |
| **Assets** | | | | | | |
| Cash and balances with central banks | 100.1 | 100.1 | 108.9 | 108.9 | 107.8 | 107.8 |
| Due from banks | 14.4 | 14.4 | 14.2 | 14.2 | 13.1 | 13.1 |
| Cash collateral on securities borrowed | 15.1 | 15.1 | 18.5 | 18.5 | 15.1 | 15.1 |
| Reverse repurchase agreements | 75.3 | 75.3 | 77.0 | 77.0 | 66.2 | 66.2 |
| Cash collateral receivables on derivative instruments | 22.7 | 22.7 | 22.5 | 22.5 | 26.7 | 26.7 |
| Loans | 310.4 | 312.5 | 310.8 | 313.6 | 307.0 | 310.4 |
| Financial assets held to maturity | 8.7 | 8.6 | 9.0 | 8.8 | 9.3 | 9.1 |
| Other assets | 21.2 | 21.2 | 20.8 | 20.8 | 18.5 | 18.5 |
| **Liabilities** | | | | | | |
| Due to banks | 11.6 | 11.6 | 8.7 | 8.7 | 10.6 | 10.6 |
| Cash collateral on securities lent | 2.5 | 2.5 | 3.1 | 3.1 | 2.8 | 2.8 |
| Repurchase agreements | 11.3 | 11.3 | 10.6 | 10.6 | 6.6 | 6.6 |
| Cash collateral payables on derivative instruments | 31.5 | 31.5 | 29.9 | 29.9 | 35.5 | 35.5 |
| Due to customers | 438.3 | 439.7 | 455.4 | 456.1 | 450.2 | 450.6 |
| Debt issued | 90.8 | 92.8 | 83.6 | 86.1 | 79.0 | 81.1 |
| Other liabilities | 36.2 | 36.2 | 38.0 | 38.0 | 39.0 | 39.0 |

The fair values included in the table above were calculated for disclosure purposes only. The fair value valuation techniques and assumptions relate only to the fair value of UBS's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimation, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another.

## Note 9 Derivative instruments

### a) Derivative instruments

| *As of 30.6.17, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 47.8 | 1,065 | 41.4 | 976 | 10,324 |
| Credit derivative contracts | 3.0 | 107 | 4.0 | 116 | 2 |
| Foreign exchange contracts | 52.1 | 2,292 | 51.4 | 2,144 | 8 |
| Equity / index contracts | 17.4 | 302 | 20.8 | 367 | 65 |
| Commodity contracts | 1.2 | 33 | 1.1 | 32 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.2 | 24 | 0.2 | 29 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 36 | 0.2 | 15 | |
| **Total derivative instruments, based on IFRS netting[4]** | 121.9 | 3,859 | 119.0 | 3,678 | 10,408 |
| Further netting potential not recognized on the balance sheet[5] | (107.7) | | (98.9) | | |
| *of which: netting of recognized financial liabilities / assets* | *(85.3)* | | *(85.3)* | | |
| *of which: netting with collateral received / pledged* | *(22.4)* | | *(13.5)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 14.2 | | 20.2 | | |
| | | | | | |
| *As of 31.3.17, CHF billion* | | | | | |
| **Derivative instruments** | | | | | |
| Interest rate contracts | 53.3 | 1,099 | 46.4 | 1,018 | 10,344 |
| Credit derivative contracts | 3.5 | 126 | 4.4 | 132 | 2 |
| Foreign exchange contracts | 45.6 | 2,645 | 45.8 | 2,579 | 12 |
| Equity / index contracts | 17.4 | 293 | 21.9 | 360 | 68 |
| Commodity contracts | 1.5 | 35 | 1.2 | 29 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.2 | 34 | 0.2 | 20 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 26 | 0.2 | 24 | |
| **Total derivative instruments, based on IFRS netting[4]** | 121.5 | 4,259 | 120.0 | 4,162 | 10,435 |
| Further netting potential not recognized on the balance sheet[5] | (107.9) | | (100.9) | | |
| *of which: netting of recognized financial liabilities / assets* | *(86.4)* | | *(86.4)* | | |
| *of which: netting with collateral received / pledged* | *(21.6)* | | *(14.5)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 13.6 | | 19.1 | | |
| | | | | | |
| *As of 31.12.16, CHF billion* | | | | | |
| **Derivative instruments** | | | | | |
| Interest rate contracts | 58.0 | 1,152 | 52.5 | 1,060 | 9,730 |
| Credit derivative contracts | 3.9 | 123 | 4.8 | 140 | |
| Foreign exchange contracts | 76.1 | 2,470 | 72.1 | 2,286 | 6 |
| Equity / index contracts | 18.0 | 269 | 22.1 | 318 | 55 |
| Commodity contracts | 2.3 | 39 | 2.0 | 36 | 9 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.1 | 18 | 0.1 | 10 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.1 | 13 | 0.2 | 11 | |
| **Total derivative instruments, based on IFRS netting[4]** | 158.4 | 4,084 | 153.8 | 3,860 | 9,799 |
| Further netting potential not recognized on the balance sheet[5] | (139.8) | | (129.6) | | |
| *of which: netting of recognized financial liabilities / assets* | *(113.1)* | | *(113.1)* | | |
| *of which: netting with collateral received / pledged* | *(26.7)* | | *(16.6)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 18.6 | | 24.2 | | |

1 In cases where replacement values are presented on a net basis on the balance sheet, the respective notional values of the netted replacement values are still presented on a gross basis. 2 Other notional values relate to derivatives that are cleared through either a central counterparty or an exchange. Many of these derivatives are either legally or economically settled on a daily basis. The residual unsettled fair value of these derivatives and the fair value of other derivatives that are presented on the balance sheet net of the corresponding cash margin, both within Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments, was not material for all periods presented. 3 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as replacement values. 4 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. 5 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 9 Derivative instruments (continued)

### b) Cash collateral on derivative instruments

| CHF billion | Receivables 30.6.17 | Payables 30.6.17 | Receivables 31.3.17 | Payables 31.3.17 | Receivables 31.12.16 | Payables 31.12.16 |
|---|---|---|---|---|---|---|
| Cash collateral on derivative instruments, based on IFRS netting[1] | 22.7 | 31.5 | 22.5 | 29.9 | 26.7 | 35.5 |
| Further netting potential not recognized on the balance sheet[2] | (11.2) | (18.4) | (13.2) | (18.1) | (15.1) | (22.2) |
| *of which: netting of recognized financial liabilities / assets* | *(10.7)* | *(17.8)* | *(11.6)* | *(16.8)* | *(14.2)* | *(20.8)* |
| *of which: netting with collateral received / pledged* | *(0.5)* | *(0.7)* | *(1.6)* | *(1.3)* | *(1.0)* | *(1.4)* |
| **Cash collateral on derivative instruments, after consideration of further netting potential** | 11.5 | 13.1 | 9.3 | 11.8 | 11.5 | 13.3 |

1 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Effective 3 January 2017, interest rate swaps and credit derivatives transacted with the Chicago Mercantile Exchange (CME) were legally converted from the previous collateral model to a settlement model resulting in a derecognition of the associated assets and liabilities, with UBS no longer applying IAS 32 netting principles. Refer to "Note 9 Derivative instruments" in the "Consolidated financial statements" section of the first quarter 2017 report for more information. 2 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 24 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 10 Other assets and liabilities

| *CHF million* | 30.6.17 | 31.3.17 | 31.12.16 |
|---|---|---|---|
| **Other assets** | | | |
| Prime brokerage receivables[1] | 12,388 | 11,372 | 9,828 |
| Recruitment loans to financial advisors | 2,643 | 2,952 | 3,087 |
| Other loans to financial advisors | 557 | 566 | 471 |
| Bail deposit[2] | 1,246 | 1,212 | 1,213 |
| Accrued interest income | 558 | 760 | 526 |
| Accrued income – other | 861 | 1,097 | 822 |
| Prepaid expenses | 921 | 1,071 | 1,008 |
| Settlement and clearing accounts | 385 | 498 | 516 |
| VAT and other tax receivables | 303 | 233 | 261 |
| Properties and other non-current assets held for sale | 95 | 92 | 111 |
| Assets of disposal group held for sale[3] | 0 | 5,074 | 5,137 |
| Other | 2,760 | 2,553 | 2,433 |
| **Total other assets** | 22,717 | 27,482 | 25,412 |
| **Other liabilities** | | | |
| Prime brokerage payables[1] | 30,068 | 31,496 | 31,973 |
| Amounts due under unit-linked investment contracts | 10,099 | 9,579 | 9,286 |
| Compensation-related liabilities | 3,983 | 3,654 | 5,256 |
| *of which: accrued expenses* | *1,501* | *989* | *2,367* |
| *of which: other deferred compensation plans* | *1,412* | *1,459* | *1,623* |
| *of which: net defined benefit pension and post-employment liabilities* | *1,070* | *1,205* | *1,266* |
| Third-party interest in consolidated investment funds | 342 | 397 | 751 |
| Settlement and clearing accounts | 699 | 918 | 1,011 |
| Current and deferred tax liabilities | 656 | 1,094 | 911 |
| VAT and other tax payables | 469 | 479 | 487 |
| Deferred income | 192 | 202 | 168 |
| Accrued interest expenses | 1,076 | 1,384 | 1,571 |
| Other accrued expenses | 2,114 | 2,753 | 2,427 |
| Liabilities of disposal group held for sale[3] | 0 | 5,052 | 5,213 |
| Other | 1,897 | 1,056 | 1,390 |
| **Total other liabilities** | 51,596 | 58,064 | 60,443 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage receivables are mainly comprised of margin lending receivables. Prime brokerage payables are mainly comprised of client securities financing and deposits. 2 Refer to item 1 in Note 13b for more information. 3 Refer to Note 15 for more information.

## Note 11 Financial liabilities designated at fair value

| *CHF million* | 30.6.17 | 31.3.17 | 31.12.16 |
|---|---|---|---|
| **Issued debt instruments** | | | |
| Equity-linked[1] | 31,869 | 31,802 | 29,831 |
| Rates-linked | 6,801 | 9,379 | 10,150 |
| Credit-linked | 3,748 | 3,888 | 4,101 |
| Fixed-rate | 3,123 | 3,100 | 2,972 |
| Other | 2,389 | 2,471 | 2,875 |
| **Total issued debt instruments** | 47,930 | 50,640 | 49,930 |
| *of which: issued by UBS AG with original maturity greater than one year[2,3]* | *35,095* | *35,601* | *36,347* |
| **Over-the-counter debt instruments** | 5,846 | 5,572 | 4,663 |
| *of which: issued by UBS AG with original maturity greater than one year[2,4]* | *4,824* | *4,521* | *4,210* |
| **Other** | 439 | 428 | 425 |
| **Total** | 54,215 | 56,640 | 55,017 |
| *of which: life-to-date own credit (gain) / loss* | *128* | *49* | *(141)* |

1 Includes investment fund unit-linked instruments issued. 2 Issued by the legal entity UBS AG. Based on original contractual maturity without considering any early redemption features. 3 More than 99% of the balance as of 30 June 2017 was unsecured (31 March 2017: more than 99% of the balance was unsecured; 31 December 2016: more than 99% of the balance was unsecured). 4 More than 20% of the balance as of 30 June 2017 was unsecured (31 March 2017: more than 25% of the balance was unsecured; 31 December 2016: more than 35% of the balance was unsecured).

## Note 12 Debt issued held at amortized cost

| *CHF million* | 30.6.17 | 31.3.17 | 31.12.16 |
|---|---|---|---|
| Certificates of deposit | 33,162 | 28,825 | 20,207 |
| Commercial paper | 6,530 | 1,355 | 1,653 |
| Other short-term debt | 4,199 | 5,186 | 4,318 |
| **Short-term debt[1]** | 43,891 | 35,367 | 26,178 |
| Senior fixed-rate bonds | 25,527 | 26,580 | 27,008 |
| *of which: issued by UBS AG with original maturity greater than one year[2,3]* | *25,450* | *26,495* | *26,850* |
| Covered bonds | 3,896 | 3,829 | 5,836 |
| Subordinated debt | 8,983 | 9,375 | 11,554 |
| *of which: low-trigger loss-absorbing tier 2 capital instruments* | *8,110* | *8,265* | *10,429* |
| *of which: non-Basel III-compliant tier 2 capital instruments* | *873* | *1,109* | *1,125* |
| Debt issued through the central bond institutions of the Swiss regional or cantonal banks | 8,369 | 8,300 | 8,302 |
| Other long-term debt | 91 | 112 | 121 |
| *of which: issued by UBS AG with original maturity greater than one year[2,4]* | *68* | *87* | *94* |
| **Long-term debt[5]** | 46,866 | 48,196 | 52,820 |
| **Total debt issued held at amortized cost[6]** | 90,757 | 83,563 | 78,998 |

1 Debt with an original maturity of less than one year. 2 Issued by the legal entity UBS AG. Based on original contractual maturity without considering any early redemption features. 3 100% of the balance as of 30 June 2017 was unsecured (31 March 2017: 100% of the balance was unsecured; 31 December 2016: 100% of the balance was unsecured). 4 More than 95% of the balance as of 30 June 2017 was unsecured (31 March 2017: 100% of the balance was unsecured; 31 December 2016: 100% of the balance was unsecured). 5 Debt with an original maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features. 6 Net of bifurcated embedded derivatives with a net positive fair value of CHF 20 million as of 30 June 2017 (31 March 2017: net positive fair value of CHF 34 million; 31 December 2016: net positive fair value of CHF 38 million).

## Note 13 Provisions and contingent liabilities

### a) Provisions

| *CHF million* | Operational risks[1] | Litigation, regulatory and similar matters[2] | Restructuring | Loan commitments and guarantees | Real estate | Employee benefits[5] | Other | Total provisions |
|---|---|---|---|---|---|---|---|---|
| Balance as of 31 December 2016 | 50 | 3,261 | 498 | 54 | 138 | 77 | 91 | 4,169 |
| Balance as of 31 March 2017 | 49 | 2,918 | 433 | 51 | 133 | 76 | 92 | 3,752 |
| Increase in provisions recognized in the income statement | 6 | 53 | 33 | 2 | 2 | 4 | 3 | 103 |
| Release of provisions recognized in the income statement | (3) | (43) | (8) | (10) | 0 | (8) | 0 | (73) |
| Provisions used in conformity with designated purpose | (4) | (410) | (65) | 0 | (4) | 0 | (21) | (504) |
| Capitalized reinstatement costs | 0 | 0 | 0 | 0 | (1) | 0 | 0 | (1) |
| Reclassifications | 0 | 0 | (19) | 10 | 0 | (14) | 0 | (22) |
| Foreign currency translation / unwind of discount | 0 | (72) | (10) | 0 | (5) | (1) | (1) | (88) |
| Balance as of 30 June 2017 | 47 | 2,446 | 364[3] | 53 | 125[4] | 57 | 74 | 3,167 |

1 Comprises provisions for losses resulting from security risks and transaction processing risks. 2 Comprises provisions for losses resulting from legal, liability and compliance risks. 3 Consists of personnel-related restructuring provisions of CHF 74 million as of 30 June 2017 (31 March 2017: CHF 108 million; 31 December 2016: CHF 150 million) and provisions for onerous lease contracts of CHF 290 million as of 30 June 2017 (31 March 2017: CHF 324 million; 31 December 2016: CHF 348 million). 4 Consists of reinstatement costs for leasehold improvements of CHF 83 million as of 30 June 2017 (31 March 2017: CHF 86 million; 31 December 2016: CHF 85 million) and provisions for onerous lease contracts of CHF 42 million as of 30 June 2017 (31 March 2017: CHF 48 million; 31 December 2016: CHF 53 million). 5 Includes provisions for sabbatical and anniversary awards as well as provisions for severance that are not part of restructuring provisions.

Restructuring provisions primarily relate to onerous lease contracts and severance payments. The use of onerous lease provisions is driven by the maturities of the underlying lease contracts. Severance-related provisions are used within a short time period, usually within six months, but potential changes in amount may be triggered when natural staff attrition reduces the number of people affected by a restructuring and therefore the estimated costs.

Information on provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 13b. There are no material contingent liabilities associated with the other classes of provisions.

### b) Litigation, regulatory and similar matters

UBS operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS AG and / or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where UBS may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which UBS believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. UBS makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that UBS has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against UBS, but are nevertheless expected to be, based on UBS's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to select matters could be significant.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

**Note 13 Provisions and contingent liabilities (continued)**

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard, or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in Note 13a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require us to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although we therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, we believe that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. For example, the Non-Prosecution Agreement (NPA) described in item 5 of this Note, which we entered into with the US Department of Justice (DOJ), Criminal Division, Fraud Section in connection with our submissions of benchmark interest rates, including, among others, the British Bankers' Association London Interbank Offered Rate (LIBOR), was terminated by the DOJ based on its determination that we had committed a US crime in relation to foreign exchange matters. As a consequence, UBS AG pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, paid a USD 203 million fine and is subject to a three-year term of probation. A guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for UBS. Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate our participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining our capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital management" section of the UBS Group second quarter 2017 report.

**Provisions for litigation, regulatory and similar matters by business division and Corporate Center unit[1]**

| *CHF million* | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | CC – Services | CC – Group ALM | CC – Non-core and Legacy Portfolio | UBS |
|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | 292 | 425 | 78 | 5 | 616 | 259 | 0 | 1,585 | 3,261 |
| **Balance as of 31 March 2017** | 244 | 385 | 77 | 4 | 404 | 255 | 0 | 1,550 | 2,918 |
| Increase in provisions recognized in the income statement | 1 | 44 | 0 | 5 | 0 | 0 | 0 | 2 | 53 |
| Release of provisions recognized in the income statement | 0 | (2) | 0 | (4) | 0 | 0 | 0 | (36) | (43) |
| Provisions used in conformity with designated purpose | (1) | (50) | 0 | 0 | 0 | (2) | 0 | (356) | (410) |
| Foreign currency translation / unwind of discount | 6 | (16) | 0 | 0 | (12) | 0 | 0 | (50) | (72) |
| **Balance as of 30 June 2017** | 249 | 361 | 77 | 5 | 391 | 253 | 0 | 1,110 | 2,446 |

1 Provisions, if any, for the matters described in this Note are recorded in Wealth Management (item 3), Wealth Management Americas (item 4), the Investment Bank (item 8), Corporate Center – Services (item 7) and Corporate Center – Non-core and Legacy Portfolio (item 2). Provisions, if any, for the matters described in items 1 and 6 of this Note are allocated between Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in this Note in item 5 are allocated between the Investment Bank, Corporate Center – Services and Corporate Center – Non-core and Legacy Portfolio.

**Note 13 Provisions and contingent liabilities (continued)**

### 1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions. It is possible that implementation of automatic tax information exchange and other measures relating to cross-border provision of financial services could give rise to further inquiries in the future. UBS has received disclosure orders from the Swiss Federal Tax Administration (FTA) to transfer information based on requests for international administrative assistance in tax matters. The requests concern a number of UBS account numbers pertaining to current and former clients and are based on data from 2006 and 2008. UBS has taken steps to inform affected clients about the administrative assistance proceedings and their procedural rights, including the right to appeal. The requests are based on data received from the German authorities, who seized certain data related to UBS clients booked in Switzerland during their investigations and have apparently shared this data with other European countries. UBS expects additional countries to file similar requests. In addition, the Swiss Federal Supreme Court ruled in 2016 that the double taxation agreement between the Netherlands and Switzerland provides a sufficient legal basis for an administrative assistance group request without specifying the names of the targeted taxpayers, which makes it more likely that similar requests for administrative assistance will be granted by the FTA.

The Swiss Federal Administrative Court ruled in 2016 that in the administrative assistance proceedings related to a French bulk request, UBS has the right to appeal all final FTA client data disclosure orders.

Since 2013, UBS (France) S.A. and UBS AG and certain former employees have been under investigation in France for alleged complicity in having illicitly solicited clients on French territory and regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons. In connection with this investigation, the investigating judges ordered UBS AG to provide bail ("*caution*") of EUR 1.1 billion and UBS (France) S.A. to post bail of EUR 40 million, which was reduced on appeal to EUR 10 million.

In February 2016, the investigating judges notified UBS AG and UBS (France) S.A. that they have closed their investigation. In July 2016, UBS AG and UBS (France) S.A. received the National Financial Prosecutor's recommendation ("*réquisitoire*"). In March 2017, the investigating judges issued the trial order ("*ordonnance de renvoi*") that charges UBS AG and UBS (France) S.A., as well as various former employees, with illicit solicitation of clients on French territory and with participation in the laundering of the proceeds of tax fraud, and which transfers the case to court. The trial schedule has not yet been announced.

In February 2016, UBS was notified by the Belgian investigating judge that it is under formal investigation ("*inculpé*") regarding the laundering of proceeds of tax fraud and of banking, financial solicitation by unauthorized persons and serious tax fraud.

In 2015, UBS received inquiries from the US Attorney's Office for the Eastern District of New York and from the US Securities and Exchange Commission (SEC), which are investigating potential sales to US persons of bearer bonds and other unregistered securities in possible violation of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and the registration requirements of the US securities laws. UBS is cooperating with the authorities in these investigations.

UBS has, and reportedly numerous other financial institutions have, received inquiries from authorities concerning accounts relating to the Fédération Internationale de Football Association (FIFA) and other constituent soccer associations and related persons and entities. UBS is cooperating with authorities in these inquiries.

Our balance sheet at 30 June 2017 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages. A subsidiary of UBS, UBS Real Estate Securities Inc. (UBS RESI), acquired pools of residential mortgage loans from originators and (through an affiliate) deposited them into securitization trusts. In this manner, from 2004 through 2007, UBS RESI sponsored approximately USD 80 billion in RMBS, based on the original principal balances of the securities issued.

UBS RESI also sold pools of loans acquired from originators to third-party purchasers. These whole loan sales during the period 2004 through 2007 totaled approximately USD 19 billion in original principal balance.

We were not a significant originator of US residential loans. A branch of UBS originated approximately USD 1.5 billion in US residential mortgage loans during the period in which it was active from 2006 to 2008, and securitized less than half of these loans.

*RMBS-related lawsuits concerning disclosures:* UBS has been named as a defendant in lawsuits relating to its role as underwriter and issuer of RMBS.

In April 2017, UBS reached a final settlement in a lawsuit brought in the US District Court for the District of Kansas by the National Credit Union Administration (NCUA) as conservator for certain failed credit unions, asserting misstatements and omissions in the offering documents for USD 1.15 billion in original principal balance of RMBS purchased by the credit unions. UBS and the NCUA settled this matter for USD 445 million. A similar case brought by the NCUA in the US District Court for the Southern District of New York (SDNY) was settled in 2016.

UBS has indemnification rights against surviving third-party issuers or originators for losses or liabilities incurred by UBS in connection with certain of these matters.

*Lawsuits related to contractual representations and warranties concerning mortgages and RMBS:* When UBS acted as an RMBS sponsor or mortgage seller, we generally made certain representations relating to the characteristics of the underlying loans. In the event of a material breach of these representations, we were in certain circumstances contractually obligated to repurchase the loans to which the representations related or to indemnify certain parties against losses. UBS has received demands to repurchase US residential mortgage loans as to which UBS made certain representations at the time the loans were transferred to the securitization trust aggregating USD 4.1 billion in original principal balance. Of this amount, UBS considers claims relating to USD 2 billion in original principal balance to be resolved, including claims barred by the statute of limitations. Substantially all of the remaining claims are in litigation, including the matters described in the next paragraph. UBS believes that new demands to repurchase US residential mortgage loans are time-barred under a decision rendered by the New York Court of Appeals.

In 2012, certain RMBS trusts filed an action (Trustee Suit) in the SDNY seeking to enforce UBS RESI's obligation to repurchase loans in the collateral pools for three RMBS securitizations with an original principal balance of approximately USD 2 billion, for which Assured Guaranty Municipal Corp., a financial guaranty insurance company, had previously demanded repurchase. Approximately 9,000 loans were at issue in a bench trial in the SDNY in 2016, following which the court issued an order ruling on numerous legal and factual issues and applying those rulings to 20 exemplar loans. The court further ordered that a lead master be appointed to apply the court's rulings to the loans that remain at issue following the trial. With respect to the loans subject to the Trustee Suit that were originated by institutions still in existence, UBS intends to enforce its indemnity rights against those institutions.

*Mortgage-related regulatory matters:* In 2014, UBS received a subpoena from the US Attorney's Office for the Eastern District of New York issued pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), which seeks documents and information related to UBS's RMBS business from 2005 through 2007. In 2015, the Eastern District of New York identified a number of transactions that are the focus of their inquiry, and has subsequently provided a revised list of transactions. We have provided and continue to provide information. UBS continues to respond to the FIRREA subpoena and to subpoenas from the New York State Attorney General and other state attorneys general relating to its RMBS business. In addition, UBS has also been responding to inquiries from both the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) (who is working in conjunction with the US Attorney's Office for Connecticut and the DOJ) and the SEC relating to trading practices in connection with purchases and sales of mortgage-backed securities in the secondary market from 2009 through 2014. We are cooperating with the authorities in these matters.

## Note 13 Provisions and contingent liabilities (continued)

Our balance sheet at 30 June 2017 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier (CSSF). Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds now face severe losses, and the Luxembourg funds are in liquidation. The last reported net asset value of the two Luxembourg funds before revelation of the Madoff scheme was approximately USD 1.7 billion in the aggregate although that figure likely includes fictitious profit reported by BMIS. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members. UBS Europe SE, Luxembourg branch, and certain other UBS subsidiaries are responding to inquiries by Luxembourg investigating authorities, without, however, being named as parties in those investigations.

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims on behalf of the funds against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees. The amounts claimed are approximately EUR 890 million and EUR 305 million, respectively. The liquidators have filed supplementary claims for amounts that the funds may possibly be held liable to pay the trustee for the liquidation of BMIS (BMIS Trustee). These amounts claimed by the liquidator are approximately EUR 564 million and EUR 370 million, respectively.

In addition, a large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff scheme. The majority of these cases are pending in Luxembourg, where appeals were filed by the claimants against the 2010 decisions of the court in which the claims in a number of test cases were held to be inadmissible. The Luxembourg Court of Appeal has found in favor of UBS and dismissed all of these test case appeals, confirming that the claims are inadmissible. The Luxembourg Supreme Court has also dismissed a further appeal brought by the claimant in one of the test cases.

In the US, the BMIS Trustee filed claims in 2010 against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2 billion. Following a motion by UBS, in 2011, the SDNY dismissed all of the BMIS Trustee's claims other than claims for recovery of fraudulent conveyances and preference payments that were allegedly transferred to UBS on the ground that the BMIS Trustee lacks standing to bring such claims. In 2013, the Second Circuit affirmed the District Court's decision and, in 2014, the US Supreme Court denied the BMIS Trustee's petition seeking review of the Second Circuit ruling. In 2016, the bankruptcy court issued an opinion dismissing the remaining claims for recovery of subsequent transfers of fraudulent conveyances and preference payments on the ground that the US Bankruptcy Code does not apply to transfers that occurred outside the US, and judgment was entered in March 2017. The BMIS Trustee has appealed that ruling. In 2014, several claims, including a purported class action, were filed in the US by BMIS customers against UBS entities, asserting claims similar to the ones made by the BMIS Trustee, seeking unspecified damages. One claim was voluntarily withdrawn by the plaintiff. In 2015, following a motion by UBS, the SDNY dismissed the two remaining claims on the basis that the New York courts did not have jurisdiction to hear the claims against the UBS entities. The plaintiff in one of those claims has appealed the dismissal.

In Germany, certain clients of UBS are exposed to Madoff-managed positions through third-party funds and funds administered by UBS entities in Germany. A small number of claims have been filed with respect to such funds. In 2015, a court of appeal ordered UBS to pay EUR 49 million, plus interest of approximately EUR 15.3 million.

**Note 13 Provisions and contingent liabilities (continued)**

4. Puerto Rico

Declines since August 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) have led to multiple regulatory inquiries, as well as customer complaints and arbitrations with aggregate claimed damages of USD 2.1 billion, of which claims with aggregate claimed damages of USD 1.1 billion have been resolved through settlements, arbitration or withdrawal of the claim. The claims are filed by clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and / or who used their UBS account assets as collateral for UBS non-purpose loans; customer complaint and arbitration allegations include fraud, misrepresentation and unsuitability of the funds and of the loans. A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2015, defendants' motion to dismiss was denied. Defendants' requests for permission to appeal that ruling were denied by the Puerto Rico Court of Appeals and the Puerto Rico Supreme Court. In 2014, a federal class action complaint also was filed against various UBS entities, certain members of UBS PR senior management and the co-manager of certain of the funds, seeking damages for investor losses in the funds during the period from May 2008 through May 2014. In 2016, defendants' motion to dismiss was granted in part and denied in part. In 2015, a class action was filed in Puerto Rico state court against UBS PR seeking equitable relief in the form of a stay of any effort by UBS PR to collect on non-purpose loans it acquired from UBS Bank USA in December 2013 based on plaintiffs' allegation that the loans are not valid. The trial court denied defendant's motion to dismiss the action based on a forum selection clause in the loan agreements. The Puerto Rico Supreme Court reversed that decision and remanded the case back to the trial court for reconsideration.

In 2014, UBS reached a settlement with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico (OCFI) in connection with OCFI's examination of UBS's operations from January 2006 through September 2013, pursuant to which UBS is paying up to an aggregate of USD 7.7 million in investor education contributions and restitution.

In 2015, the SEC and the Financial Industry Regulatory Authority (FINRA) announced settlements with UBS PR of their separate investigations stemming from the 2013 market events. Without admitting or denying the findings in either matter, UBS PR agreed in the SEC settlement to pay USD 15 million and USD 18.5 million in the FINRA matter. We also understand that the DOJ is conducting a criminal inquiry into the impermissible reinvestment of non-purpose loan proceeds. We are cooperating with the authorities in this inquiry.

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of USD 3 billion of bonds by the System in 2008 and sought damages of over USD 800 million. In December 2016, the court granted the System's request to join the action as a plaintiff, but ordered that plaintiffs must file an amended complaint. In March 2017, the court denied defendants' motion to dismiss the amended complaint.

Also, in 2013, an SEC Administrative Law Judge dismissed a case brought by the SEC against two UBS executives, finding no violations. The charges had stemmed from the SEC's investigation of UBS's sale of closed-end funds in 2008 and 2009, which UBS settled in 2012. Beginning in 2012, two federal class action complaints, which were subsequently consolidated, were filed against various UBS entities, certain of the funds and certain members of UBS PR senior management, seeking damages for investor losses in the funds during the period from January 2008 through May 2012 based on allegations similar to those in the SEC action. In 2016, the court denied plaintiffs' motion for class certification. In March 2017, the US Court of Appeals for the First Circuit denied plaintiffs' petition seeking permission to bring an interlocutory appeal challenging the denial of their motion for class certification.

**Note 13 Provisions and contingent liabilities (continued)**

In 2015, certain agencies and public corporations of the Commonwealth of Puerto Rico (Commonwealth) defaulted on certain interest payments, in 2016, the Commonwealth defaulted on payments on its general obligation debt (GO Bonds), and in 2017 the Commonwealth defaulted on payments on its debt backed by the Commonwealth's Sales and Use Tax (COFINA Bonds) as well as on bonds issued by the Commonwealth's Employee Retirement System (ERS Bonds). The funds hold significant amounts of both COFINA and ERS Bonds and the defaults on interest payments are expected to adversely affect dividends from the funds. Executive orders of the Governor that have diverted funds to pay for essential services instead of debt payments and stayed any action to enforce creditors' rights on the Puerto Rico bonds continue to be in effect. In 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board is authorized to impose, and has imposed, a stay on exercise of creditors' rights. In May and June 2017, the oversight board placed the GO, COFINA and ERS Bonds, among others, into a bankruptcy-like proceeding under the supervision of a Federal District Judge as authorized by the oversight board's enabling statute. These events, further defaults, any further legislative action to create a legal means of restructuring Commonwealth obligations or to impose additional oversight on the Commonwealth's finances, or any restructuring of the Commonwealth's obligations may increase the number of claims against UBS concerning Puerto Rico securities, as well as potential damages sought.

Our balance sheet at 30 June 2017 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

### 5. Foreign exchange, LIBOR, and benchmark rates, and other trading practices

*Foreign exchange-related regulatory matters:* Following an initial media report in 2013 of widespread irregularities in the foreign exchange markets, UBS immediately commenced an internal review of its foreign exchange business, which includes our precious metals and related structured products businesses. Since then, various authorities have commenced investigations concerning possible manipulation of foreign exchange markets, including FINMA, the Swiss Competition Commission (WEKO), the DOJ, the SEC, the US Commodity Futures Trading Commission (CFTC), the Board of Governors of the Federal Reserve System (Federal Reserve Board), the California State Attorney General, the UK Financial Conduct Authority (FCA) (to which certain responsibilities of the UK Financial Services Authority (FSA) have passed), the UK Serious Fraud Office (SFO), the Australian Securities and Investments Commission (ASIC), the Hong Kong Monetary Authority (HKMA), the Korea Fair Trade Commission (KFTC) and the Brazil Competition Authority (CADE). In addition, WEKO is, and a number of other authorities reportedly are, investigating potential manipulation of precious metals prices.

In 2014, UBS reached settlements with the FCA and the CFTC in connection with their foreign exchange investigations, and FINMA issued an order concluding its formal proceedings with respect to UBS relating to its foreign exchange and precious metals businesses. In 2015, the Federal Reserve Board and the Connecticut Department of Banking issued an Order to Cease and Desist and Order of Assessment of a Civil Monetary Penalty Issued upon Consent (Federal Reserve Order) to UBS AG.

In 2015, the DOJ's Criminal Division (Criminal Division) terminated the December 2012 Non-Prosecution Agreement (NPA) with UBS AG related to UBS's submissions of benchmark interest rates. As a result, UBS AG entered into a plea agreement with the Criminal Division pursuant to which UBS AG pleaded guilty to a one-count criminal information filed in the US District Court for the District of Connecticut charging UBS AG with one count of wire fraud in violation of 18 USC Sections 1343 and 2. Sentencing occurred in January 2017. Under the plea agreement, UBS AG has paid a USD 203 million fine and is subject to a three-year term of probation starting on the sentencing date. The criminal information charges that, between approximately 2001 and 2010, UBS AG engaged in a scheme to defraud counterparties to interest rate derivatives transactions by manipulating benchmark interest rates, including Yen LIBOR. The Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA in certain foreign exchange market transactions.

We have ongoing obligations to cooperate with these authorities and to undertake certain remediation, including actions to improve UBS's processes and controls.

**Note 13 Provisions and contingent liabilities (continued)**

UBS has been granted conditional leniency or conditional immunity by the Antitrust Division of the DOJ (Antitrust Division) from prosecution for EUR / USD collusion and entered into a non-prosecution agreement covering other currency pairs. As a result, UBS AG will not be subject to prosecutions, fines or other sanctions for antitrust law violations by the Antitrust Division, subject to UBS AG's continuing cooperation. However, the conditional leniency and conditional immunity grant does not bar government agencies from asserting other claims and imposing sanctions against UBS AG. UBS has also been granted conditional immunity by authorities in certain jurisdictions, including WEKO, in connection with potential competition law violations relating to foreign exchange and precious metals businesses and, as a result, will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in those jurisdictions, subject to UBS AG's continuing cooperation as the leniency applicant.

Investigations relating to foreign exchange and precious metals matters by numerous authorities, including the CFTC, remain ongoing notwithstanding these resolutions.

*Foreign exchange-related civil litigation:* Putative class actions have been filed since November 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. They allege collusion by the defendants and assert claims under the antitrust laws and for unjust enrichment. In 2015, additional putative class actions were filed in federal court in New York against UBS and other banks on behalf of a putative class of persons who entered into or held any foreign exchange futures contracts and options on foreign exchange futures contracts since 1 January 2003. The complaints assert claims under the Commodity Exchange Act (CEA) and the US antitrust laws. In 2015, a consolidated complaint was filed on behalf of both putative classes of persons covered by the US federal court class actions described above. UBS has entered into a settlement agreement that would resolve all of these US federal court class actions. The agreement, which has been preliminarily approved by the court and is subject to final court approval, requires, among other things, that UBS pay an aggregate of USD 141 million and provide cooperation to the settlement classes.

A putative class action has been filed in federal court in New York against UBS and other banks on behalf of participants, beneficiaries and named fiduciaries of plans qualified under the Employee Retirement Income Security Act of 1974 (ERISA) for whom a defendant bank provided foreign currency exchange transactional services, exercised discretionary authority or discretionary control over management of such ERISA plan, or authorized or permitted the execution of any foreign currency exchange transactional services involving such plan's assets. The complaint asserts claims under ERISA. The parties filed a stipulation to dismiss the case with prejudice. The plaintiffs have appealed the dismissal. The appeals court heard oral argument in June 2017.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of a putative class of persons and businesses in the US who directly purchased foreign currency from the defendants and their co-conspirators for their own end use. That action has been transferred to federal court in New York. In March 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint.

In 2016, a putative class action was filed in federal court in New York against UBS and numerous other banks on behalf of a putative class of persons and entities who had indirectly purchased FX instruments from a defendant or co-conspirator in the US. The complaint asserts claims under federal and state antitrust laws. In response to defendants' motion to dismiss, plaintiffs agreed to dismiss their complaint. In April and June 2017, two new putative class actions were filed in federal court in New York against UBS and numerous other banks on behalf of different proposed classes of indirect purchasers of currency, and a consolidated complaint was filed on 30 June 2017.

In 2015, UBS was added to putative class actions pending against other banks in federal court in New York and other jurisdictions on behalf of putative classes of persons who had bought or sold physical precious metals and various precious metal products and derivatives. The complaints in these lawsuits assert claims under the antitrust laws and the CEA, and other claims. In October 2016, the court in New York granted UBS's motions to dismiss the putative class actions relating to gold and silver. Plaintiffs in those cases sought to amend their complaints to add new allegations about UBS, which the court granted. In March 2017, the court in New York granted UBS's motion to dismiss the platinum and palladium action. In May 2017, plaintiffs filed an amended complaint that did not allege claims against UBS.

*LIBOR and other benchmark-related regulatory matters:* Numerous government agencies, including the SEC, the CFTC, the DOJ, the FCA, the SFO, the Monetary Authority of Singapore (MAS), the HKMA, FINMA, the various state attorneys general in the US and competition authorities in various jurisdictions have conducted or are continuing to conduct investigations regarding submissions with respect to LIBOR and other benchmark rates. These investigations focus on whether there were improper attempts by UBS, among others, either acting on our own or together with others, to manipulate LIBOR and other benchmark rates at certain times.

**Note 13 Provisions and contingent liabilities (continued)**

In 2012, UBS reached settlements with the FSA, the CFTC and the Criminal Division of the DOJ in connection with their investigations of benchmark interest rates. At the same time, FINMA issued an order concluding its formal proceedings with respect to UBS relating to benchmark interest rates. UBS has paid a total of CHF 1.4 billion in fines and disgorgement in connection with these resolutions. UBS Securities Japan Co. Ltd. (UBSSJ) entered into a plea agreement with the DOJ under which it entered a plea to one count of wire fraud relating to the manipulation of certain benchmark interest rates, including Yen LIBOR. UBS entered into an NPA with the DOJ, which (along with the plea agreement) covered conduct beyond the scope of the conditional leniency / immunity grants described below. Under the NPA, UBS agreed, among other things, that for two years from 18 December 2012 it would not commit any US crime and would advise the DOJ of any potentially criminal conduct by UBS or any of its employees relating to violations of US laws concerning fraud or securities and commodities markets. The term of the NPA was extended by one year to 18 December 2015. In 2015, the Criminal Division terminated the NPA based on its determination, in its sole discretion, that certain UBS AG employees committed criminal conduct that violated the NPA.

In 2014, UBS reached a settlement with the European Commission (EC) regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and paid a EUR 12.7 million fine, which was reduced to this level based in part on UBS's cooperation with the EC. In 2016, UBS reached a settlement with WEKO regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives and received full immunity from fines. The MAS, HKMA and the Japan Financial Services Agency have also resolved investigations of UBS (and in some cases, other banks). We have ongoing obligations to cooperate with the authorities with whom we have reached resolutions and to undertake certain remediation with respect to benchmark interest rate submissions.

Investigations by the CFTC, ASIC and other governmental authorities remain ongoing notwithstanding these resolutions.

UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO, in connection with potential antitrust or competition law violations related to submissions for Yen LIBOR and Euroyen TIBOR. As a result of these conditional grants, UBS will not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in the jurisdictions where we have conditional immunity in connection with the matters covered by the conditional grants, subject to our continuing cooperation as leniency applicant. However, since the Secretariat of WEKO has asserted that UBS does not qualify for full immunity, UBS has been unable to reach a settlement with WEKO, and therefore the investigation will continue. Furthermore, the conditional leniency and conditional immunity grants we have received do not bar government agencies from asserting other claims and imposing sanctions against us. In addition, as a result of the conditional leniency agreement with the DOJ, we are eligible for a limit on liability to actual rather than treble damages were damages to be awarded in any civil antitrust action under US law based on conduct covered by the agreement and for relief from potential joint and several liability in connection with such civil antitrust action, subject to our satisfying the DOJ and the court presiding over the civil litigation of our cooperation. The conditional leniency and conditional immunity grants do not otherwise affect the ability of private parties to assert civil claims against us.

*LIBOR and other benchmark-related civil litigation:* A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. All of the complaints allege manipulation, through various means, of various benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, USD and SGD SIBOR and SOR, Australian BBSW and USD ISDAFIX, and seek unspecified compensatory and other damages under varying legal theories.

In 2013, the US district court in the USD LIBOR action dismissed the federal antitrust and racketeering claims of certain USD LIBOR plaintiffs and a portion of their claims brought under the CEA and state common law. Certain plaintiffs appealed the decision to the Second Circuit, which, in 2016, vacated the district court's ruling finding no antitrust injury and remanded the case back to the district court for a further determination on whether plaintiffs have antitrust standing. In December 2016, the district court again dismissed plaintiffs' antitrust claims, this time for lack of personal jurisdiction over UBS and other foreign banks. In 2014, the court in one of the Euroyen TIBOR lawsuits dismissed certain of the plaintiff's claims, including federal antitrust claims. In 2015, the same court dismissed plaintiff's federal racketeering claims and affirmed its previous dismissal of plaintiff's antitrust claims. In 2017, the court also dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds. Also in 2017, the courts in the EURIBOR and the SIBOR and SOR lawsuits dismissed the cases as to UBS and certain other foreign defendants for lack of personal jurisdiction. UBS and other defendants in other lawsuits including those related to CHF LIBOR, GBP LIBOR and Australian BBSW have filed motions to dismiss. In 2016, UBS entered into an agreement with representatives of a class of bondholders to settle their USD LIBOR class action. The agreement has received preliminary court approval and remains subject to final approval.

**Note 13 Provisions and contingent liabilities (continued)**

Since September 2014, putative class actions have been filed in federal court in New York and New Jersey against UBS and other financial institutions, among others, on behalf of parties who entered into interest rate derivative transactions linked to ISDAFIX. The complaints, which have since been consolidated into an amended complaint, allege that the defendants conspired to manipulate ISDAFIX rates from 1 January 2006 through June 2013, in violation of US antitrust laws and certain state laws, and seek unspecified compensatory damages, including treble damages. On 12 July 2017, the court overseeing the ISDAFIX class action preliminarily approved a settlement agreement between UBS AG and the plaintiffs, whereby UBS AG agreed to pay USD 14 million to settle the case in its entirety.

*Government bonds:* Putative class actions have been filed in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. The complaints generally allege that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction. They assert claims under the antitrust laws and the CEA and for unjust enrichment. The cases have been consolidated in the SDNY. Following filing of these complaints, UBS and reportedly other banks are responding to investigations and requests for information from various authorities regarding US Treasury securities and other government bond trading practices. As a result of its review to date, UBS has taken appropriate action.

With respect to additional matters and jurisdictions not encompassed by the settlements and order referred to above, our balance sheet at 30 June 2017 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver.

FINMA has issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and may continue to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among others, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

Our balance sheet at 30 June 2017 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 7. Banco UBS Pactual tax indemnity

Pursuant to the 2009 sale of Banco UBS Pactual S.A. (Pactual) by UBS to BTG Investments, LP (BTG), BTG has submitted contractual indemnification claims that UBS estimates amount to BRL 2.7 billion, including interest and penalties, which is net of liabilities retained by BTG. The claims pertain principally to several tax assessments issued by the Brazilian tax authorities against Pactual relating to the period from December 2006 through March 2009, when UBS owned Pactual. These assessments are being challenged in administrative and judicial proceedings. The majority of these assessments relate to the deductibility of goodwill amortization in connection with UBS's 2006 acquisition of Pactual and payments made to Pactual employees through various profit-sharing plans. In 2015, an intermediate administrative court issued a decision that was largely in favor of the tax authority with respect to the goodwill amortization assessment. In 2016, the highest level of the administrative court agreed to review this decision on a number of the significant issues.

### 8. Investigation of UBS's role in initial public offerings in Hong Kong

The Hong Kong Securities and Futures Commission (SFC) has been conducting investigations into UBS's role as a sponsor of certain initial public offerings listed on the Hong Kong Stock Exchange. In 2016, the SFC informed UBS that it intends to commence action against UBS and certain UBS employees with respect to sponsorship work in those offerings, which could result in financial ramifications for UBS, including fines and obligations to pay investor compensation, and suspension of UBS's ability to provide corporate finance advisory services in Hong Kong for a period of time. In January 2017, a writ was filed by the SFC with Hong Kong's High Court in which UBS is named as one of six defendants from whom the SFC is seeking compensation in an unspecified amount for losses incurred by certain shareholders of China Forestry Holdings Company Limited, for whom UBS acted as a sponsor in connection with their 2009 listing application.

## Note 14 Guarantees, commitments and forward starting transactions

The table below shows the maximum irrevocable amount of guarantees, commitments and forward starting transactions.

| | 30.6.17 | | | 31.3.17 | | | 31.12.16 | | |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Gross | Sub-participations | Net | Gross | Sub-participations | Net | Gross | Sub-participations | Net |
| **Guarantees** | | | | | | | | | |
| Credit guarantees and similar instruments | 6,411 | (390) | 6,021 | 6,595 | (427) | 6,168 | 6,447 | (424) | 6,023 |
| Performance guarantees and similar instruments | 3,229 | (654) | 2,575 | 3,117 | (674) | 2,443 | 3,190 | (696) | 2,494 |
| Documentary credits | 6,198 | (1,611) | 4,587 | 7,130 | (1,672) | 5,458 | 7,074 | (1,761) | 5,313 |
| **Total guarantees** | 15,838 | (2,656) | 13,182 | 16,842 | (2,773) | 14,069 | 16,711 | (2,881) | 13,830 |
| **Loan commitments** | 42,222 | (1,349) | 40,874 | 46,063 | (1,460) | 44,603 | 54,430 | (1,513) | 52,917 |
| **Forward starting transactions**[1] | | | | | | | | | |
| Reverse repurchase agreements | 25,218 | | | 25,136 | | | 10,178 | | |
| Securities borrowing agreements | 183 | | | 55 | | | 36 | | |
| Repurchase agreements | 20,890 | | | 18,124 | | | 5,984 | | |

1 Cash to be paid in the future by either UBS or the counterparty.

## Note 15 Changes in organization and disposals

### Restructuring expenses

Restructuring expenses arise from programs that materially change either the scope of business that the Group engages in or the manner in which such business is conducted. Restructuring expenses are necessary to effect such programs and include items such as severance and other personnel-related expenses, duplicate headcount costs, impairment and accelerated depreciation of assets, contract termination costs, consulting fees, and related infrastructure and system costs. These costs are presented in the income statement according to the underlying nature of the expense.

**Net restructuring expenses by business division and Corporate Center unit**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| Wealth Management | 109 | 88 | 86 | 197 | 165 |
| Wealth Management Americas | 25 | 22 | 38 | 47 | 71 |
| Personal & Corporate Banking | 23 | 19 | 31 | 42 | 55 |
| Asset Management | 23 | 20 | 34 | 43 | 54 |
| Investment Bank | 75 | 78 | 163 | 152 | 280 |
| Corporate Center | 8 | 13 | 22 | 21 | 15 |
| *of which: Services* | *4* | *10* | *18* | *15* | *8* |
| *of which: Group ALM* | *1* | *0* | *0* | *1* | *0* |
| *of which: Non-core and Legacy Portfolio* | *2* | *2* | *5* | *4* | *6* |
| Total net restructuring expenses | 263 | 240 | 373 | 503 | 636 |
| *of which: personnel expenses* | *57* | *113* | *187* | *170* | *313* |
| *of which: general and administrative expenses* | *206* | *124* | *187* | *329* | *323* |
| *of which: depreciation and impairment of property, equipment and software* | *0* | *4* | *0* | *4* | *0* |
| *of which: amortization and impairment of intangible assets* | *0* | *0* | *0* | *0* | *0* |

**Net restructuring expenses by personnel expense category**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| Salaries and variable compensation | 49 | 100 | 197 | 149 | 311 |
| Contractors | 9 | 13 | 16 | 22 | 28 |
| Social security | 2 | 2 | 1 | 3 | 3 |
| Pension and other post-employment benefit plans | (4) | (4) | (30) | (8) | (34) |
| Other personnel expenses | 1 | 2 | 2 | 3 | 6 |
| Total net restructuring expenses: personnel expenses | 57 | 113 | 187 | 170 | 313 |

**Net restructuring expenses by general and administrative expense category**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| Occupancy | 22 | 19 | 41 | 40 | 70 |
| Rent and maintenance of IT and other equipment | (6) | 29 | 34 | 23 | 44 |
| Administration | 106 | 5 | 6 | 111 | 10 |
| Travel and entertainment | 2 | 2 | 4 | 3 | 6 |
| Professional fees | 34 | 26 | 36 | 61 | 70 |
| Outsourcing of IT and other services | 49 | 43 | 74 | 92 | 148 |
| Other[1] | (1) | 0 | (8) | (1) | (25) |
| Total net restructuring expenses: general and administrative expenses | 206 | 124 | 187 | 329 | 323 |

1 Mainly comprised of onerous real estate lease contracts.

## Note 15 Changes in organization and disposals (continued)

### Sale of subsidiaries and businesses

In the second quarter of 2017, UBS AG completed the sale of a life insurance subsidiary within Wealth Management. Prior to completion of the sale, the assets and liabilities of this business were presented as a disposal group held for sale within *Other assets* and *Other liabilities* (31 March 2017: CHF 5.1 billion and CHF 5.1 billion, respectively; 31 December 2016: CHF 5.1 billion and CHF 5.2 billion, respectively). The completion of the sale did not have a material effect on the results of Wealth Management in the second quarter of 2017.

### Transfer of shared services functions to UBS Business Solutions AG

In the second quarter of 2017, UBS transferred shared services functions in Switzerland from UBS AG to UBS Business Solutions AG, UBS's Group service company and a wholly owned subsidiary of UBS Group AG. The transfer was recorded retrospectively as of 1 April 2017 and resulted in the derecognition of CHF 706 million of assets and CHF 259 million of liabilities, the granting of a loan of CHF 140 million and a reduction in share premium within equity attributable to shareholders of CHF 307 million for UBS AG consolidated.

Following the transfer, UBS Business Solutions AG charges other legal entities within the Group for services provided, including a markup on costs incurred. For UBS AG, this resulted in a decrease in direct costs recognized as personnel and depreciation expenses, which was more than offset by an increase in general and administrative expenses related to the service charge from UBS Business Solutions AG. In addition, entities within the UBS AG consolidated scope now charge UBS Business Solutions AG for certain services provided to Swiss shared services functions, resulting in an increase in other income for UBS AG. Overall, the new shared services model involving UBS Business Solutions AG resulted in a decrease in UBS AG consolidated net profit of approximately CHF 50 million in the second quarter of 2017.

→ **Refer to the "UBS AG standalone financial information" section of this report for more information**

→ **Refer to the "Recent developments" section of the UBS Group second quarter 2017 report for more information**

## Note 16 Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of UBS AG's foreign operations into Swiss francs.

| | Spot rate | | | | Average rate[1] | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | As of | | | | For the quarter ended | | | Year-to-date | |
| | 30.6.17 | 31.3.17 | 31.12.16 | 30.6.16 | 30.6.17 | 31.3.17 | 30.6.16 | 30.6.17 | 30.6.16 |
| 1 USD | 0.96 | 1.00 | 1.02 | 0.98 | 0.97 | 1.00 | 0.98 | 0.99 | 0.99 |
| 1 EUR | 1.10 | 1.07 | 1.07 | 1.08 | 1.09 | 1.07 | 1.10 | 1.08 | 1.10 |
| 1 GBP | 1.25 | 1.25 | 1.26 | 1.30 | 1.26 | 1.25 | 1.37 | 1.26 | 1.39 |
| 100 JPY | 0.85 | 0.90 | 0.87 | 0.95 | 0.87 | 0.89 | 0.92 | 0.88 | 0.89 |

1 Monthly income statement items of foreign operations with a functional currency other than Swiss franc are translated with month-end rates into Swiss francs. Disclosed average rates for a quarter represent an average of three month-end rates, weighted according to the income and expense volumes of all foreign operations with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for UBS AG.

## Note 17 Supplemental guarantor information required under SEC regulations

### Guarantee of PaineWebber securities

Prior to its acquisition by UBS in 2000, Paine Webber Group Inc. (PaineWebber) was an SEC registrant. Upon acquisition, PaineWebber was merged into UBS Americas Inc., a wholly owned subsidiary of UBS AG. Following the acquisition, UBS AG entered into a full and unconditional guarantee of the senior notes (Debt Securities) issued by PaineWebber. Under the guarantee, if UBS Americas Inc. fails to make any timely payment under the Debt Securities agreements, the holders of the Debt Securities or the Debt Securities trustee may demand payment from UBS AG without first proceeding against UBS Americas Inc.

As of 30 June 2017, CHF 53 million of these Debt Securities were outstanding. These remaining notes mature in 2017 and 2018.

### Guarantee of other securities

Trust preferred securities that were registered under the US Securities Act and were issued by UBS Preferred Funding Trust IV and UBS Preferred Funding Trust V were redeemed in 2016. UBS AG had fully and unconditionally guaranteed these securities.

As of 30 June 2017 and 31 December 2016, UBS Preferred Funding Trust IV and UBS Preferred Funding Trust V had no balances outstanding. The amounts presented for UBS Preferred Funding Trust IV and UBS Preferred Funding Trust V for the period ended 30 June 2016 are eliminated in the Elimination entries column of the supplemental guarantor information disclosures provided in the following tables, as these entities were not consolidated by UBS AG, as UBS AG did not absorb any variability from the performance of these entities.

### Joint liability of UBS Switzerland AG

In 2015, the Personal & Corporate and Wealth Management businesses booked in Switzerland were transferred from UBS AG to UBS Switzerland AG through an asset transfer in accordance with the Swiss Merger Act. Under the terms of the asset transfer agreement, UBS Switzerland AG assumed joint liability for contractual obligations of UBS AG existing on the asset transfer date, including the existing guarantee of aforementioned PaineWebber and other securities. To reflect this joint liability, UBS Switzerland AG is presented in a separate column as a subsidiary co-guarantor.

## Note 17 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated income statement

| *CHF million*<br>For the six months ended 30 June 2017 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|
| **Operating income** | | | | | | |
| Interest income | 4,232 | 1,997 | 1,272 | 749 | (1,268) | 6,982 |
| Interest expense | (3,594) | (311) | (569) | (625) | 1,208 | (3,890) |
| Net interest income | 638 | 1,687 | 703 | 124 | (60) | 3,092 |
| Credit loss (expense) / recovery | (23) | (21) | (2) | 0 | 0 | (46) |
| Net interest income after credit loss expense | 615 | 1,665 | 701 | 124 | (60) | 3,046 |
| Net fee and commission income | 856 | 1,979 | 4,137 | 1,715 | (20) | 8,667 |
| Net trading income | 2,163 | 468 | 286 | 184 | (200) | 2,900 |
| Other income | 2,695 | 116 | 207 | 1,513 | (4,186) | 345 |
| **Total operating income** | 6,329 | 4,228 | 5,331 | 3,536 | (4,466) | 14,958 |
| **Operating expenses** | | | | | | |
| Personnel expenses | 2,418 | 1,046 | 3,172 | 1,018 | 0 | 7,654 |
| General and administrative expenses | 2,229 | 1,591 | 1,451 | 1,392 | (2,952) | 3,712 |
| Depreciation and impairment of property, equipment and software | 348 | 5 | 83 | 37 | 0 | 473 |
| Amortization and impairment of intangible assets | 6 | 0 | 26 | 5 | 0 | 37 |
| **Total operating expenses** | 5,001 | 2,643 | 4,731 | 2,453 | (2,952) | 11,876 |
| **Operating profit / (loss) before tax** | 1,327 | 1,586 | 600 | 1,083 | (1,514) | 3,082 |
| Tax expense / (benefit) | 45 | 319 | 9 | 309 | 0 | 681 |
| Net profit / (loss) | 1,283 | 1,267 | 591 | 774 | (1,514) | 2,401 |
| Net profit / (loss) attributable to preferred noteholders | 46 | 0 | 0 | 0 | 0 | 46 |
| Net profit / (loss) attributable to non-controlling interests | 0 | 0 | 0 | 1 | 0 | 1 |
| **Net profit / (loss) attributable to shareholders** | 1,237 | 1,267 | 591 | 773 | (1,514) | 2,354 |

1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS-standalone information. Refer to the "UBS AG standalone financial information" section of this report for UBS AG standalone financial information prepared in accordance with Swiss GAAP. Refer to "Holding company and significant regulated subsidiaries and sub-groups" at www.ubs.com/investors for UBS Switzerland AG standalone interim financial statements prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 17 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of comprehensive income

| *CHF million*<br>For the six months ended 30 June 2017 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|
| **Comprehensive income attributable to shareholders** | | | | | | |
| Net profit / (loss) | 1,237 | 1,267 | 591 | 773 | (1,514) | 2,354 |
| **Other comprehensive income** | | | | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | | | | |
| Foreign currency translation, net of tax | (198) | 0 | (1,011) | (339) | 212 | (1,337) |
| Financial assets available for sale, net of tax | (21) | (1) | 21 | (2) | (68) | (72) |
| Cash flow hedges, net of tax | (134) | (99) | 0 | 0 | 1 | (233) |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | (354) | (100) | (990) | (342) | 144 | (1,641) |
| **Other comprehensive income that will not be reclassified to the income statement** | | | | | | |
| Defined benefit plans, net of tax | 120 | (16) | 31 | 13 | 18 | 166 |
| Own credit on financial liabilities designated at fair value, net of tax | (254) | 0 | 0 | 0 | 0 | (254) |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | (133) | (16) | 31 | 13 | 18 | (87) |
| **Total other comprehensive income** | (487) | (115) | (960) | (329) | 162 | (1,729) |
| **Total comprehensive income attributable to shareholders** | 749 | 1,151 | (369) | 444 | (1,352) | 625 |
| Total comprehensive income attributable to preferred noteholders | 60 | 0 | 0 | 0 | 0 | 60 |
| Total comprehensive income attributable to non-controlling interests | 0 | 0 | 0 | 1 | 0 | 1 |
| **Total comprehensive income** | 810 | 1,151 | (369) | 445 | (1,352) | 686 |

1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS-standalone information. Refer to the "UBS AG standalone financial information" section of this report for UBS AG standalone financial information prepared in accordance with Swiss GAAP. Refer to "Holding company and significant regulated subsidiaries and sub-groups" at www.ubs.com/investors for UBS Switzerland AG standalone interim financial statements prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 17 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated balance sheet

| *CHF million*<br>As of 30 June 2017 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|
| **Assets** | | | | | | |
| Cash and balances with central banks | 40,187 | 44,036 | 2,801 | 13,046 | 0 | 100,071 |
| Due from banks | 34,818 | 4,760 | 4,023 | 50,378 | (79,589) | 14,390 |
| Cash collateral on securities borrowed | 8,976 | 14,406 | 12,239 | 5,795 | (26,336) | 15,081 |
| Reverse repurchase agreements | 52,229 | 20,013 | 22,984 | 19,760 | (39,662) | 75,324 |
| Trading portfolio assets | 82,089 | 1,600 | 6,210 | 24,503 | (6,664) | 107,738 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *47,502* | *0* | *2,360* | *6,681* | *(23,864)* | *32,679* |
| Positive replacement values | 119,834 | 4,963 | 8,555 | 23,682 | (35,124) | 121,910 |
| Cash collateral receivables on derivative instruments | 19,810 | 916 | 2,354 | 9,394 | (9,787) | 22,687 |
| Loans | 103,347 | 184,141 | 48,822 | 24,627 | (50,571) | 310,366 |
| Financial assets designated at fair value | 30,648 | 12,257 | 2,962 | 8,852 | (3,283) | 51,436 |
| Financial assets available for sale | 5,779 | 1,304 | 6,935 | 4,717 | (4,621) | 14,114 |
| Financial assets held to maturity | 778 | 7,933 | 0 | 0 | 0 | 8,710 |
| Investments in subsidiaries and associates | 49,918 | 22 | 1 | 34 | (49,004) | 972 |
| Property, equipment and software | 6,217 | 40 | 953 | 507 | 0 | 7,716 |
| Goodwill and intangible assets | 286 | 0 | 4,818 | 1,155 | (33) | 6,226 |
| Deferred tax assets | 1,728 | 516 | 8,614 | 1,445 | 0 | 12,303 |
| Other assets | 13,738 | 1,251 | 8,224 | 2,527 | (3,023) | 22,717 |
| **Total assets** | 570,382 | 298,160 | 140,495 | 190,422 | (307,695) | 891,763 |
| **Liabilities** | | | | | | |
| Due to banks | 28,810 | 16,729 | 4,541 | 37,259 | (75,741) | 11,598 |
| Cash collateral on securities lent | 22,542 | 1,722 | 2,828 | 1,781 | (26,336) | 2,538 |
| Repurchase agreements | 23,251 | 5,644 | 11,104 | 10,949 | (39,662) | 11,286 |
| Trading portfolio liabilities | 16,676 | 232 | 4,160 | 10,509 | (6,257) | 25,321 |
| Negative replacement values | 116,344 | 4,678 | 8,677 | 24,452 | (35,124) | 119,027 |
| Cash collateral payables on derivative instruments | 27,913 | 327 | 2,195 | 10,871 | (9,787) | 31,520 |
| Due to customers | 113,696 | 246,050 | 76,564 | 60,711 | (58,712) | 438,309 |
| Financial liabilities designated at fair value | 53,795 | 0 | 0 | 3,943 | (3,523) | 54,215 |
| Debt issued | 82,354 | 8,404 | 61 | 286 | (347) | 90,757 |
| Provisions | 1,113 | 168 | 1,607 | 279 | 0 | 3,167 |
| Other liabilities | 28,766 | 2,033 | 10,405 | 13,458 | (3,066) | 51,596 |
| **Total liabilities** | 515,259 | 285,988 | 122,144 | 174,499 | (258,555) | 839,335 |
| **Equity attributable to shareholders** | 54,466 | 12,171 | 18,352 | 15,887 | (49,141) | 51,735 |
| Equity attributable to preferred noteholders | 657 | 0 | 0 | 0 | 0 | 657 |
| Equity attributable to non-controlling interests | 0 | 0 | 0 | 37 | 0 | 37 |
| **Total equity** | 55,123 | 12,171 | 18,352 | 15,923 | (49,141) | 52,428 |
| **Total liabilities and equity** | 570,382 | 298,160 | 140,495 | 190,422 | (307,695) | 891,763 |

1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS-standalone information. Refer to the "UBS AG standalone financial information" section of this report for UBS AG standalone financial information prepared in accordance with Swiss GAAP. Refer to "Holding company and significant regulated subsidiaries and sub-groups" at www.ubs.com/investors for UBS Switzerland AG standalone interim financial statements prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 17 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of cash flows

| *CHF million*<br>For the six months ended 30 June 2017 | UBS AG[1] | UBS Switzerland AG[1] | UBS Americas Inc.[1] | Other subsidiaries[1] | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Net cash flow from / (used in) operating activities** | (19,178) | (1,291) | (4,854) | 1,854 | (23,469) |
| **Cash flow from / (used in) investing activities** | | | | | |
| Purchase of subsidiaries, associates and intangible assets | 0 | 0 | (5) | 0 | (5) |
| Disposal of subsidiaries, associates and intangible assets[2] | 95 | 0 | 0 | 0 | 95 |
| Purchase of property, equipment and software | (466) | (25) | (155) | (41) | (688) |
| Disposal of property, equipment and software | 0 | 0 | 22 | 0 | 23 |
| Purchase of financial assets available for sale | (180) | 0 | (1,807) | (2,743) | (4,729) |
| Disposal and redemption of financial assets available for sale | 2,607 | 753 | 1,164 | 1,625 | 6,150 |
| Net (purchase) / redemption of financial assets held to maturity | (288) | 456 | 0 | 0 | 168 |
| **Net cash flow from / (used in) investing activities** | 1,768 | 1,184 | (780) | (1,158) | 1,014 |
| **Cash flow from / (used in) financing activities** | | | | | |
| Net short-term debt issued / (repaid) | 18,832 | 9 | 0 | (103) | 18,738 |
| Distributions paid on UBS shares | (2,250) | 0 | 0 | 0 | (2,250) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 24,112 | 573 | 0 | 145 | 24,829 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (22,685) | (506) | (76) | (140) | (23,407) |
| Dividends paid and repayments of preferred notes | (46) | 0 | 0 | 0 | (46) |
| Net changes of non-controlling interests | 0 | 0 | 0 | (5) | (5) |
| Net activity in investments in subsidiaries | 663 | (191) | 296 | (768) | 0 |
| **Net cash flow from / (used in) financing activities** | 18,626 | (115) | 221 | (871) | 17,861 |
| | | | | | |
| **Total cash flow** | | | | | |
| **Cash and cash equivalents at the beginning of the period** | 44,269 | 46,629 | 11,892 | 18,317 | 121,107 |
| Net cash flow from / (used in) operating, investing and financing activities | 1,217 | (223) | (5,414) | (174) | (4,594) |
| Effects of exchange rate differences on cash and cash equivalents | (1,076) | (14) | (513) | 100 | (1,502) |
| **Cash and cash equivalents at the end of the period[3]** | 44,410 | 46,392 | 5,965 | 18,243 | 115,010 |
| *of which: cash and balances with central banks* | *40,122* | *44,036* | *2,801* | *13,046* | *100,006* |
| *of which: due from banks* | *2,613* | *2,350* | *3,101* | *4,583* | *12,646* |
| *of which: money market paper[4]* | *1,674* | *6* | *63* | *614* | *2,358* |

1 Cash flows generally represent a third-party view from a UBS AG consolidated perspective. 2 Includes dividends received from associates. 3 Comprises balances with an original maturity of three months or less. CHF 2,576 million of cash and cash equivalents were restricted. 4 Money market paper is included in the balance sheet under Trading portfolio assets, Financial assets available for sale and Financial assets designated at fair value.

## Note 17 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated income statement

| *CHF million*<br>For the six months ended 30 June 2016 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Operating income** | | | | | | | |
| Interest income | 4,258 | 2,069 | 1,005 | 25 | 542 | (946) | 6,953 |
| Interest expense | (3,708) | (325) | (515) | | (453) | 913 | (4,088) |
| Net interest income | 550 | 1,745 | 490 | 25 | 89 | (33) | 2,866 |
| Credit loss (expense) / recovery | (6) | 4 | (4) | | (3) | 0 | (9) |
| Net interest income after credit loss expense | 544 | 1,749 | 487 | 25 | 86 | (33) | 2,857 |
| Net fee and commission income | 699 | 1,907 | 3,910 | | 1,712 | (21) | 8,208 |
| Net trading income | 2,444 | 356 | 201 | | 181 | (280) | 2,902 |
| Other income | 3,583 | 243 | 270 | | 106 | (3,914) | 288 |
| **Total operating income** | 7,270 | 4,255 | 4,868 | 25 | 2,085 | (4,248) | 14,254 |
| **Operating expenses** | | | | | | | |
| Personnel expenses | 2,910 | 1,036 | 3,127 | | 778 | 0 | 7,852 |
| General and administrative expenses | 2,484 | 1,724 | 1,369 | | 1,189 | (3,327) | 3,438 |
| Depreciation and impairment of property, equipment and software | 348 | 6 | 86 | | 42 | 0 | 481 |
| Amortization and impairment of intangible assets | 11 | 0 | 32 | | 4 | 0 | 47 |
| **Total operating expenses** | 5,753 | 2,765 | 4,614 | | 2,013 | (3,327) | 11,818 |
| **Operating profit / (loss) before tax** | 1,517 | 1,489 | 254 | 25 | 72 | (921) | 2,436 |
| Tax expense / (benefit) | 116 | 315 | 20 | | 187 | (4) | 634 |
| Net profit / (loss) | 1,401 | 1,174 | 234 | 25 | (116) | (916) | 1,802 |
| Net profit / (loss) attributable to preferred noteholders | 78 | 0 | 0 | 31 | 0 | (31) | 78 |
| Net profit / (loss) attributable to non-controlling interests | 0 | 0 | 0 | | 1 | 0 | 1 |
| **Net profit / (loss) attributable to shareholders** | 1,323 | 1,174 | 234 | (6) | (117) | (886) | 1,723 |

1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS-standalone information. Refer to the "UBS AG standalone financial information" section of this report for UBS AG standalone financial information prepared in accordance with Swiss GAAP. Refer to "Holding company and significant regulated subsidiaries and sub-groups" at www.ubs.com/investors for UBS Switzerland AG standalone interim financial statements prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 17 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of comprehensive income

| *CHF million*<br>For the six months ended 30 June 2016 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | UBS Preferred Funding Trust IV & V | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|---|
| **Comprehensive income attributable to shareholders** | | | | | | | |
| Net profit / (loss) | 1,323 | 1,174 | 234 | (6) | (117) | (886) | 1,723 |
| **Other comprehensive income** | | | | | | | |
| **Other comprehensive income that may be reclassified to the income statement** | | | | | | | |
| Foreign currency translation, net of tax | 141 | 0 | (380) | | (597) | 345 | (491) |
| Financial assets available for sale, net of tax | (109) | (21) | 66 | | (21) | 178 | 93 |
| Cash flow hedges, net of tax | 342 | 333 | 0 | | 0 | 18 | 694 |
| **Total other comprehensive income that may be reclassified to the income statement, net of tax** | 374 | 312 | (314) | 0 | (618) | 542 | 296 |
| **Other comprehensive income that will not be reclassified to the income statement** | | | | | | | |
| Defined benefit plans, net of tax | (227) | 10 | (99) | | (55) | (10) | (381) |
| Own credit on financial liabilities designated at fair value, net of tax | (105) | | | | | | (105) |
| **Total other comprehensive income that will not be reclassified to the income statement, net of tax** | (332) | 10 | (99) | 0 | (55) | (10) | (486) |
| **Total other comprehensive income** | 42 | 322 | (413) | 0 | (673) | 531 | (190) |
| **Total comprehensive income attributable to shareholders** | 1,365 | 1,496 | (179) | (6) | (790) | (355) | 1,533 |
| Total comprehensive income attributable to preferred noteholders | 357 | 0 | 0 | 0 | 0 | 0 | 357 |
| Total comprehensive income attributable to non-controlling interests | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total comprehensive income attributable to UBS Preferred Funding Trust IV & V | 0 | 0 | 0 | 313 | 0 | (313) | 0 |
| **Total comprehensive income** | 1,722 | 1,496 | (179) | 307 | (790) | (668) | 1,890 |

1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS-standalone information. Refer to the "UBS AG standalone financial information" section of this report for UBS AG standalone financial information prepared in accordance with Swiss GAAP. Refer to "Holding company and significant regulated subsidiaries and sub-groups" at www.ubs.com/investors for UBS Switzerland AG standalone interim financial statements prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 17 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated balance sheet

| *CHF million*<br>As of 31 December 2016 | UBS AG (standalone)[1] | UBS Switzerland AG (standalone)[1] | UBS Americas Inc.[2] | Other subsidiaries[2] | Elimination entries | UBS AG (consolidated) |
|---|---|---|---|---|---|---|
| **Assets** | | | | | | |
| Cash and balances with central banks | 40,538 | 44,528 | 8,925 | 13,775 | 0 | 107,767 |
| Due from banks | 30,008 | 3,886 | 3,759 | 33,420 | (57,948) | 13,125 |
| Cash collateral on securities borrowed | 6,561 | 6,657 | 13,173 | 5,004 | (16,284) | 15,111 |
| Reverse repurchase agreements | 52,782 | 19,273 | 14,406 | 7,507 | (27,722) | 66,246 |
| Trading portfolio assets | 74,172 | 1,673 | 4,702 | 22,729 | (6,615) | 96,661 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | *39,596* | *0* | *1,960* | *5,850* | *(17,145)* | *30,260* |
| Positive replacement values | 156,375 | 5,458 | 9,496 | 27,231 | (40,149) | 158,411 |
| Cash collateral receivables on derivative instruments | 22,117 | 913 | 2,701 | 12,068 | (11,135) | 26,664 |
| Loans | 94,506 | 184,241 | 50,150 | 41,199 | (63,091) | 307,004 |
| Financial assets designated at fair value | 35,498 | 16,416 | 5,371 | 11,589 | (3,849) | 65,024 |
| Financial assets available for sale | 8,104 | 2,046 | 6,593 | 3,469 | (4,536) | 15,676 |
| Financial assets held to maturity | 527 | 8,762 | 0 | 0 | 0 | 9,289 |
| Investments in subsidiaries and associates | 49,904 | 22 | 1 | 27 | (48,991) | 963 |
| Property, equipment and software | 6,961 | 19 | 1,075 | 241 | 0 | 8,297 |
| Goodwill and intangible assets | 297 | 0 | 5,130 | 1,161 | (32) | 6,556 |
| Deferred tax assets | 1,801 | 601 | 9,148 | 1,595 | 0 | 13,144 |
| Other assets | 10,645 | 1,526 | 9,071 | 7,241 | (3,071) | 25,412 |
| **Total assets** | 590,796 | 296,022 | 143,702 | 188,257 | (283,424) | 935,353 |
| **Liabilities** | | | | | | |
| Due to banks | 27,992 | 13,204 | 5,288 | 32,733 | (68,572) | 10,645 |
| Cash collateral on securities lent | 13,193 | 1,518 | 2,549 | 1,841 | (16,284) | 2,818 |
| Repurchase agreements | 16,944 | 5,385 | 2,710 | 9,295 | (27,722) | 6,612 |
| Trading portfolio liabilities | 15,535 | 154 | 3,643 | 9,780 | (6,287) | 22,825 |
| Negative replacement values | 151,274 | 4,982 | 9,491 | 28,213 | (40,149) | 153,810 |
| Cash collateral payables on derivative instruments | 31,585 | 109 | 2,409 | 12,504 | (11,135) | 35,472 |
| Due to customers | 118,934 | 248,731 | 85,702 | 53,474 | (56,641) | 450,199 |
| Financial liabilities designated at fair value | 54,504 | 0 | 1 | 4,559 | (4,047) | 55,017 |
| Debt issued | 70,558 | 8,330 | 145 | 401 | (437) | 78,998 |
| Provisions | 1,483 | 186 | 2,168 | 312 | 21 | 4,169 |
| Other liabilities | 31,879 | 2,212 | 11,100 | 18,352 | (3,099) | 60,443 |
| **Total liabilities** | 533,881 | 284,811 | 125,206 | 171,464 | (234,353) | 881,009 |
| **Equity attributable to shareholders** | 56,273 | 11,211 | 18,496 | 16,754 | (49,072) | 53,662 |
| Equity attributable to preferred noteholders | 642 | 0 | 0 | 0 | 0 | 642 |
| Equity attributable to non-controlling interests | 0 | 0 | 0 | 40 | 0 | 40 |
| **Total equity** | 56,915 | 11,211 | 18,496 | 16,793 | (49,072) | 54,343 |
| **Total liabilities and equity** | 590,796 | 296,022 | 143,702 | 188,257 | (283,424) | 935,353 |

1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS-standalone information. Refer to the "UBS AG standalone financial information" section of this report for UBS AG standalone financial information prepared in accordance with Swiss GAAP. Refer to "Holding company and significant regulated subsidiaries and sub-groups" at www.ubs.com/investors for UBS Switzerland AG standalone interim financial statements prepared in accordance with Swiss GAAP. 2 Amounts presented in these columns serve as a basis for preparing UBS AG consolidated financial statements in accordance with IFRS.

## Note 17 Supplemental guarantor information required under SEC regulations (continued)

### Supplemental guarantor consolidated statement of cash flows

| *CHF million*<br>For the six months ended 30 June 2016 | UBS AG[1] | UBS Switzerland AG[1] | UBS Americas Inc.[1] | Other subsidiaries[1] | UBS AG (consolidated) |
|---|---|---|---|---|---|
| **Net cash flow from / (used in) operating activities** | (38,125) | (5,369) | 2,215 | 1,743 | (39,536) |
| **Cash flow from / (used in) investing activities** | | | | | |
| Purchase of subsidiaries, associates and intangible assets | 0 | 0 | 0 | (23) | (23) |
| Disposal of subsidiaries, associates and intangible assets[2] | 71 | 0 | 0 | 0 | 72 |
| Purchase of property, equipment and software | (742) | (11) | (145) | (35) | (934) |
| Disposal of property, equipment and software | 173 | 0 | 3 | 17 | 193 |
| Purchase of financial assets available for sale | (4,059) | (522) | (1,200) | (1,582) | (7,363) |
| Disposal and redemption of financial assets available for sale | 25,740 | 19,134 | 715 | 5,523 | 51,112 |
| Net (purchase) / redemption of financial assets held to maturity | 0 | (4,878) | 0 | 0 | (4,878) |
| **Net cash flow from / (used in) investing activities** | 21,183 | 13,722 | (627) | 3,899 | 38,177 |
| **Cash flow from / (used in) financing activities** | | | | | |
| Net short-term debt issued / (repaid) | 11,124 | (9) | (1,319) | 0 | 9,797 |
| Distributions paid on UBS shares | (3,434) | 0 | 0 | 0 | (3,434) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 17,906 | 233 | 0 | 718 | 18,857 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (15,796) | (354) | (7) | (1,208) | (17,365) |
| Dividends paid and repayments of preferred notes | (1,366) | 0 | 0 | 0 | (1,366) |
| Net changes of non-controlling interests | 0 | 0 | 0 | (5) | (5) |
| Net activity in investments in subsidiaries | (1,655) | 0 | 0 | 1,655 | 0 |
| **Net cash flow from / (used in) financing activities** | 6,779 | (129) | (1,326) | 1,160 | 6,484 |
| | | | | | |
| **Total cash flow** | | | | | |
| **Cash and cash equivalents at the beginning of the period** | 47,902 | 40,246 | 7,084 | 7,731 | 102,962 |
| Net cash flow from / (used in) operating, investing and financing activities | (10,163) | 8,224 | 262 | 6,802 | 5,125 |
| Effects of exchange rate differences on cash and cash equivalents | (726) | (53) | (351) | (163) | (1,293) |
| **Cash and cash equivalents at the end of the period[3]** | 37,014 | 48,416 | 6,995 | 14,370 | 106,795 |
| *of which: cash and balances with central banks* | *34,150* | *46,418* | *4,093* | *9,519* | *94,181* |
| *of which: due from banks* | *2,291* | *1,795* | *2,793* | *4,734* | *11,613* |
| *of which: money market paper[4]* | *572* | *203* | *108* | *117* | *1,001* |

1 Cash flows generally represent a third-party view from a UBS AG consolidated perspective. As a consequence, the non-consolidated UBS Preferred Funding Trusts IV and V are not presented in this table. During the six months ended 30 June 2016, these trusts redeemed all of the preferred notes issued by them entailing cash outflows of CHF 1,317 million for principal and dividend amounts paid to preferred note holders and equivalent cash inflows from onward lending activities to UBS AG. 2 Includes dividends received from associates. 3 Comprises balances with an original maturity of three months or less. CHF 3,631 million of cash and cash equivalents were restricted. 4 Money market paper is included in the balance sheet under Trading portfolio assets, Financial assets available for sale and Financial assets designated at fair value.

## Appendix 8 – Excerpts from the UBS Group Third Quarter 2017 Report

It should be noted that the term "pro-forma" as used in this Appendix 8 does not refer to the term "pro forma financial information" within the meaning of Regulation (EC) 809/2004.

# Recent developments

## Regulatory and legal developments

### Postponed implementation of NSFR and revision of LCR in Switzerland

In September 2017, the Swiss Federal Department of Finance informed banks that the net stable funding ratio (NSFR) requirements will not be finalized in 2017. Taking international developments into account, the Swiss Federal Council is expected to decide on next steps at the end of 2018.

We expect that proposed changes to liquidity coverage ratio (LCR) requirements will take effect on 1 January 2018, subject to approval by the Swiss Federal Council; however, the final version of the changes has not yet been published.

→ **Refer to the "Balance sheet, liquidity and funding management" section of this report for more information**

### FINMA proposes changes to AML Ordinance

In response to the findings from the evaluation conducted by the Financial Action Task Force, FINMA launched a consultation on revisions to its Anti-Money Laundering (AML) Ordinance. The proposed changes include the requirement to regularly update client information and to verify information on beneficial ownership for all clients, including low-risk clients. The consultation period ended in October 2017 and the amended ordinance is expected to enter into force in 2019.

### Implementation of AEI in Switzerland

In September 2017, the National Council, the Swiss Parliament's lower house, approved the introduction of automatic exchange of information (AEI) with an additional 39 jurisdictions, extending the standard to include most of the G20 and OECD member countries. Subject to approval by the Council of States, the first exchange of financial data with these countries is expected in 2019 based on 2018 data. Furthermore, the Swiss Parliament has introduced a mandatory review before the first actual transmission of financial data to ensure that partner jurisdictions comply with the conditions of data exchange. In addition, the Swiss government plans to introduce AEI with Singapore and Hong Kong according to the aforementioned timeline, for which parliamentary committees have already given the necessary pre-approval. In connection with AEI, as well as with other changes in tax regimes or their enforcement, we have experienced outflows of cross-border client assets.

### Swiss Federal Council introduces new fintech regulation and FINMA consults on proposed implementation

In August 2017, amendments to the Swiss Banking Ordinance became effective. Firms without a banking license are allowed to hold up to an aggregate amount of CHF 1 million in deposits from clients, and an exemption for funds held in settlement accounts is extended to a maximum of 60 days from previously 7 days. These changes are intended to reduce barriers to entry for fintech firms and enhance the competitiveness of the Swiss financial center. FINMA has proposed amendments to its Circular 2008/3 "Public deposits with non-banks" to adapt its supervisory practice to these changes. In addition, the Swiss Parliament is considering amendments to the Banking Act that would create a new banking license category with simplified requirements for companies accepting up to CHF 100 million in deposits from clients.

### Commencement of negotiations on the UK's withdrawal from the EU

Formal negotiations with respect to the UK's withdrawal from the EU have commenced. The negotiations are expected to address the terms of the withdrawal as well as the EU-UK relationship going forward, including possible transitional arrangements. The UK is still expected to leave the EU in March 2019, subject to a possible transition period. We intend to begin implementation of contingency measures in early 2018.

### US Department of Labor proposes further delay on Fiduciary Rule

Since 9 June 2017, UBS has been operating under the US Department of Labor (DOL) Fiduciary Rule. The rule expands the circumstances that cause a person to become a fiduciary subject to the Employee Retirement Income Security Act of 1974 (ERISA) in relation to corporate and individual retirement plans. Under ERISA, UBS is required to adhere to strict standards of prudence and loyalty when dealing with affected retirement accounts and is prohibited from entering into transactions where there is a conflict of interest unless an exemption applies. Exemptions applicable to our Wealth Management Americas business under the Fiduciary Rule require compliance with impartial conduct principles. Moreover, the exemptions require compliance with significant additional technical conditions. The DOL has deferred the compliance date for these technical conditions for a transition period that is currently scheduled to end on 1 January 2018. In August 2017, the DOL proposed to extend the transition period and delay the applicability of these technical conditions to 1 July 2019 while it continues to consider potential changes to the exemptions. We would be required to make significant investments in order to comply with these technical conditions.

### Regulators and central banks support alternative reference rates

Efforts to transition from the London Interbank Offered Rate (LIBOR) benchmarks to alternative benchmark rates are under way in several jurisdictions.

The UK Financial Conduct Authority announced in July 2017 that it will not intervene beyond 2021 to sustain LIBOR and urged users to plan the transition to alternative reference rates. In April 2017, the Working Group on Sterling Risk-Free Reference Rates selected the Sterling Overnight Index Average as the recommended British pound risk-free rate.

In the US, the Alternative Reference Rates Committee has recommended a broad Treasuries repo financing rate as the new US dollar secured risk-free rate, which is expected to be available in 2018. The Federal Reserve Bank of New York has launched a consultation on the construction of this and two other Treasury repurchase agreement-derived rates.

The European Central Bank (ECB) has also recently announced its decision to develop, before 2020, a euro unsecured overnight interest rate based on transaction data already reported to the ECB by banks.

We have significant contractual rights and obligations referenced to LIBOR and other benchmark rates. Discontinuance of, or changes to, benchmark rates as a result of these proposals or other initiatives or investigations, as well as uncertainty about the timing and manner of implementation of such changes or discontinuance, may require adjustments to agreements that are referenced to current benchmarked rates by us, our clients and other market participants.

### Implementation of margin requirements for non-cleared OTC derivatives

The G20 commitments on derivatives call for adoption of mandatory exchange of initial and variation margin for non-cleared over-the-counter (OTC) derivative transactions (margin rules). Margin rules for the largest counterparties (phase 1 counterparties) have been in effect in major jurisdictions since early 2017. In September 2017, initial and variation margin requirements for the next group of counterparties (phase 2 counterparties), including significant numbers of end users, came into force in Canada, the US, the EU, Switzerland, Japan and other major jurisdictions in Asia. Additional requirements will continue to be implemented through 2020 in subsequent phases. Implementation of non-cleared margin requirements will likely continue to require significant operational effort by us and our clients.

# UBS Group AG interim consolidated financial statements (unaudited)

## Income statement

| | | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|---|
| *CHF million, except per share data* | Note | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| Interest income | | 3,607 | 3,627 | 3,305 | (1) | 9 | 10,586 | 10,264 |
| Interest expense | | (1,865) | (2,210) | (1,530) | (16) | 22 | (5,731) | (5,613) |
| Net interest income | | 1,743 | 1,417 | 1,775 | 23 | (2) | 4,855 | 4,652 |
| Credit loss (expense) / recovery | | 7 | (46) | (4) | | | (39) | (13) |
| Net interest income after credit loss expense | | 1,750 | 1,371 | 1,771 | 28 | (1) | 4,816 | 4,638 |
| Net fee and commission income | 3 | 4,244 | 4,295 | 4,056 | (1) | 5 | 12,892 | 12,236 |
| Net trading income | | 1,089 | 1,456 | 1,098 | (25) | (1) | 3,985 | 4,002 |
| Other income | 4 | 62 | 147 | 104 | (58) | (40) | 252 | 390 |
| Total operating income | | 7,145 | 7,269 | 7,029 | (2) | 2 | 21,946 | 21,266 |
| Personnel expenses | 5 | 3,893 | 4,014 | 3,942 | (3) | (1) | 11,967 | 11,852 |
| General and administrative expenses | 6 | 1,760 | 1,488 | 1,939 | 18 | (9) | 4,754 | 5,269 |
| Depreciation and impairment of property, equipment and software | | 256 | 249 | 248 | 3 | 3 | 761 | 731 |
| Amortization and impairment of intangible assets | | 16 | 16 | 23 | 0 | (30) | 53 | 70 |
| Total operating expenses | | 5,924 | 5,767 | 6,152 | 3 | (4) | 17,534 | 17,922 |
| Operating profit / (loss) before tax | | 1,221 | 1,502 | 877 | (19) | 39 | 4,412 | 3,344 |
| Tax expense / (benefit) | 7 | 272 | 327 | 49 | (17) | 455 | 974 | 695 |
| Net profit / (loss) | | 948 | 1,175 | 829 | (19) | 14 | 3,438 | 2,649 |
| Net profit / (loss) attributable to non-controlling interests | | 2 | 1 | 1 | 100 | 100 | 49 | 81 |
| **Net profit / (loss) attributable to shareholders** | | 946 | 1,174 | 827 | (19) | 14 | 3,389 | 2,568 |
| **Earnings per share (CHF)** | | | | | | | | |
| Basic | 8 | 0.25 | 0.32 | 0.22 | (22) | 14 | 0.91 | 0.69 |
| Diluted | 8 | 0.25 | 0.31 | 0.22 | (19) | 14 | 0.88 | 0.67 |

## Statement of comprehensive income

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| **Comprehensive income attributable to shareholders** | | | | | |
| Net profit / (loss) | 946 | 1,174 | 827 | 3,389 | 2,568 |
| Other comprehensive income that may be reclassified to the income statement | | | | | |
| Foreign currency translation | | | | | |
| Foreign currency translation movements, before tax | 376 | (994) | (172) | (989) | (815) |
| Foreign exchange amounts reclassified to the income statement from equity | 2 | 21 | 4 | 27 | 153 |
| Income tax relating to foreign currency translation movements | 226 | 1 | 107 | 229 | 110 |
| Subtotal foreign currency translation, net of tax | 603 | (971) | (61) | (733) | (553) |
| Financial assets available for sale | | | | | |
| Net unrealized gains / (losses) on financial assets available for sale, before tax | 57 | 10 | 6 | 110 | 375 |
| Impairment charges reclassified to the income statement from equity | 0 | (1) | 1 | 13 | 4 |
| Realized gains reclassified to the income statement from equity | (13) | (135) | (18) | (156) | (273) |
| Realized losses reclassified to the income statement from equity | 2 | 5 | 0 | 9 | 19 |
| Income tax relating to net unrealized gains / (losses) on financial assets available for sale | (22) | 6 | (9) | (24) | (53) |
| Subtotal financial assets available for sale, net of tax | 24 | (115) | (21) | (47) | 72 |
| Cash flow hedges | | | | | |
| Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax | 60 | 165 | (175) | 195 | 1,270 |
| Net (gains) / losses reclassified to the income statement from equity | (209) | (211) | (235) | (640) | (812) |
| Income tax relating to cash flow hedges | 30 | 11 | 84 | 93 | (90) |
| Subtotal cash flow hedges, net of tax | (118) | (35) | (326) | (351) | 367 |
| Total other comprehensive income that may be reclassified to the income statement, net of tax | 509 | (1,121) | (408) | (1,132) | (113) |
| Other comprehensive income that will not be reclassified to the income statement | | | | | |
| Defined benefit plans | | | | | |
| Gains / (losses) on defined benefit plans, before tax | 129 | 107 | (186) | 285 | (575) |
| Income tax relating to defined benefit plans | (5) | 1 | (23) | (1) | (16) |
| Subtotal defined benefit plans, net of tax | 123 | 108 | (209) | 283 | (590) |
| Own credit on financial liabilities designated at fair value | | | | | |
| Gains / (losses) from own credit on financial liabilities designated at fair value, before tax | (36) | (72) | (30) | (288) | (135) |
| Income tax relating to own credit on financial liabilities designated at fair value | 0 | (1) | 4 | (1) | 5 |
| Subtotal own credit on financial liabilities designated at fair value, net of tax | (36) | (73) | (25) | (290) | (130) |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 87 | 35 | (235) | (7) | (720) |
| Total other comprehensive income | 596 | (1,086) | (643) | (1,138) | (834) |
| Total comprehensive income attributable to shareholders | 1,543 | 89 | 184 | 2,251 | 1,734 |

**Statement of comprehensive income (continued)**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| **Comprehensive income attributable to non-controlling interests** | | | | | |
| Net profit / (loss) | 2 | 1 | 1 | 49 | 81 |
| Other comprehensive income that will not be reclassified to the income statement | | | | | |
| Foreign currency translation movements, before tax | 29 | 14 | 5 | 43 | 284 |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | 29 | 14 | 5 | 43 | 284 |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 29 | 14 | 5 | 43 | 284 |
| Total comprehensive income attributable to non-controlling interests | 31 | 14 | 7 | 92 | 364 |
| **Total comprehensive income** | | | | | |
| Net profit / (loss) | 948 | 1,175 | 829 | 3,438 | 2,649 |
| Other comprehensive income | 626 | (1,072) | (637) | (1,095) | (550) |
| *of which: other comprehensive income that may be reclassified to the income statement* | *509* | *(1,121)* | *(408)* | *(1,132)* | *(113)* |
| *of which: other comprehensive income that will not be reclassified to the income statement* | *116* | *49* | *(229)* | *36* | *(437)* |
| Total comprehensive income | 1,574 | 103 | 191 | 2,343 | 2,099 |

**Balance sheet**

| | | | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.9.17 | 30.6.17 | 31.12.16 | 30.6.17 | 31.12.16 |
| **Assets** | | | | | | |
| Cash and balances with central banks | | 94,563 | 100,071 | 107,767 | (6) | (12) |
| Due from banks | | 15,047 | 14,420 | 13,156 | 4 | 14 |
| Cash collateral on securities borrowed | | 16,614 | 15,081 | 15,111 | 10 | 10 |
| Reverse repurchase agreements | | 87,889 | 75,324 | 66,246 | 17 | 33 |
| Trading portfolio assets | 9 | 114,297 | 107,659 | 96,575 | 6 | 18 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | | *33,418* | *32,679* | *30,260* | *2* | *10* |
| Positive replacement values | 9, 10 | 119,462 | 121,910 | 158,411 | (2) | (25) |
| Cash collateral receivables on derivative instruments | 10 | 24,928 | 22,687 | 26,664 | 10 | (7) |
| Loans | | 314,536 | 308,280 | 306,325 | 2 | 3 |
| Financial assets designated at fair value | 9 | 50,738 | 51,787 | 65,353 | (2) | (22) |
| Financial assets available for sale | 9 | 13,043 | 14,114 | 15,676 | (8) | (17) |
| Financial assets held to maturity | | 9,005 | 8,710 | 9,289 | 3 | (3) |
| Investments in associates | | 987 | 972 | 963 | 2 | 2 |
| Property, equipment and software | | 8,647 | 8,424 | 8,331 | 3 | 4 |
| Goodwill and intangible assets | | 6,388 | 6,226 | 6,556 | 3 | (3) |
| Deferred tax assets | | 12,670 | 12,372 | 13,155 | 2 | (4) |
| Other assets | 11 | 24,783 | 22,793 | 25,436 | 9 | (3) |
| **Total assets** | | 913,599 | 890,831 | 935,016 | 3 | (2) |

## Balance sheet (continued)

| | | | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.9.17 | 30.6.17 | 31.12.16 | 30.6.17 | 31.12.16 |
| **Liabilities** | | | | | | |
| Due to banks | | 10,639 | 11,598 | 10,645 | (8) | 0 |
| Cash collateral on securities lent | | 2,435 | 2,538 | 2,818 | (4) | (14) |
| Repurchase agreements | | 17,535 | 11,286 | 6,612 | 55 | 165 |
| Trading portfolio liabilities | 9 | 30,620 | 25,320 | 22,824 | 21 | 34 |
| Negative replacement values | 9, 10 | 115,457 | 119,027 | 153,810 | (3) | (25) |
| Cash collateral payables on derivative instruments | 10 | 31,899 | 31,520 | 35,472 | 1 | (10) |
| Due to customers | | 401,711 | 404,303 | 423,672 | (1) | (5) |
| Financial liabilities designated at fair value | 9, 12 | 56,585 | 54,215 | 55,017 | 4 | 3 |
| Debt issued | 13 | 133,497 | 121,727 | 103,649 | 10 | 29 |
| Provisions | 14 | 3,136 | 3,207 | 4,174 | (2) | (25) |
| Other liabilities | 11 | 55,848 | 53,653 | 62,020 | 4 | (10) |
| **Total liabilities** | | 859,364 | 838,394 | 880,714 | 3 | (2) |
| **Equity** | | | | | | |
| Share capital | | 385 | 385 | 385 | 0 | 0 |
| Share premium | | 25,782 | 25,600 | 28,254 | 1 | (9) |
| Treasury shares | | (2,155) | (2,180) | (2,249) | (1) | (4) |
| Retained earnings | | 35,107 | 34,074 | 31,725 | 3 | 11 |
| Other comprehensive income recognized directly in equity, net of tax | | (5,626) | (6,135) | (4,494) | (8) | 25 |
| **Equity attributable to shareholders** | | 53,493 | 51,744 | 53,621 | 3 | 0 |
| Equity attributable to non-controlling interests | | 743 | 693 | 682 | 7 | 9 |
| **Total equity** | | 54,236 | 52,437 | 54,302 | 3 | 0 |
| **Total liabilities and equity** | | 913,599 | 890,831 | 935,016 | 3 | (2) |

## Statement of changes in equity

| *CHF million* | Share capital | Share premium | Treasury shares | Retained earnings |
|---|---|---|---|---|
| **Balance as of 1 January 2016** | **385** | **31,164** | **(1,693)** | **29,504** |
| Issuance of share capital | 0 | | | |
| Acquisition of treasury shares | | | (1,374) | |
| Delivery of treasury shares under share-based compensation plans | | (645) | 742 | |
| Other disposal of treasury shares | | (2) | 35 | |
| Premium on shares issued and warrants exercised | | 3 | | |
| Share-based compensation expensed in the income statement | | 645 | | |
| Tax (expense) / benefit | | 11 | | |
| Dividends | | (3,164)[2] | | |
| Preferred notes | | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | 43 | | (44) |
| Total comprehensive income for the period | | | | 1,848 |
| *of which: net profit / (loss)* | | | | *2,568* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *(590)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | | *(130)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| **Balance as of 30 September 2016** | **385** | **28,058** | **(2,291)** | **31,308** |
| | | | | |
| **Balance as of 1 January 2017** | 385 | 28,254 | (2,249) | 31,725 |
| Issuance of share capital | 0 | | | |
| Acquisition of treasury shares | | | (883) | |
| Delivery of treasury shares under share-based compensation plans | | (823) | 920 | |
| Other disposal of treasury shares | | | 57 | |
| Premium on shares issued and warrants exercised | | 13 | | |
| Share-based compensation expensed in the income statement | | 543 | | |
| Tax (expense) / benefit | | 24 | | |
| Dividends | | (2,229)[2] | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (1) | | |
| Total comprehensive income for the period | | | | 3,382 |
| *of which: net profit / (loss)* | | | | *3,389* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | | *283* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | | *(290)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | | |
| **Balance as of 30 September 2017** | 385 | 25,782 | (2,155) | 35,107 |

1 Excludes defined benefit plans and own credit that are recorded directly in Retained earnings. 2 Reflects the payment of an ordinary cash dividend of CHF 0.60 (2016: CHF 0.60 ordinary cash dividend and CHF 0.25 special cash dividend) per dividend-bearing share out of the capital contribution reserve.

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: foreign currency translation* | *of which: financial assets available for sale* | *of which: cash flow hedges* | Total equity attributable to shareholders | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|
| **(4,047)** | *(5,857)* | *172* | *1,638* | **55,313** | **1,995** | **57,308** |
| | | | | 0 | | 0 |
| | | | | (1,374) | | (1,374) |
| | | | | 97 | | 97 |
| | | | | 33 | | 33 |
| | | | | 3 | | 3 |
| | | | | 645 | | 645 |
| | | | | 11 | | 11 |
| | | | | (3,164) | (83) | (3,246) |
| | | | | 0 | (1,584) | (1,584) |
| | | | | (1) | 0 | 0 |
| (113) | *(553)* | *72* | *367* | 1,734 | 364 | 2,099 |
| | | | | *2,568* | *81* | *2,649* |
| *(113)* | *(553)* | *72* | *367* | *(113)* | | *(113)* |
| | | | | *(590)* | | *(590)* |
| | | | | *(130)* | | *(130)* |
| | | | | *0* | *284* | *284* |
| **(4,160)** | *(6,409)* | *243* | *2,005* | **53,300** | **693** | **53,993** |
| | | | | | | |
| (4,494) | *(5,564)* | *98* | *972* | 53,621 | 682 | 54,302 |
| | | | | 0 | | 0 |
| | | | | (883) | | (883) |
| | | | | 97 | | 97 |
| | | | | 57 | | 57 |
| | | | | 13 | | 13 |
| | | | | 543 | | 543 |
| | | | | 24 | | 24 |
| | | | | (2,229) | (50) | (2,280) |
| | | | | (1) | 19 | 18 |
| (1,132) | *(733)* | *(47)* | *(351)* | 2,251 | 92 | 2,343 |
| | | | | *3,389* | *49* | *3,438* |
| *(1,132)* | *(733)* | *(47)* | *(351)* | *(1,132)* | | *(1,132)* |
| | | | | *283* | | *283* |
| | | | | *(290)* | | *(290)* |
| | | | | *0* | *43* | *43* |
| (5,626) | *(6,298)* | *51* | *621* | 53,493 | 743 | 54,236 |

## Statement of cash flows

| | Year-to-date | |
|---|---|---|
| *CHF million* | 30.9.17 | 30.9.16 |
| **Cash flow from / (used in) operating activities** | | |
| Net profit / (loss) | 3,438 | 2,649 |
| **Non-cash items included in net profit and other adjustments:** | | |
| Depreciation and impairment of property, equipment and software | 761 | 731 |
| Amortization and impairment of intangible assets | 53 | 70 |
| Credit loss expense / (recovery) | 39 | 13 |
| Share of net profits of associates | (49) | (89) |
| Deferred tax expense / (benefit) | 306 | 87 |
| Net loss / (gain) from investing activities | 85 | (783) |
| Net loss / (gain) from financing activities | 583 | 7,721 |
| Other net adjustments | (334) | (43) |
| **Net change in operating assets and liabilities:** | | |
| Due from / to banks | 27 | (472) |
| Cash collateral on securities borrowed and reverse repurchase agreements | (23,429) | (80) |
| Cash collateral on securities lent and repurchase agreements | 10,485 | (2,886) |
| Trading portfolio and replacement values | (7,331) | 9,742 |
| Financial assets designated at fair value | 15,490 | (65,523) |
| Cash collateral on derivative instruments | (2,199) | (3,996) |
| Loans | (10,469) | 2,114 |
| Due to customers | (18,465) | 25,621 |
| Other assets, provisions and other liabilities | (5,725) | (9,397) |
| Income taxes paid, net of refunds | (875) | (425) |
| **Net cash flow from / (used in) operating activities** | (37,607) | (34,946) |
| **Cash flow from / (used in) investing activities** | | |
| Purchase of subsidiaries, associates and intangible assets | (100) | (25) |
| Disposal of subsidiaries, associates and intangible assets[1] | 148 | 92 |
| Purchase of property, equipment and software | (1,138) | (1,384) |
| Disposal of property, equipment and software | 28 | 193 |
| Purchase of financial assets available for sale | (7,829) | (10,581) |
| Disposal and redemption of financial assets available for sale | 10,559 | 58,935 |
| Net (purchase) / redemption of financial assets held to maturity | 11 | (7,077) |
| **Net cash flow from / (used in) investing activities** | 1,679 | 40,154 |

Table continues on the next page.

## Statement of cash flows (continued)

Table continued from previous page.

| | Year-to-date | |
|---|---|---|
| *CHF million* | 30.9.17 | 30.9.16 |
| **Cash flow from / (used in) financing activities** | | |
| Net short-term debt issued / (repaid) | 21,855 | 11,127 |
| Net movements in treasury shares and own equity derivative activity | (737) | (1,256) |
| Distributions paid on UBS shares | (2,229) | (3,164) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 40,066 | 28,480 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (32,346) | (30,459) |
| Net changes in non-controlling interests and preferred notes | (50) | (1,371) |
| **Net cash flow from / (used in) financing activities** | 26,558 | 3,358 |
| **Total cash flow** | | |
| **Cash and cash equivalents at the beginning of the period** | 121,138 | 103,044 |
| Net cash flow from / (used in) operating, investing and financing activities | (9,371) | 8,566 |
| Effects of exchange rate differences on cash and cash equivalents | (324) | (1,528) |
| **Cash and cash equivalents at the end of the period**[2] | 111,444 | 110,082 |
| *of which: cash and balances with central banks* | *94,563* | *94,617* |
| *of which: due from banks* | *13,783* | *14,074* |
| *of which: money market paper*[3] | *3,097* | *1,391* |
| **Additional information** | | |
| Net cash flow from / (used in) operating activities includes: | | |
| Interest received in cash | 9,126 | 8,959 |
| Interest paid in cash | 5,046 | 4,616 |
| Dividends on equity investments, investment funds and associates received in cash[4] | 1,465 | 1,323 |

1 Includes dividends received from associates. 2 CHF 2,559 million and CHF 3,932 million of cash and cash equivalents (mainly reflected in Due from banks) were restricted as of 30 September 2017 and 30 September 2016, respectively. Refer to Note 23 in the Annual Report 2016 for more information. 3 Money market paper is included in the balance sheet under Trading portfolio assets, Financial assets available for sale and Financial assets designated at fair value. 4 Includes dividends received from associates reported within Cash flow from / (used in) investing activities.

# Notes to the UBS Group AG interim consolidated financial statements (unaudited)

## Note 1 Basis of accounting

The consolidated financial statements (the Financial Statements) of UBS Group AG and its subsidiaries (together "UBS" or "the Group") are prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), and are presented in Swiss francs (CHF), which is also the functional currency of UBS Group AG and of UBS AG's Head Office and its Swiss-based operations. These interim Financial Statements are prepared in accordance with IAS 34, *Interim Financial Reporting*.

In preparing these interim Financial Statements, the same accounting policies and methods of computation have been applied as in the UBS Group AG consolidated annual Financial Statements for the period ended 31 December 2016, except for the changes described in "Note 1 Basis of accounting" in the "Consolidated financial statements" section of the first quarter 2017 report. These interim Financial Statements are unaudited and should be read in conjunction with UBS Group AG's audited consolidated Financial Statements included in the Annual Report 2016. In the opinion of management, all necessary adjustments were made for a fair presentation of UBS's financial position, results of operations and cash flows.

Preparation of these interim Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities. These estimates and assumptions are based on the best available information. Actual results in the future could differ from such estimates, and such differences may be material to the Financial Statements. Revisions to estimates, based on regular reviews, are recognized in the period in which they occur. For more information on areas of estimation uncertainty considered to require critical judgment, refer to "Note 1a Significant accounting policies" in the "Consolidated financial statements" section of the Annual Report 2016.

### IFRS 9, *Financial Instruments*

UBS will adopt IFRS 9, *Financial Instruments* on 1 January 2018. The Group has made significant progress during 2017 in developing an appropriate expected credit loss (ECL) methodology and related reporting processes for all in-scope financial and non-financial instruments, including loans, financial guarantees and loan commitments. In addition, the changes driven by the IFRS 9 classification and measurement requirements have been confirmed. In the fourth quarter of 2017, the Group will finalize the definition and implementation of residual risk methodology approaches and governance frameworks, and complete various parallel runs.

UBS continues to believe that the impact on the Group's equity and regulatory capital on adoption of IFRS 9 will not be material based on its current expectations of the macroeconomic environment and of the composition of its portfolio as of 1 January 2018.

On 1 January 2018, UBS will also early adopt the *Amendment to IFRS 9: Prepayment Features with Negative Compensation* issued in October 2017, allowing UBS to continue to apply amortized cost accounting for Swiss private mortgages and corporate loans that provide for two-way compensation if a prepayment occurs.

UBS will not adopt the optional IFRS 9 hedge accounting requirements pending completion of the IASB's project on macro hedge accounting strategies.

### IFRS 15, *Revenue from Contracts with Customers*

UBS will adopt IFRS 15, *Revenue from Contracts with Customers* on 1 January 2018. IFRS 15 will not have a material impact on the Group's financial statements. However, the timing of recognition of certain performance-based fees and the presentation in the income statement of certain revenues and expenses will change.

### IAS 28, *Investments in Associates and Joint Ventures*

In October 2017, the IASB issued an amendment to IAS 28, *Investments in Associates and Joint Ventures* that clarified that entities must apply IFRS 9 in accounting for long-term interests in an associate or joint venture to which the equity method of accounting is not applied. The amendment is mandatorily effective for accounting periods beginning on or after 1 January 2019. However, earlier application is available with the adoption of IFRS 9, *Financial Instruments* on 1 January 2018. UBS intends to early adopt this amendment, which is not expected to have a significant effect on the Group's financial statements.

## Note 2 Segment reporting

UBS's businesses are organized globally into five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank, all of which are supported by Corporate Center. The five business divisions qualify as reportable segments for the purpose of segment reporting and, together with Corporate Center and its units, reflect the management structure of the Group. Corporate Center – Non-core and Legacy Portfolio is managed and reported as a separate reportable segment within Corporate Center. Refer to "Note 1a item 2 Segment reporting" and "Note 2 Segment reporting" in the "Consolidated financial statements" section of the Annual Report 2016 for more information on the Group's reporting segments.

| | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center | | | UBS |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | | | | | | Services | Group ALM | Non-core and Legacy Portfolio | |
| **For the nine months ended 30 September 2017** | | | | | | | | | |
| Net interest income | 1,532 | 1,161 | 1,427 | (23) | 855 | (260) | 142 | 22 | 4,855 |
| Non-interest income | 3,998 | 4,941 | 1,320 | 1,432 | 5,344 | 64 | (21) | 52 | 17,129 |
| Allocations from CC – Group ALM | 195 | 80 | 139 | 14 | (264) | 89 | (199) | (54) | 0 |
| Income | 5,726 | 6,182 | 2,886 | 1,422 | 5,935 | (107) | (79) | 19 | 21,985 |
| Credit loss (expense) / recovery | 0 | (3) | (23) | 0 | (10) | 0 | 0 | (3) | (39) |
| Total operating income | 5,726 | 6,180 | 2,864 | 1,422 | 5,924 | (107) | (79) | 16 | 21,946 |
| Personnel expenses | 1,786 | 3,842 | 648 | 542 | 2,300 | 2,788 | 25 | 34 | 11,967 |
| General and administrative expenses | 420 | 458 | 203 | 161 | 398 | 3,119 | 14 | (19) | 4,754 |
| Services (to) / from CC and other BDs | 1,707 | 934 | 819 | 375 | 2,009 | (6,002) | (10) | 167 | 0 |
| *of which: services from CC – Services* | *1,648* | *919* | *887* | *403* | *1,942* | *(6,043)* | *100* | *144* | *0* |
| Depreciation and impairment of property, equipment and software | 2 | 1 | 9 | 1 | 7 | 740 | 0 | 0 | 761 |
| Amortization and impairment of intangible assets | 3 | 31 | 0 | 3 | 9 | 6 | 0 | 0 | 53 |
| Total operating expenses[1] | 3,918 | 5,266 | 1,678 | 1,082 | 4,724 | 652 | 29 | 183 | 17,534 |
| **Operating profit / (loss) before tax** | **1,808** | **913** | **1,185** | **340** | **1,200** | **(759)** | **(108)** | **(167)** | **4,412** |
| Tax expense / (benefit) | | | | | | | | | 974 |
| **Net profit / (loss)** | | | | | | | | | **3,438** |
| **As of 30 September 2017** | | | | | | | | | |
| **Total assets** | **118,380** | **65,344** | **137,494** | **12,603** | **248,256** | **23,289** | **258,564** | **49,668** | **913,599** |
| **For the nine months ended 30 September 2016** | | | | | | | | | |
| Net interest income | 1,439 | 986 | 1,421 | (25) | 597 | (242) | 485 | (10) | 4,652 |
| Non-interest income | 3,773 | 4,652 | 1,359 | 1,450 | 5,266 | 162 | (145) | 109 | 16,628 |
| Allocations from CC – Group ALM | 302 | 70 | 261 | 6 | (182) | 37 | (414) | (80) | 0 |
| Income | 5,514 | 5,709 | 3,042 | 1,432 | 5,681 | (43) | (75) | 20 | 21,279 |
| Credit loss (expense) / recovery | (4) | (2) | 2 | 0 | (6) | 0 | 0 | (3) | (13) |
| Total operating income | 5,510 | 5,706 | 3,043 | 1,432 | 5,674 | (43) | (75) | 17 | 21,266 |
| Personnel expenses | 1,806 | 3,572 | 636 | 563 | 2,339 | 2,862 | 23 | 50 | 11,852 |
| General and administrative expenses | 392 | 402 | 185 | 170 | 533 | 3,031 | 10 | 546 | 5,269 |
| Services (to) / from CC and other BDs | 1,727 | 923 | 825 | 386 | 2,077 | (6,115) | (33) | 210 | 0 |
| *of which: services from CC – Services* | *1,664* | *913* | *902* | *404* | *2,014* | *(6,144)* | *80* | *167* | *0* |
| Depreciation and impairment of property, equipment and software | 2 | 1 | 11 | 1 | 18 | 698 | 0 | 0 | 731 |
| Amortization and impairment of intangible assets | 3 | 39 | 0 | 3 | 9 | 16 | 0 | 0 | 70 |
| Total operating expenses[1] | 3,930 | 4,938 | 1,657 | 1,124 | 4,977 | 491 | (1) | 806 | 17,922 |
| **Operating profit / (loss) before tax** | **1,580** | **768** | **1,386** | **308** | **698** | **(534)** | **(74)** | **(789)** | **3,344** |
| Tax expense / (benefit) | | | | | | | | | 695 |
| **Net profit / (loss)** | | | | | | | | | **2,649** |
| **As of 31 December 2016** | | | | | | | | | |
| **Total assets** | **115,539** | **65,882** | **139,912** | **12,028** | **242,302** | **23,669** | **267,200** | **68,485** | **935,016** |

1 Refer to Note 16 for information on restructuring expenses.

## Note 3 Net fee and commission income

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| Underwriting fees | 304 | 357 | 213 | (15) | 43 | 1,020 | 716 |
| *of which: equity underwriting fees* | *205* | *224* | *124* | *(8)* | *65* | *667* | *374* |
| *of which: debt underwriting fees* | *99* | *133* | *90* | *(26)* | *10* | *354* | *342* |
| M&A and corporate finance fees | 174 | 170 | 162 | 2 | 7 | 521 | 477 |
| Brokerage fees | 803 | 862 | 843 | (7) | (5) | 2,606 | 2,689 |
| Investment fund fees | 789 | 795 | 774 | (1) | 2 | 2,398 | 2,367 |
| Portfolio management and advisory fees | 2,155 | 2,107 | 2,031 | 2 | 6 | 6,300 | 5,965 |
| Other | 460 | 454 | 456 | 1 | 1 | 1,374 | 1,320 |
| **Total fee and commission income** | 4,686 | 4,744 | 4,479 | (1) | 5 | 14,219 | 13,535 |
| Brokerage fees paid | 162 | 179 | 173 | (9) | (6) | 506 | 562 |
| Other | 280 | 270 | 251 | 4 | 12 | 821 | 737 |
| **Total fee and commission expense** | 442 | 449 | 423 | (2) | 4 | 1,327 | 1,299 |
| **Net fee and commission income** | 4,244 | 4,295 | 4,056 | (1) | 5 | 12,892 | 12,236 |
| *of which: net brokerage fees* | *641* | *683* | *671* | *(6)* | *(4)* | *2,100* | *2,127* |

## Note 4 Other income

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| **Associates and subsidiaries** | | | | | | | |
| Net gains / (losses) from disposals of subsidiaries[1] | 3 | (18) | (5) | | | (19) | (177) |
| Share of net profits of associates | 14 | 17 | 49 | (18) | (71) | 49 | 89 |
| **Total** | 17 | (2) | 44 | | (61) | 30 | (88) |
| **Financial assets available for sale** | | | | | | | |
| Net gains / (losses) from disposals | 11 | 129 | 18 | (91) | (39) | 147 | 255 |
| Impairment charges | 0 | 1 | (1) | (100) | (100) | (13) | (4) |
| **Total** | 10 | 131 | 17 | (92) | (41) | 133 | 250 |
| Net income from properties (excluding net gains / (losses) from disposals)[2] | 6 | 6 | 5 | 0 | 20 | 18 | 19 |
| Net gains / (losses) from disposals of properties held for sale | 0 | 0 | 1 | | (100) | (1) | 121 |
| Net gains / (losses) from disposals of loans and receivables | 2 | (2) | (3) | | | 17 | (4) |
| Other | 27 | 14 | 41 | 93 | (34) | 54 | 92 |
| **Total other income** | 62 | 147 | 104 | (58) | (40) | 252 | 390 |

1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to disposed foreign subsidiaries and branches. 2 Includes net rent received from third parties and net operating expenses.

## Note 5 Personnel expenses

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| Salaries and variable compensation | 2,291 | 2,428 | 2,419 | (6) | (5) | 7,161 | 7,309 |
| Wealth Management Americas: Financial advisor compensation[1] | 976 | 992 | 913 | (2) | 7 | 2,956 | 2,733 |
| Contractors | 116 | 107 | 103 | 8 | 13 | 316 | 321 |
| Social security | 205 | 187 | 213 | 10 | (4) | 594 | 555 |
| Pension and other post-employment benefit plans | 170 | 169 | 158 | 1 | 8 | 539 | 508 |
| Other personnel expenses | 134 | 130 | 136 | 3 | (1) | 400 | 425 |
| **Total personnel expenses[2]** | 3,893 | 4,014 | 3,942 | (3) | (1) | 11,967 | 11,852 |

1 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated on the basis of financial advisor productivity, firm tenure, assets and other variables. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. 2 Includes restructuring expenses. Refer to Note 16 for more information.

## Note 6 General and administrative expenses

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| Occupancy | 216 | 217 | 230 | 0 | (6) | 654 | 685 |
| Rent and maintenance of IT and other equipment | 132 | 135 | 113 | (2) | 17 | 411 | 379 |
| Communication and market data services | 152 | 148 | 153 | 3 | (1) | 455 | 477 |
| Administration[1] | 145 | 102 | 144 | 42 | 1 | 345 | 403 |
| Marketing and public relations | 88 | 93 | 102 | (5) | (14) | 273 | 330 |
| Travel and entertainment | 98 | 110 | 86 | (11) | 14 | 296 | 319 |
| Professional fees | 304 | 276 | 270 | 10 | 13 | 836 | 871 |
| Outsourcing of IT and other services | 392 | 362 | 391 | 8 | 0 | 1,138 | 1,209 |
| Provisions for litigation, regulatory and similar matters[2] | 197 | 9 | 419 | | (53) | 239 | 530 |
| Other | 37 | 35 | 30 | 6 | 23 | 106 | 65 |
| **Total general and administrative expenses[3]** | 1,760 | 1,488 | 1,939 | 18 | (9) | 4,754 | 5,269 |

1 Includes credits related to the UK bank levy of CHF 71 million for the first nine months of 2017, of which CHF 46 million was recorded in the second quarter of 2017 and CHF 25 million in the first quarter of 2017. 2 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. The third quarter of 2017 included an indemnification payment of CHF 245 million to BTG Investments. Refer to Note 14 for more information. Also includes recoveries from third parties (third quarter of 2017: CHF 50 million; second quarter of 2017: CHF 1 million; third quarter of 2016: CHF 0 million). 3 Includes restructuring expenses. Refer to Note 16 for more information.

## Note 7 Income taxes

The Group recognized a net income tax expense of CHF 272 million for the third quarter of 2017 compared with a net income tax expense of CHF 49 million for the third quarter of 2016.

The third quarter 2017 net income tax expense included tax expenses of CHF 446 million in respect of current-year taxable profits. This included current tax expenses of CHF 230 million and deferred tax expenses of CHF 216 million, the latter mainly representing amortization of prior-year Swiss tax loss and temporary difference deferred tax assets (DTAs).

The third quarter 2017 net income tax expense also included a net upward revaluation of DTAs of CHF 174 million. This net benefit reflected an increase in US DTAs of CHF 224 million, partly offset by a net write-down of Swiss DTAs of CHF 50 million. The increase in US DTAs was primarily driven by higher profit forecasts for Wealth Management Americas. The write-down of Swiss DTAs primarily reflected a reduction in the effective tax rate at which the Swiss DTAs are measured, resulting from a change in the mix of forecast profits principally between operating income and dividends.

The interim Financial Statements have been prepared on the basis that UBS Limited is able to offset part of its taxable profits with prior-year tax losses transferred from UBS AG in 2014 and 2015. During 2016, the UK tax authorities indicated that they do not agree with this tax return filing position, but the authorities have recently advised UBS that they accept that a transfer can occur and will now proceed to examine the amount of losses to be transferred. UBS believes that any differences between the final transfer amount to be agreed with the UK tax authorities and the original tax return filing position will not be material to the financial statements.

In the fourth quarter of 2017, we expect to recognize a further net upward revaluation of DTAs, representing approximately 25% of the full-year revaluation, as adjusted for any further revaluations that may be required following the finalization of the business plans in the quarter.

## Note 8 Earnings per share (EPS) and shares outstanding

| | As of or for the quarter ended | | | % change from | | As of or year-to-date | |
|---|---|---|---|---|---|---|---|
| | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| **Basic earnings (CHF million)** | | | | | | | |
| Net profit / (loss) attributable to shareholders | 946 | 1,174 | 827 | (19) | 14 | 3,389 | 2,568 |
| **Diluted earnings (CHF million)** | | | | | | | |
| Net profit / (loss) attributable to shareholders | 946 | 1,174 | 827 | (19) | 14 | 3,389 | 2,568 |
| Less: (profit) / loss on own equity derivative contracts | 0 | 0 | 0 | | | 0 | 0 |
| Net profit / (loss) attributable to shareholders for diluted EPS | 946 | 1,174 | 827 | (19) | 14 | 3,389 | 2,568 |
| **Weighted average shares outstanding** | | | | | | | |
| Weighted average shares outstanding for basic EPS | 3,717,418,510 | 3,715,138,875 | 3,708,461,667 | 0 | 0 | 3,715,168,026 | 3,722,921,422 |
| Effect of dilutive potential shares resulting from notional shares, in-the-money options and warrants outstanding | 120,524,131 | 110,988,858 | 103,397,473 | 9 | 17 | 118,377,580 | 99,928,126 |
| Weighted average shares outstanding for diluted EPS | 3,837,942,641 | 3,826,127,733 | 3,811,859,140 | 0 | 1 | 3,833,545,606 | 3,822,849,548 |
| **Earnings per share (CHF)** | | | | | | | |
| Basic | 0.25 | 0.32 | 0.22 | (22) | 14 | 0.91 | 0.69 |
| Diluted | 0.25 | 0.31 | 0.22 | (19) | 14 | 0.88 | 0.67 |
| **Shares outstanding** | | | | | | | |
| Shares issued | 3,852,361,272 | 3,851,805,058 | 3,850,381,434 | 0 | 0 | | |
| Treasury shares | 133,704,681 | 135,182,950 | 141,143,510 | (1) | (5) | | |
| Shares outstanding | 3,718,656,591 | 3,716,622,108 | 3,709,237,924 | 0 | 0 | | |

The table below outlines the potential shares that could dilute basic earnings per share in the future, but were not dilutive for the periods presented.

| | | | | % change from | | | |
|---|---|---|---|---|---|---|---|
| *Number of shares* | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| **Potentially dilutive instruments** | | | | | | | |
| Employee share-based compensation awards | 26,430,448 | 30,018,635 | 52,768,695 | (12) | (50) | 26,430,448 | 52,768,695 |
| Other equity derivative contracts | 13,334,222 | 12,185,977 | 17,985,645 | 9 | (26) | 14,552,127 | 17,139,767 |
| **Total** | 39,764,670 | 42,204,612 | 70,754,340 | (6) | (44) | 40,982,575 | 69,908,462 |

## Note 9 Fair value measurement

This Note provides fair value measurement information for both financial and non-financial instruments and should be read in conjunction with "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016, which provides more information on valuation principles, valuation governance, valuation techniques, valuation adjustments, fair value hierarchy classification, valuation inputs, sensitivity of fair value measurements and methods applied to calculate fair values for financial instruments not measured at fair value.

## Note 9 Fair value measurement (continued)

### a) Fair value hierarchy

The fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value is summarized in the table below.

**Determination of fair values from quoted market prices or valuation techniques[1]**

| | 30.9.17 | | | | 30.6.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Assets measured at fair value on a recurring basis** | | | | | | | | | | | | |
| Financial assets held for trading[2] | 91,067 | 16,991 | 1,974 | 110,032 | 87,656 | 13,928 | 1,593 | 103,176 | 76,044 | 14,292 | 1,689 | 92,025 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *14,331* | *1,420* | *0* | *15,751* | *14,244* | *992* | *0* | *15,236* | *10,500* | *1,319* | *0* | *11,820* |
| *Corporate and municipal bonds* | *60* | *8,097* | *543* | *8,701* | *55* | *7,090* | *788* | *7,932* | *58* | *6,638* | *591* | *7,287* |
| *Loans* | *0* | *3,173* | *1,109* | *4,282* | *0* | *1,371* | *502* | *1,873* | *0* | *1,356* | *681* | *2,037* |
| *Investment fund units* | *5,080* | *2,911* | *17* | *8,009* | *5,242* | *2,946* | *25* | *8,213* | *6,114* | *3,521* | *63* | *9,698* |
| *Asset-backed securities* | *0* | *271* | *157* | *428* | *0* | *340* | *146* | *486* | *0* | *470* | *215* | *685* |
| *Equity instruments* | *62,684* | *282* | *80* | *63,046* | *58,975* | *517* | *62* | *59,554* | *50,913* | *397* | *65* | *51,375* |
| *Financial assets for unit-linked investment contracts* | *8,912* | *837* | *67* | *9,816* | *9,140* | *672* | *69* | *9,881* | *8,459* | *591* | *74* | *9,123* |
| Positive replacement values | 599 | 117,307 | 1,556 | 119,462 | 699 | 119,292 | 1,919 | 121,910 | 434 | 155,428 | 2,549 | 158,411 |
| *of which:* | | | | | | | | | | | | |
| *Interest rate contracts* | *2* | *45,213* | *149* | *45,364* | *1* | *47,589* | *161* | *47,751* | *8* | *57,703* | *278* | *57,988* |
| *Credit derivative contracts* | *0* | *2,724* | *613* | *3,338* | *0* | *2,245* | *777* | *3,023* | *0* | *2,562* | *1,313* | *3,875* |
| *Foreign exchange contracts* | *320* | *47,410* | *193* | *47,923* | *278* | *51,601* | *182* | *52,062* | *263* | *75,607* | *222* | *76,092* |
| *Equity / index contracts* | *9* | *20,231* | *600* | *20,840* | *18* | *16,568* | *799* | *17,385* | *1* | *17,274* | *729* | *18,003* |
| *Commodity contracts* | *0* | *1,495* | *0* | *1,495* | *0* | *1,249* | *0* | *1,250* | *0* | *2,269* | *8* | *2,277* |
| Financial assets designated at fair value | 18,864 | 30,269 | 1,605 | 50,738 | 21,488 | 28,718 | 1,580 | 51,787 | 39,641 | 23,632 | 2,079 | 65,353 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *17,994* | *3,208* | *0* | *21,201* | *20,579* | *3,916* | *0* | *24,494* | *39,439* | *4,361* | *0* | *43,799* |
| *Corporate and municipal bonds* | *686* | *21,142* | *0* | *21,828* | *730* | *20,575* | *0* | *21,306* | *15* | *16,860* | *0* | *16,875* |
| *Loans (including structured loans)* | *0* | *5,406* | *539* | *5,945* | *0* | *3,809* | *483* | *4,293* | *0* | *2,043* | *1,195* | *3,238* |
| *Structured reverse repurchase and securities borrowing agreements* | *0* | *149* | *547* | *696* | *0* | *65* | *577* | *643* | *0* | *40* | *644* | *684* |
| *Other* | *185* | *365* | *519* | *1,068* | *179* | *352* | *520* | *1,052* | *187* | *329* | *240* | *756* |
| Financial assets available for sale | 7,437 | 5,087 | 520 | 13,043 | 7,675 | 5,969 | 470 | 14,114 | 6,299 | 8,891 | 486 | 15,676 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *5,165* | *225* | *0* | *5,391* | *5,510* | *261* | *0* | *5,771* | *5,444* | *450* | *0* | *5,894* |
| *Corporate and municipal bonds* | *2,108* | *1,090* | *7* | *3,206* | *2,000* | *2,097* | *12* | *4,109* | *646* | *4,939* | *12* | *5,596* |
| *Investment fund units* | *0* | *70* | *115* | *184* | *0* | *69* | *99* | *168* | *0* | *51* | *126* | *177* |
| *Asset-backed securities* | *0* | *3,687* | *0* | *3,687* | *0* | *3,527* | *0* | *3,527* | *0* | *3,381* | *0* | *3,381* |
| *Equity instruments* | *163* | *15* | *398* | *576* | *165* | *14* | *359* | *539* | *204* | *71* | *336* | *611* |
| Non-financial assets | | | | | | | | | | | | |
| Precious metals and other physical commodities | 4,283 | 0 | 0 | 4,283 | 4,508 | 0 | 0 | 4,508 | 4,583 | 0 | 0 | 4,583 |
| **Assets measured at fair value on a non-recurring basis** | | | | | | | | | | | | |
| Other assets[3] | 0 | 58 | 34 | 92 | 0 | 61 | 34 | 95 | 5,060 | 131 | 56 | 5,248 |
| **Total assets measured at fair value** | 122,250 | 169,713 | 5,688 | 297,651 | 122,026 | 167,969 | 5,596 | 295,591 | 132,062 | 202,377 | 6,860 | 341,298 |

## Note 9 Fair value measurement (continued)

**Determination of fair values from quoted market prices or valuation techniques (continued)[1]**

| | 30.9.17 | | | | 30.6.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Liabilities measured at fair value on a recurring basis** | | | | | | | | | | | | |
| Trading portfolio liabilities | 24,758 | 5,797 | 65 | 30,620 | 20,538 | 4,695 | 87 | 25,320 | 18,807 | 3,898 | 119 | 22,824 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *7,178* | *731* | *0* | *7,909* | *6,378* | *591* | *0* | *6,969* | *5,573* | *648* | *0* | *6,221* |
| *Corporate and municipal bonds* | *32* | *4,513* | *21* | *4,565* | *39* | *3,799* | *6* | *3,844* | *12* | *2,927* | *37* | *2,976* |
| *Investment fund units* | *729* | *257* | *0* | *986* | *547* | *51* | *0* | *599* | *484* | *91* | *20* | *595* |
| *Equity instruments* | *16,819* | *295* | *45* | *17,158* | *13,574* | *254* | *80* | *13,907* | *12,738* | *227* | *62* | *13,026* |
| Negative replacement values | 564 | 112,391 | 2,502 | 115,457 | 650 | 115,528 | 2,849 | 119,027 | 539 | 149,255 | 4,016 | 153,810 |
| *of which:* | | | | | | | | | | | | |
| *Interest rate contracts* | *9* | *38,885* | *405* | *39,298* | *1* | *41,046* | *317* | *41,365* | *12* | *51,990* | *475* | *52,476* |
| *Credit derivative contracts* | *0* | *3,824* | *340* | *4,164* | *0* | *2,997* | *963* | *3,960* | *0* | *3,269* | *1,538* | *4,807* |
| *Foreign exchange contracts* | *293* | *46,178* | *125* | *46,596* | *287* | *50,996* | *138* | *51,421* | *274* | *71,668* | *148* | *72,089* |
| *Equity / index contracts* | *5* | *22,159* | *1,630* | *23,794* | *11* | *19,341* | *1,430* | *20,783* | *1* | *20,254* | *1,854* | *22,109* |
| *Commodity contracts* | *0* | *1,236* | *1* | *1,237* | *0* | *1,116* | *0* | *1,116* | *0* | *2,040* | *1* | *2,041* |
| Financial liabilities designated at fair value | 5 | 44,386 | 12,194 | 56,585 | 10 | 42,074 | 12,131 | 54,215 | 2 | 44,007 | 11,008 | 55,017 |
| *of which:* | | | | | | | | | | | | |
| *Issued debt instruments* | *4* | *39,181* | *10,358* | *49,543* | *9* | *37,693* | *10,228* | *47,930* | *0* | *40,242* | *9,688* | *49,930* |
| *Over-the-counter debt instruments* | *2* | *4,672* | *1,781* | *6,455* | *2* | *3,994* | *1,850* | *5,846* | *2* | *3,611* | *1,050* | *4,663* |
| *Structured repurchase agreements* | *0* | *529* | *51* | *580* | *0* | *381* | *48* | *429* | *0* | *130* | *266* | *395* |
| *Loan commitments and guarantees* | *0* | *4* | *4* | *8* | *0* | *6* | *4* | *10* | *0* | *25* | *5* | *29* |
| Other liabilities – amounts due under unit-linked investment contracts | 0 | 9,893 | 0 | 9,893 | 0 | 10,099 | 0 | 10,099 | 0 | 9,286 | 0 | 9,286 |
| **Liabilities measured at fair value on a non-recurring basis** | | | | | | | | | | | | |
| Other liabilities[3] | 0 | 2 | 0 | 2 | 0 | 5 | 0 | 5 | 0 | 5,213 | 0 | 5,213 |
| **Total liabilities measured at fair value** | 25,328 | 172,469 | 14,762 | 212,558 | 21,198 | 172,402 | 15,067 | 208,667 | 19,347 | 211,660 | 15,143 | 246,150 |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 30 September 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 26 million (of which CHF 31 million were net Level 2 assets and CHF 5 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 30 June 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 31 million (of which CHF 36 million were net Level 2 assets and CHF 5 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 31 December 2016, net bifurcated embedded derivative assets held at fair value totaling CHF 50 million (of which CHF 58 million were net Level 2 assets and CHF 8 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. 2 Financial assets held for trading exclude precious metals and other physical commodities. 3 Other assets and other liabilities primarily consist of assets held for sale as well as assets and liabilities of a disposal group held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell.

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which the instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
- Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data; or
- Level 3 – valuation techniques for which significant inputs are not based on observable market data.

**Note 9 Fair value measurement (continued)**

## b) Valuation adjustments

### Day-1 reserves

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period.

Deferred day-1 profit or loss related to financial instruments other than financial assets available for sale is released into *Net trading income* when pricing of equivalent products or the underlying parameters become observable or when the transaction is closed out.

Deferred day-1 profit or loss related to financial assets available for sale is released into *Other comprehensive income* when pricing of equivalent products or the underlying parameters become observable and is released into *Other income* when the assets are sold.

**Deferred day-1 profit or loss**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| **Balance at the beginning of the period** | 349 | 365 | 444 | 371 | 421 |
| Profit / (loss) deferred on new transactions | 76 | 65 | 67 | 192 | 227 |
| (Profit) / loss recognized in the income statement | (79) | (66) | (105) | (199) | (216) |
| (Profit) / loss recognized in other comprehensive income | 0 | 0 | 0 | 0 | (23) |
| Foreign currency translation | 5 | (15) | (2) | (13) | (7) |
| **Balance at the end of the period** | 351 | 349 | 403 | 351 | 403 |

## c) Transfers between Level 1 and Level 2

The amounts disclosed reflect transfers between Level 1 and Level 2 for instruments that were held for the entire reporting period.

Assets totaling approximately CHF 0.7 billion, which were mainly comprised of financial assets designated at fair value and trading portfolio assets, primarily corporate and municipal bonds as well as investment fund units, were transferred from Level 2 to Level 1 during the first nine months of 2017, generally due to increased levels of trading activity observed within the market. Liabilities transferred from Level 2 to Level 1 during the first nine months of 2017 were negligible.

Assets totaling approximately CHF 0.2 billion, which were mainly comprised of financial assets available for sale, largely government bills / bonds, were transferred from Level 1 to Level 2 during the first nine months of 2017, generally due to diminished levels of trading activity observed in the market. Liabilities transferred from Level 1 to Level 2 during the first nine months of 2017 were negligible.

## Note 9 Fair value measurement (continued)

### d) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities together with the valuation techniques used to measure fair value, the significant inputs used in the valuation technique that are considered unobservable and a range of values for those unobservable inputs.

The range of values represents the highest and lowest level input used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input, but rather the different underlying characteristics of the relevant assets and liabilities. The ranges and weighted averages will vary from period to period and from parameter to parameter based on characteristics of the instruments held at each balance sheet date. Further, the ranges and weighted averages of unobservable inputs may differ across other financial institutions due to the diversity of the products in each firm's inventory.

The significant unobservable inputs disclosed in the table below are generally consistent with those included in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016. A description of the potential effect that a change in each unobservable input in isolation may have on a fair value measurement, including information to facilitate an understanding of factors that give rise to the input ranges shown, is also provided in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016.

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 30.9.17 | | | 31.12.16 | | | |
| *CHF billion* | 30.9.17 | 31.12.16 | 30.9.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Financial assets held for trading / Trading portfolio liabilities, Financial assets / liabilities designated at fair value and Financial assets available for sale** | | | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.6* | *0.6* | *0.0* | *0.0* | Relative value to market comparable | Bond price equivalent | 0 | 133 | 88 | 0 | 128 | 88 | points |
| *Traded loans, loans designated at fair value, loan commitments and guarantees* | *2.1* | *2.0* | *0.0* | *0.0* | Relative value to market comparable | Loan price equivalent | 82 | 102 | 93 | 39 | 103 | 94 | points |
| | | | | | Discounted expected cash flows | Credit spread | 29 | 177 | | 71 | 554 | | basis points |
| | | | | | Market comparable and securitization model | Discount margin | 0 | 14 | 2 | 0 | 16 | 2 | % |
| *Structured (reverse) repurchase agreements* | *0.5* | *0.6* | *0.1* | *0.3* | Discounted expected cash flows | Funding spread | 15 | 195 | | 15 | 195 | | basis points |
| *Issued and over-the-counter debt instruments[3]* | | | *12.1* | *10.7* | | | | | | | | | |

## Note 9 Fair value measurement (continued)

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities (continued)**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 30.9.17 | | | 31.12.16 | | | |
| *CHF billion* | 30.9.17 | 31.12.16 | 30.9.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Replacement values** | | | | | | | | | | | | | |
| *Interest rate contracts* | *0.1* | *0.3* | *0.4* | *0.5* | Option model | Volatility of interest rates | 24 | 136 | | 26 | 176 | | % |
| | | | | | | Rate-to-rate correlation | 84 | 94 | | 84 | 94 | | % |
| | | | | | | Intra-curve correlation | 73 | 100 | | 36 | 94 | | % |
| *Credit derivative contracts* | *0.6* | *1.3* | *0.3* | *1.5* | Discounted expected cash flow based on modeled defaults and recoveries | Credit spreads | 0 | 689 | | 0 | 791 | | basis points |
| | | | | | | Upfront price points | 1 | 70 | | 1 | 13 | | % |
| | | | | | | Recovery rates | 15 | 50 | | 0 | 50 | | % |
| | | | | | | Discount margin | 0 | 13 | | (1) | 68 | | % |
| | | | | | Discounted cash flow projection on underlying bond | Constant prepayment rate | 6 | 12 | | 1 | 15 | | % |
| | | | | | | Constant default rate | 1 | 5 | | 1 | 8 | | % |
| | | | | | | Loss severity | 40 | 90 | | 40 | 100 | | % |
| | | | | | | Discount margin | 1 | 6 | | 0 | 11 | | % |
| | | | | | | Bond price equivalent | 3 | 161 | | 3 | 100 | | points |
| *Equity / index contracts* | *0.6* | *0.7* | *1.6* | *1.9* | Option model | Equity dividend yields | 0 | 15 | | 0 | 15 | | % |
| | | | | | | Volatility of equity stocks, equity and other indices | 0 | 225 | | 0 | 150 | | % |
| | | | | | | Equity-to-FX correlation | (38) | 82 | | (45) | 82 | | % |
| | | | | | | Equity-to-equity correlation | (50) | 98 | | 12 | 98 | | % |

1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par (e.g., 100 points would be 100% of par). 2 Weighted averages are provided for non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to derivative contracts as this would not be meaningful. 3 Valuation techniques, significant unobservable inputs and the respective input ranges for issued debt instruments and over-the-counter debt instruments are the same as the equivalent derivative or structured financing instruments presented elsewhere in this table.

## Note 9 Fair value measurement (continued)

### e) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible alternative assumptions would change fair value significantly, and the estimated effect thereof.

The table shown presents the favorable and unfavorable effects for each class of financial assets and liabilities for which the potential change in fair value is considered significant. The sensitivity data presented represent an estimation of valuation uncertainty based on reasonably possible alternative values for Level 3 inputs at the balance sheet date and does not represent the estimated effect of stress scenarios. Typically, these financial assets and liabilities are sensitive to a combination of inputs from Levels 1 through 3. Although well-defined interdependencies may exist between Levels 1–2 and Level 3 parameters (e.g., between interest rates, which are generally Level 1 or Level 2, and prepayments, which are generally Level 3), these have not been incorporated in the table. Further, direct interrelationships between the Level 3 parameters are not a significant element of the valuation uncertainty.

**Sensitivity of fair value measurements to changes in unobservable input assumptions**

| | 30.9.17 | | 30.6.17 | | 31.12.16 | |
|---|---|---|---|---|---|---|
| *CHF million* | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] |
| Corporate and municipal bonds | 17 | (16) | 15 | (20) | 34 | (39) |
| Traded loans, loans designated at fair value, loan commitments and guarantees | 83 | (12) | 80 | (8) | 82 | (10) |
| Equity instruments | 67 | (45) | 71 | (50) | 67 | (47) |
| Interest rate derivative contracts, net | 31 | (47) | 22 | (40) | 41 | (42) |
| Credit derivative contracts, net | 98 | (126) | 119 | (136) | 131 | (183) |
| Foreign exchange derivative contracts, net | 11 | (6) | 12 | (6) | 17 | (8) |
| Equity / index derivative contracts, net | 64 | (63) | 73 | (81) | 63 | (63) |
| Issued and over-the-counter debt instruments | 92 | (92) | 85 | (89) | 96 | (93) |
| Other | 26 | (24) | 23 | (23) | 29 | (31) |
| **Total** | 489 | (431) | 499 | (452) | 560 | (517) |

1 Of the total favorable changes, CHF 74 million as of 30 September 2017 (30 June 2017: CHF 72 million; 31 December 2016: CHF 75 million) related to financial assets available for sale. Of the total unfavorable changes, CHF 53 million as of 30 September 2017 (30 June 2017: CHF 51 million; 31 December 2016: CHF 55 million) related to financial assets available for sale.

**Note 9 Fair value measurement (continued)**

## f) Level 3 instruments: movements during the period

### Significant changes in Level 3 instruments

The table on the following pages presents additional information about material Level 3 assets and liabilities measured at fair value on a recurring basis. Level 3 assets and liabilities may be hedged with instruments classified as Level 1 or Level 2 in the fair value hierarchy, and, as a result, realized and unrealized gains and losses included in the table may not include the effect of related hedging activity. Furthermore, the realized and unrealized gains and losses presented within the table are not limited solely to those arising from Level 3 inputs, as valuations are generally derived from both observable and unobservable parameters.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Assets transferred into and out of Level 3 totaled CHF 0.7 billion and CHF 1.0 billion, respectively. Transfers into Level 3 were primarily comprised of equity / index contracts and equity instruments, and were mainly due to decreased observability of the respective equity volatility and market pricing inputs. Transfers out of Level 3 were primarily comprised of equity / index and credit derivative contracts, reflecting increased observability of the respective equity volatility and credit spread inputs.

Liabilities transferred into and out of Level 3 totaled CHF 0.8 billion and CHF 2.7 billion, respectively. Transfers into Level 3 were primarily comprised of equity-linked issued debt instruments, due to decreased observability of the respective equity volatility inputs used to determine the fair value of the options embedded in these structures. Transfers out of Level 3 were primarily comprised of equity-linked issued debt instruments, credit derivative and equity / index contracts resulting from changes in the availability of the observable equity volatility and credit spread inputs used to determine the fair value of the options embedded in these structures.

## Note 9 Fair value measurement (continued)

**Movements of Level 3 instruments**

| *CHF billion* | **Balance as of 31 December 2015** | Total gains / (losses) included in comprehensive income: Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | **Balance as of 30 September 2016** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Financial assets held for trading | 2.1 | 0.0 | *(0.1)* | 0.8 | (4.2) | 2.9 | 0.0 | 0.5 | (0.3) | (0.1) | 1.7 |
| *of which:* | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.7* | *0.1* | *0.0* | *0.5* | *(0.6)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *(0.1)* | *0.7* |
| *Loans* | *0.8* | *0.0* | *0.0* | *0.1* | *(3.0)* | *2.9* | *0.0* | *0.1* | *(0.2)* | *0.0* | *0.6* |
| *Other* | *0.6* | *(0.1)* | *(0.1)* | *0.2* | *(0.6)* | *0.0* | *0.0* | *0.4* | *0.0* | *0.0* | *0.4* |
| Financial assets designated at fair value | 3.3 | (0.1) | *(0.1)* | 0.0 | 0.0 | 0.6 | (1.5) | 0.4 | (0.1) | (0.1) | 2.5 |
| *of which:* | | | | | | | | | | | |
| *Loans (including structured loans)* | *1.7* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.5* | *(0.6)* | *0.4* | *(0.1)* | *(0.1)* | *1.7* |
| *Structured reverse repurchase and securities borrowing agreements* | *1.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* | *(0.9)* | *0.0* | *0.0* | *0.0* | *0.7* |
| *Other* | *0.1* | *0.1* | *0.1* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* |
| Financial assets available for sale | 0.7 | 0.0 | *0.0* | 0.1 | (0.1) | 0.0 | 0.0 | 0.0 | (0.1) | 0.0 | 0.6 |
| Positive replacement values | 2.9 | (0.2) | *(0.2)* | 0.0 | 0.0 | 0.7 | (1.4) | 0.9 | (0.1) | (0.1) | 2.6 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.3* | *(0.5)* | *0.2* | *0.0* | *(0.1)* | *1.1* |
| *Equity / index contracts* | *1.0* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.3* | *(0.4)* | *0.2* | *(0.1)* | *0.0* | *0.8* |
| *Other* | *0.6* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.2* | *(0.5)* | *0.5* | *0.0* | *0.0* | *0.7* |
| Negative replacement values | 3.3 | 0.8 | *0.8* | 0.0 | 0.0 | 0.7 | (1.3) | 0.9 | (0.4) | 0.1 | 3.9 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.7* | *0.7* | *0.0* | *0.0* | *0.0* | *(0.4)* | *0.1* | *(0.1)* | *0.0* | *1.6* |
| *Equity / index contracts* | *1.4* | *(0.1)* | *(0.2)* | *0.0* | *0.0* | *0.6* | *(0.4)* | *0.2* | *(0.2)* | *0.0* | *1.5* |
| *Other* | *0.6* | *0.2* | *0.2* | *0.0* | *0.0* | *0.0* | *(0.4)* | *0.7* | *(0.1)* | *0.1* | *0.9* |
| Financial liabilities designated at fair value | 10.7 | 0.6 | *0.5* | 0.0 | 0.0 | 3.1 | (2.5) | 1.2 | (2.3) | (0.2) | 10.5 |
| *of which:* | | | | | | | | | | | |
| *Issued debt instruments* | *9.3* | *0.6* | *0.5* | *0.0* | *0.0* | *2.6* | *(1.6)* | *1.1* | *(2.3)* | *(0.2)* | *9.6* |
| *Over-the-counter debt instruments* | *0.8* | *0.0* | *0.0* | *0.0* | *0.0* | *0.4* | *(0.5)* | *0.1* | *0.0* | *0.0* | *0.7* |
| *Structured repurchase agreements* | *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* | *(0.4)* | *0.0* | *0.0* | *0.0* | *0.3* |

1 Total Level 3 assets as of 30 September 2017 were CHF 5.7 billion (30 June 2017: CHF 5.6 billion; 31 December 2016: CHF 6.9 billion). Total Level 3 liabilities as of 30 September 2017 were CHF 14.8 billion (30 June 2017: CHF 15.1 billion; 31 December 2016: CHF 15.1 billion).

## Note 9 Fair value measurement (continued)

| | Total gains / (losses) included in comprehensive income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Balance as of 31 December 2016 | Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | Balance as of 30 September 2017[1] |
| 1.7 | 0.0 | *0.0* | 0.5 | (2.4) | 2.2 | 0.0 | 0.3 | (0.2) | 0.0 | 2.0 |
| *0.6* | *0.0* | *0.0* | *0.3* | *(0.4)* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* | *0.5* |
| *0.7* | *0.1* | *0.0* | *0.0* | *(1.8)* | *2.2* | *0.0* | *0.0* | *(0.1)* | *0.0* | *1.1* |
| *0.4* | *(0.1)* | *0.0* | *0.1* | *(0.2)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.0* | *0.3* |
| 2.1 | 0.0 | *0.0* | 0.0 | 0.0 | 0.3 | (0.8) | 0.1 | (0.1) | 0.0 | 1.6 |
| *1.2* | *0.1* | *0.1* | *0.0* | *0.0* | *0.0* | *(0.7)* | *0.0* | *(0.1)* | *0.0* | *0.5* |
| *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.5* |
| *0.2* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.3* | *0.0* | *0.1* | *0.0* | *0.0* | *0.5* |
| 0.5 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.5 |
| 2.5 | (0.2) | *(0.3)* | 0.0 | 0.0 | 0.7 | (1.0) | 0.2 | (0.7) | 0.0 | 1.6 |
| *1.3* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.0* | *(0.4)* | *0.0* | *(0.3)* | *0.0* | *0.6* |
| *0.7* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.6* | *(0.4)* | *0.1* | *(0.4)* | *0.0* | *0.6* |
| *0.5* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *(0.1)* | *0.0* | *0.3* |
| 4.0 | 0.1 | *(0.1)* | 0.0 | 0.0 | 0.4 | (0.9) | 0.2 | (1.3) | 0.0 | 2.5 |
| *1.5* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.1* | *(0.5)* | *0.0* | *(0.8)* | *0.0* | *0.3* |
| *1.9* | *0.1* | *0.1* | *0.0* | *0.0* | *0.3* | *(0.3)* | *0.1* | *(0.5)* | *0.0* | *1.6* |
| *0.6* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.1* | *0.0* | *0.0* | *0.5* |
| 11.0 | 1.1 | *0.8* | 0.0 | 0.0 | 5.2 | (4.0) | 0.6 | (1.4) | (0.2) | 12.2 |
| *9.7* | *1.0* | *0.8* | *0.0* | *0.0* | *3.8* | *(3.3)* | *0.6* | *(1.2)* | *(0.2)* | *10.4* |
| *1.1* | *0.1* | *0.0* | *0.0* | *0.0* | *1.3* | *(0.6)* | *0.0* | *0.0* | *0.0* | *1.8* |
| *0.3* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *(0.2)* | *0.0* | *0.1* |

**Note 9 Fair value measurement (continued)**

## g) Financial instruments not measured at fair value

The table below reflects the estimated fair values of financial instruments not measured at fair value.

**Financial instruments not measured at fair value**

| | 30.9.17 | | 30.6.17 | | 31.12.16 | |
|---|---|---|---|---|---|---|
| *CHF billion* | Carrying value | Fair value | Carrying value | Fair value | Carrying value | Fair value |
| Assets | | | | | | |
| Cash and balances with central banks | 94.6 | 94.6 | 100.1 | 100.1 | 107.8 | 107.8 |
| Due from banks | 15.0 | 15.0 | 14.4 | 14.4 | 13.2 | 13.2 |
| Cash collateral on securities borrowed | 16.6 | 16.6 | 15.1 | 15.1 | 15.1 | 15.1 |
| Reverse repurchase agreements | 87.9 | 87.9 | 75.3 | 75.3 | 66.2 | 66.2 |
| Cash collateral receivables on derivative instruments | 24.9 | 24.9 | 22.7 | 22.7 | 26.7 | 26.7 |
| Loans | 314.5 | 316.8 | 308.3 | 310.4 | 306.3 | 309.7 |
| Financial assets held to maturity | 9.0 | 8.9 | 8.7 | 8.6 | 9.3 | 9.1 |
| Other assets | 23.1 | 23.1 | 21.1 | 21.1 | 18.5 | 18.5 |
| Liabilities | | | | | | |
| Due to banks | 10.6 | 10.6 | 11.6 | 11.6 | 10.6 | 10.6 |
| Cash collateral on securities lent | 2.4 | 2.4 | 2.5 | 2.5 | 2.8 | 2.8 |
| Repurchase agreements | 17.5 | 17.5 | 11.3 | 11.3 | 6.6 | 6.6 |
| Cash collateral payables on derivative instruments | 31.9 | 31.9 | 31.5 | 31.5 | 35.5 | 35.5 |
| Due to customers | 401.7 | 401.7 | 404.3 | 404.3 | 423.7 | 423.7 |
| Debt issued | 133.5 | 137.1 | 121.7 | 125.1 | 103.7 | 106.1 |
| Other liabilities | 37.5 | 37.5 | 35.9 | 35.9 | 38.3 | 38.4 |

The fair values included in the table above were calculated for disclosure purposes only. The fair value valuation techniques and assumptions relate only to the fair value of UBS's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimation, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another.

## Note 10 Derivative instruments

### a) Derivative instruments

| *As of 30.9.17, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 45.4 | 1,123 | 39.3 | 1,036 | 10,312 |
| Credit derivative contracts | 3.3 | 109 | 4.2 | 110 | 1 |
| Foreign exchange contracts | 47.9 | 2,364 | 46.6 | 2,211 | 2 |
| Equity / index contracts | 20.8 | 383 | 23.8 | 455 | 83 |
| Commodity contracts | 1.5 | 36 | 1.2 | 33 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.3 | 29 | 0.1 | 21 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 29 | 0.3 | 23 | |
| **Total derivative instruments, based on IFRS netting[4]** | 119.5 | 4,073 | 115.5 | 3,890 | 10,405 |
| Further netting potential not recognized on the balance sheet[5] | (104.4) | | (98.8) | | |
| *of which: netting of recognized financial liabilities / assets* | *(83.4)* | | *(83.4)* | | |
| *of which: netting with collateral received / pledged* | *(21.0)* | | *(15.4)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 15.1 | | 16.7 | | |
| | | | | | |
| *As of 30.6.17, CHF billion* | | | | | |
| **Derivative instruments** | | | | | |
| Interest rate contracts | 47.8 | 1,065 | 41.4 | 976 | 10,324 |
| Credit derivative contracts | 3.0 | 107 | 4.0 | 116 | 2 |
| Foreign exchange contracts | 52.1 | 2,292 | 51.4 | 2,144 | 8 |
| Equity / index contracts | 17.4 | 302 | 20.8 | 367 | 65 |
| Commodity contracts | 1.2 | 33 | 1.1 | 32 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.2 | 24 | 0.2 | 29 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 36 | 0.2 | 15 | |
| **Total derivative instruments, based on IFRS netting[4]** | 121.9 | 3,859 | 119.0 | 3,678 | 10,408 |
| Further netting potential not recognized on the balance sheet[5] | (107.7) | | (98.9) | | |
| *of which: netting of recognized financial liabilities / assets* | *(85.3)* | | *(85.3)* | | |
| *of which: netting with collateral received / pledged* | *(22.4)* | | *(13.5)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 14.2 | | 20.2 | | |
| | | | | | |
| *As of 31.12.16, CHF billion* | | | | | |
| **Derivative instruments** | | | | | |
| Interest rate contracts | 58.0 | 1,152 | 52.5 | 1,060 | 9,730 |
| Credit derivative contracts | 3.9 | 123 | 4.8 | 140 | |
| Foreign exchange contracts | 76.1 | 2,470 | 72.1 | 2,286 | 6 |
| Equity / index contracts | 18.0 | 269 | 22.1 | 318 | 55 |
| Commodity contracts | 2.3 | 39 | 2.0 | 36 | 9 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.1 | 18 | 0.1 | 10 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.1 | 13 | 0.2 | 11 | |
| **Total derivative instruments, based on IFRS netting[4]** | 158.4 | 4,084 | 153.8 | 3,860 | 9,799 |
| Further netting potential not recognized on the balance sheet[5] | (139.8) | | (129.6) | | |
| *of which: netting of recognized financial liabilities / assets* | *(113.1)* | | *(113.1)* | | |
| *of which: netting with collateral received / pledged* | *(26.7)* | | *(16.6)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 18.6 | | 24.2 | | |

1 In cases where replacement values are presented on a net basis on the balance sheet, the respective notional values of the netted replacement values are still presented on a gross basis. 2 Other notional values relate to derivatives that are cleared through either a central counterparty or an exchange. Many of these derivatives are either legally or economically settled on a daily basis. The residual unsettled fair value of these derivatives and the fair value of other derivatives that are presented on the balance sheet net of the corresponding cash margin, both within Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments, were not material for all periods presented. 3 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as replacement values. 4 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. 5 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to Note 24 in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 10 Derivative instruments (continued)

### b) Cash collateral on derivative instruments

| *CHF billion* | Receivables 30.9.17 | Payables 30.9.17 | Receivables 30.6.17 | Payables 30.6.17 | Receivables 31.12.16 | Payables 31.12.16 |
|---|---|---|---|---|---|---|
| Cash collateral on derivative instruments, based on IFRS netting[1] | 24.9 | 31.9 | 22.7 | 31.5 | 26.7 | 35.5 |
| Further netting potential not recognized on the balance sheet[2] | (13.6) | (17.3) | (11.2) | (18.4) | (15.1) | (22.2) |
| *of which: netting of recognized financial liabilities / assets* | *(12.7)* | *(16.0)* | *(10.7)* | *(17.8)* | *(14.2)* | *(20.8)* |
| *of which: netting with collateral received / pledged* | *(1.0)* | *(1.3)* | *(0.5)* | *(0.7)* | *(1.0)* | *(1.4)* |
| **Cash collateral on derivative instruments, after consideration of further netting potential** | 11.3 | 14.6 | 11.5 | 13.1 | 11.5 | 13.3 |

1 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of UBS or its counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Effective 3 January 2017, interest rate swaps and credit derivatives transacted with the Chicago Mercantile Exchange (CME) were legally converted from the previous collateral model to a settlement model resulting in a derecognition of the associated assets and liabilities, with UBS no longer applying IAS 32 netting principles. Refer to Note 10 in the "Consolidated financial statements" section of the first quarter 2017 report for more information. 2 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to Note 24 in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 11 Other assets and liabilities

| *CHF million* | 30.9.17 | 30.6.17 | 31.12.16 |
|---|---|---|---|
| **Other assets** | | | |
| Prime brokerage receivables[1] | 14,042 | 12,388 | 9,828 |
| Recruitment loans to financial advisors | 2,597 | 2,643 | 3,087 |
| Other loans to financial advisors | 561 | 557 | 471 |
| Bail deposit[2] | 1,304 | 1,246 | 1,213 |
| Accrued interest income | 607 | 557 | 526 |
| Accrued income – other | 867 | 857 | 818 |
| Prepaid expenses | 1,046 | 1,031 | 1,010 |
| Settlement and clearing accounts | 806 | 385 | 516 |
| VAT and other tax receivables | 323 | 325 | 292 |
| Properties and other non-current assets held for sale | 92 | 95 | 111 |
| Assets of disposal group held for sale | 0 | 0 | 5,137 |
| Other | 2,537 | 2,709 | 2,427 |
| **Total other assets** | 24,783 | 22,793 | 25,436 |
| **Other liabilities** | | | |
| Prime brokerage payables[1] | 31,180 | 30,068 | 31,973 |
| Amounts due under unit-linked investment contracts | 9,893 | 10,099 | 9,286 |
| Compensation-related liabilities | 7,042 | 6,303 | 7,421 |
| *of which: accrued expenses* | *2,251* | *1,641* | *2,423* |
| *of which: Deferred Contingent Capital Plan* | *1,869* | *1,771* | *1,625* |
| *of which: other deferred compensation plans* | *2,002* | *1,821* | *2,107* |
| *of which: net defined benefit pension and post-employment liabilities* | *920* | *1,071* | *1,266* |
| Third-party interest in consolidated investment funds | 301 | 327 | 701 |
| Settlement and clearing accounts | 1,174 | 707 | 1,012 |
| Current and deferred tax liabilities | 812 | 702 | 949 |
| VAT and other tax payables | 421 | 492 | 503 |
| Deferred income | 181 | 192 | 168 |
| Accrued interest expenses | 1,227 | 1,162 | 1,553 |
| Other accrued expenses | 2,424 | 2,307 | 2,448 |
| Liabilities of disposal group held for sale | 0 | 0 | 5,213 |
| Other | 1,192 | 1,294 | 793 |
| **Total other liabilities** | 55,848 | 53,653 | 62,020 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage receivables are mainly comprised of margin lending receivables. Prime brokerage payables are mainly comprised of client securities financing and deposits. 2 Refer to item 1 in Note 14b for more information.

## Note 12 Financial liabilities designated at fair value

| *CHF million* | 30.9.17 | 30.6.17 | 31.12.16 |
|---|---|---|---|
| **Issued debt instruments** | | | |
| Equity-linked[1] | 34,317 | 31,869 | 29,831 |
| Rates-linked | 6,536 | 6,801 | 10,150 |
| Credit-linked | 3,228 | 3,748 | 4,101 |
| Fixed-rate | 3,271 | 3,123 | 2,972 |
| Other | 2,189 | 2,389 | 2,875 |
| **Total issued debt instruments** | 49,543 | 47,930 | 49,930 |
| **Over-the-counter debt instruments** | 6,455 | 5,846 | 4,663 |
| **Other** | 587 | 439 | 425 |
| **Total** | 56,585 | 54,215 | 55,017 |
| *of which: life-to-date own credit (gain) / loss* | *164* | *128* | *(141)* |

1 Includes investment fund unit-linked instruments issued.

## Note 13 Debt issued held at amortized cost

| *CHF million* | 30.9.17 | 30.6.17 | 31.12.16 |
|---|---|---|---|
| Certificates of deposit | 26,594 | 33,162 | 20,207 |
| Commercial paper | 17,561 | 6,530 | 1,653 |
| Other short-term debt | 3,907 | 4,199 | 4,318 |
| **Short-term debt[1]** | 48,062 | 43,891 | 26,178 |
| Senior fixed-rate bonds | 29,107 | 25,527 | 27,008 |
| Senior unsecured debt that contributes to total loss-absorbing capacity | 27,081 | 23,521 | 16,890 |
| Covered bonds | 4,052 | 3,896 | 5,836 |
| Subordinated debt | 16,697 | 16,431 | 19,325 |
| *of which: high-trigger loss-absorbing additional tier 1 capital instruments* | *5,189* | *5,153* | *5,429* |
| *of which: low-trigger loss-absorbing additional tier 1 capital instruments* | *2,366* | *2,295* | *2,342* |
| *of which: low-trigger loss-absorbing tier 2 capital instruments* | *8,256* | *8,110* | *10,429* |
| *of which: non-Basel III-compliant tier 2 capital instruments* | *886* | *873* | *1,125* |
| Debt issued through the central bond institutions of the Swiss regional or cantonal banks | 8,368 | 8,369 | 8,302 |
| Other long-term debt | 131 | 91 | 112 |
| **Long-term debt[2]** | 85,435 | 77,836 | 77,472 |
| **Total debt issued held at amortized cost[3]** | 133,497 | 121,727 | 103,649 |

1 Debt with an original maturity of less than one year. 2 Debt with an original maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features. 3 Net of bifurcated embedded derivatives with a net positive fair value of CHF 14 million as of 30 September 2017 (30 June 2017: net positive fair value of CHF 20 million; 31 December 2016: net positive fair value of CHF 38 million).

## Note 14 Provisions and contingent liabilities

### a) Provisions

| *CHF million* | Operational risks[1] | Litigation, regulatory and similar matters[2] | Restructuring | Loan commitments and guarantees | Real estate | Employee benefits[5] | Other | Total provisions |
|---|---|---|---|---|---|---|---|---|
| Balance as of 31 December 2016 | 50 | 3,261 | 498 | 54 | 142 | 77 | 91 | 4,174 |
| Balance as of 30 June 2017 | 47 | 2,446 | 385 | 53 | 132 | 68 | 74 | 3,207 |
| Additions from acquired companies | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 |
| Increase in provisions recognized in the income statement | 4 | 310 | 51 | 1 | 0 | 1 | 13 | 381 |
| Release of provisions recognized in the income statement | (1) | (63) | (26) | (6) | 0 | (2) | 0 | (99) |
| Provisions used in conformity with designated purpose | (6) | (313) | (77) | 0 | (2) | 0 | (1) | (399) |
| Capitalized reinstatement costs | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Foreign currency translation / unwind of discount | (1) | 30 | 8 | 0 | 1 | 1 | 1 | 39 |
| Balance as of 30 September 2017 | 44 | 2,410 | 341[3] | 48 | 132[4] | 68 | 93 | 3,136 |

1 Comprises provisions for losses resulting from security risks and transaction processing risks. 2 Comprises provisions for losses resulting from legal, liability and compliance risks. 3 Consists of personnel-related restructuring provisions of CHF 80 million as of 30 September 2017 (30 June 2017: CHF 95 million; 31 December 2016: CHF 150 million) and provisions for onerous lease contracts of CHF 261 million as of 30 September 2017 (30 June 2017: CHF 290 million; 31 December 2016: CHF 348 million). 4 Consists of reinstatement costs for leasehold improvements of CHF 89 million as of 30 September 2017 (30 June 2017: CHF 88 million; 31 December 2016: CHF 87 million) and provisions for onerous lease contracts of CHF 43 million as of 30 September 2017 (30 June 2017: CHF 45 million; 31 December 2016: CHF 55 million). 5 Includes provisions for sabbatical and anniversary awards as well as provisions for severance that are not part of restructuring provisions.

Restructuring provisions primarily relate to onerous lease contracts and severance payments. The use of onerous lease provisions is driven by the maturities of the underlying lease contracts. Severance-related provisions are used within a short time period, usually within six months, but potential changes in amount may be triggered when natural staff attrition reduces the number of people affected by a restructuring and therefore the estimated costs.

Information on provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 14b. There are no material contingent liabilities associated with the other classes of provisions.

### b) Litigation, regulatory and similar matters

The Group operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS Group AG and / or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where the Group may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which the Group believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. The Group makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against the Group, but are nevertheless expected to be, based on the Group's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to such matters could be significant.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

**Note 14 Provisions and contingent liabilities (continued)**

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard, or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in Note 14a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require us to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although we therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, we believe that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. For example, the Non-Prosecution Agreement (NPA) described in item 5 of this Note, which we entered into with the US Department of Justice (DOJ), Criminal Division, Fraud Section in connection with our submissions of benchmark interest rates, including, among others, the British Bankers' Association London Interbank Offered Rate (LIBOR), was terminated by the DOJ based on its determination that we had committed a US crime in relation to foreign exchange matters. As a consequence, UBS AG pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, paid a USD 203 million fine and is subject to a three-year term of probation. A guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for UBS. Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate our participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining our capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital management" section of this report.

**Provisions for litigation, regulatory and similar matters by business division and Corporate Center unit[1]**

| *CHF million* | Wealth Manage-ment | Wealth Management Americas | Personal & Corporate Banking | Asset Manage-ment | Investment Bank | CC – Services | CC – Group ALM | CC – Non-core and Legacy Portfolio | UBS |
|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | 292 | 425 | 78 | 5 | 616 | 259 | 0 | 1,585 | 3,261 |
| **Balance as of 30 June 2017** | 249 | 361 | 77 | 5 | 391 | 253 | 0 | 1,110 | 2,446 |
| Increase in provisions recognized in the income statement | 20 | 10 | 0 | 0 | 2 | 248 | 0 | 31 | 310 |
| Release of provisions recognized in the income statement | 0 | (3) | 0 | (5)[2] | (47) | (1) | 0 | (7) | (63) |
| Provisions used in conformity with designated purpose | (1) | (46) | 0 | 0 | (5) | (259) | 0 | (1) | (313) |
| Foreign currency translation / unwind of discount | 11 | 3 | 1 | 0 | 3 | 1 | 0 | 11 | 30 |
| **Balance as of 30 September 2017** | 279 | 325 | 78 | 0 | 344 | 241 | 0 | 1,144 | 2,410 |

1 Provisions, if any, for the matters described in this Note are recorded in Wealth Management (item 3), Wealth Management Americas (item 4), the Investment Bank (item 8), Corporate Center – Services (item 7) and Corporate Center – Non-core and Legacy Portfolio (item 2). Provisions, if any, for the matters described in items 1 and 6 of this Note are allocated between Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in this Note in item 5 are allocated between the Investment Bank, Corporate Center – Services and Corporate Center – Non-core and Legacy Portfolio.
2 In the third quarter of 2017, a release of CHF 5 million was recognized in Provisions for litigation, regulatory and similar matters, with a corresponding increase in Other provisions.

**Note 14 Provisions and contingent liabilities (continued)**

### 1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions. It is possible that implementation of automatic tax information exchange and other measures relating to cross-border provision of financial services could give rise to further inquiries in the future. UBS has received disclosure orders from the Swiss Federal Tax Administration (FTA) to transfer information based on requests for international administrative assistance in tax matters. The requests concern a number of UBS account numbers pertaining to current and former clients and are based on data from 2006 and 2008. UBS has taken steps to inform affected clients about the administrative assistance proceedings and their procedural rights, including the right to appeal. The requests are based on data received from the German authorities, who seized certain data related to UBS clients booked in Switzerland during their investigations and have apparently shared this data with other European countries. UBS expects additional countries to file similar requests.

The Swiss Federal Administrative Court ruled in 2016 that in the administrative assistance proceedings related to a French bulk request, UBS has the right to appeal all final FTA client data disclosure orders.

Since 2013, UBS (France) S.A. and UBS AG and certain former employees have been under investigation in France for alleged complicity in having illicitly solicited clients on French territory and regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons. In connection with this investigation, the investigating judges ordered UBS AG to provide bail ("*caution*") of EUR 1.1 billion and UBS (France) S.A. to post bail of EUR 40 million, which was reduced on appeal to EUR 10 million.

In February 2016, the investigating judges notified UBS AG and UBS (France) S.A. that they have closed their investigation. In July 2016, UBS AG and UBS (France) S.A. received the National Financial Prosecutor's recommendation ("*réquisitoire*"). In March 2017, the investigating judges issued the trial order ("*ordonnance de renvoi*") that charges UBS AG and UBS (France) S.A., as well as various former employees, with illicit solicitation of clients on French territory and with participation in the laundering of the proceeds of tax fraud, and which transfers the case to court. The trial schedule has not yet been announced.

In 2016, UBS was notified by the Belgian investigating judge that it is under formal investigation ("*inculpé*") regarding the laundering of proceeds of tax fraud and of banking, financial solicitation by unauthorized persons and serious tax fraud.

In 2015, UBS received inquiries from the US Attorney's Office for the Eastern District of New York and from the US Securities and Exchange Commission (SEC), which are investigating potential sales to US persons of bearer bonds and other unregistered securities in possible violation of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and the registration requirements of the US securities laws. UBS is cooperating with the authorities in these investigations.

UBS has, and reportedly numerous other financial institutions have, received inquiries from authorities concerning accounts relating to the Fédération Internationale de Football Association (FIFA) and other constituent soccer associations and related persons and entities. UBS is cooperating with authorities in these inquiries.

Our balance sheet at 30 September 2017 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages. A subsidiary of UBS, UBS Real Estate Securities Inc. (UBS RESI), acquired pools of residential mortgage loans from originators and (through an affiliate) deposited them into securitization trusts. In this manner, from 2004 through 2007, UBS RESI sponsored approximately USD 80 billion in RMBS, based on the original principal balances of the securities issued.

UBS RESI also sold pools of loans acquired from originators to third-party purchasers. These whole loan sales during the period 2004 through 2007 totaled approximately USD 19 billion in original principal balance.

UBS was not a significant originator of US residential loans. A branch of UBS originated approximately USD 1.5 billion in US residential mortgage loans during the period in which it was active from 2006 to 2008, and securitized less than half of these loans.

*Lawsuits related to contractual representations and warranties concerning mortgages and RMBS:* When UBS acted as an RMBS sponsor or mortgage seller, it generally made certain representations relating to the characteristics of the underlying loans. In the event of a material breach of these representations, UBS was in certain circumstances contractually obligated to repurchase the loans to which the representations related or to indemnify certain parties against losses. In 2012, certain RMBS trusts filed an action (Trustee Suit) in the US District Court for the Southern District of New York (SDNY) seeking to enforce UBS RESI's obligation to repurchase loans in the collateral pools for three RMBS securitizations with an original principal balance of approximately USD 2 billion. Approximately 9,000 loans were at issue in a bench trial in the SDNY in 2016, following which the court issued an order ruling on numerous legal and factual issues and applying those rulings to 20 exemplar loans. The court further ordered that a lead master be appointed to apply the court's rulings to the loans that remain at issue following the trial. In October 2017, UBS and certain holders of the RMBS in the Trustee Suit entered into an agreement under which UBS has agreed to pay an aggregate of USD 543 million into the relevant RMBS trusts, plus certain attorneys' fees. A portion of these settlement costs will be borne by other parties that indemnified UBS. The agreement is subject to the trustee for the RMBS trusts becoming a party thereto. The security holders who are parties to the settlement agreement have requested that the trustee conduct a vote of security holders to approve or reject the settlement, and each of these security holders has agreed to vote its securities in favor of the settlement. Giving effect to this settlement, UBS considers claims relating to substantially all loan repurchase demands to be resolved, and believes that new demands to repurchase US residential mortgage loans are time-barred under a decision rendered by the New York Court of Appeals.

*Mortgage-related regulatory matters:* In 2014, UBS received a subpoena from the US Attorney's Office for the Eastern District of New York issued pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), which seeks documents and information related to UBS's RMBS business from 2005 through 2007. In 2015, the Eastern District of New York identified a number of transactions that are the focus of their inquiry, and has subsequently provided a revised list of transactions. UBS has provided and continues to provide information. UBS continues to respond to the FIRREA subpoena and to subpoenas from the New York State Attorney General and other state attorneys general relating to its RMBS business. In addition, UBS has also been responding to inquiries from both the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) (who is working in conjunction with the US Attorney's Office for Connecticut and the DOJ) and the SEC relating to trading practices in connection with purchases and sales of mortgage-backed securities in the secondary market from 2009 through 2014. UBS is cooperating with the authorities in these matters.

Our balance sheet at 30 September 2017 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier (CSSF). Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds now face severe losses, and the Luxembourg funds are in liquidation. The last reported net asset value of the two Luxembourg funds before revelation of the Madoff scheme was approximately USD 1.7 billion in the aggregate although that figure likely includes fictitious profit reported by BMIS. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members. UBS Europe SE, Luxembourg branch, and certain other UBS subsidiaries are responding to inquiries by Luxembourg investigating authorities, without, however, being named as parties in those investigations.

**Note 14 Provisions and contingent liabilities (continued)**

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims on behalf of the funds against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees. The amounts claimed are approximately EUR 890 million and EUR 305 million, respectively. The liquidators have filed supplementary claims for amounts that the funds may possibly be held liable to pay the trustee for the liquidation of BMIS (BMIS Trustee). These amounts claimed by the liquidator are approximately EUR 564 million and EUR 370 million, respectively.

In addition, a large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff scheme. The majority of these cases are pending in Luxembourg, where appeals were filed by the claimants against the 2010 decisions of the court in which the claims in a number of test cases were held to be inadmissible. The Luxembourg Court of Appeal has found in favor of UBS and dismissed all of these test case appeals, confirming that the claims are inadmissible. The Luxembourg Supreme Court has also dismissed a further appeal brought by the claimant in one of the test cases.

In the US, the BMIS Trustee filed claims in 2010 against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2 billion. The SDNY dismissed all of the BMIS Trustee's claims other than claims for recovery of fraudulent conveyances and preference payments that were allegedly transferred to UBS on the ground that the BMIS Trustee lacks standing to bring such claims. The SDNY decision was affirmed on appeal and is now final. In 2016, the bankruptcy court issued an opinion dismissing the remaining claims for recovery of transfers of fraudulent conveyances and preference payments on the ground that the US Bankruptcy Code does not apply to transfers that occurred outside the US. The BMIS Trustee has appealed that ruling. In 2014, several claims, including a purported class action, were filed in the US by BMIS customers against UBS entities, asserting claims similar to the ones made by the BMIS Trustee, seeking unspecified damages. One claim was voluntarily withdrawn by the plaintiff. In 2015, the SDNY dismissed the two remaining claims on the basis that the New York courts did not have jurisdiction to hear the claims against the UBS entities. The plaintiff in one of those claims has appealed the dismissal.

In Germany, certain clients of UBS are exposed to Madoff-managed positions through third-party funds and funds administered by UBS entities in Germany. A small number of claims have been filed with respect to such funds. In 2015, a court of appeal ordered UBS to pay EUR 49 million, plus interest of approximately EUR 15.3 million.

### 4. Puerto Rico

Declines since 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) have led to multiple regulatory inquiries, as well as customer complaints and arbitrations with aggregate claimed damages of USD 2.2 billion, of which claims with aggregate claimed damages of USD 1.2 billion have been resolved through settlements, arbitration or withdrawal of the claim. The claims are filed by clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and / or who used their UBS account assets as collateral for UBS non-purpose loans; customer complaint and arbitration allegations include fraud, misrepresentation and unsuitability of the funds and of the loans. A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2015, defendants' motion to dismiss was denied. Defendants' requests for permission to appeal that ruling were denied by the Puerto Rico Court of Appeals and the Puerto Rico Supreme Court. In 2014, a federal class action complaint also was filed against various UBS entities, certain members of UBS PR senior management and the co-manager of certain of the funds, seeking damages for investor losses in the funds during the period from May 2008 through May 2014. In 2016, defendants' motion to dismiss was granted in part and denied in part. In 2015, a class action was filed in Puerto Rico state court against UBS PR seeking equitable relief in the form of a stay of any effort by UBS PR to collect on non-purpose loans it acquired from UBS Bank USA in December 2013 based on plaintiffs' allegation that the loans are not valid. The trial court denied defendant's motion to dismiss the action based on a forum selection clause in the loan agreements. The Puerto Rico Supreme Court reversed that decision and remanded the case back to the trial court for reconsideration.

In 2014, UBS reached a settlement with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico (OCFI) in connection with OCFI's examination of UBS's operations from January 2006 through September 2013, pursuant to which UBS is paying up to an aggregate of USD 7.7 million in investor education contributions and restitution.

In 2015, the SEC and the Financial Industry Regulatory Authority (FINRA) announced settlements with UBS PR of their separate investigations stemming from the 2013 market events. Without admitting or denying the findings in either matter, UBS PR agreed in the SEC settlement to pay USD 15 million and USD 18.5 million in the FINRA matter. We also understand that the DOJ is conducting a criminal inquiry into the impermissible reinvestment of non-purpose loan proceeds. We are cooperating with the authorities in this inquiry.

**Note 14 Provisions and contingent liabilities (continued)**

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of USD 3 billion of bonds by the System in 2008 and sought damages of over USD 800 million. In December 2016, the court granted the System's request to join the action as a plaintiff, but ordered that plaintiffs must file an amended complaint. In March 2017, the court denied defendants' motion to dismiss the amended complaint.

Also, in 2013, an SEC Administrative Law Judge dismissed a case brought by the SEC against two UBS executives, finding no violations. The charges had stemmed from the SEC's investigation of UBS's sale of closed-end funds in 2008 and 2009, which UBS settled in 2012. Beginning in 2012, two federal class action complaints, which were subsequently consolidated, were filed against various UBS entities, certain of the funds and certain members of UBS PR senior management, seeking damages for investor losses in the funds during the period from January 2008 through May 2012 based on allegations similar to those in the SEC action. In 2016, the court denied plaintiffs' motion for class certification. In March 2017, the US Court of Appeals for the First Circuit denied plaintiffs' petition seeking permission to bring an interlocutory appeal challenging the denial of their motion for class certification.

In 2015, certain agencies and public corporations of the Commonwealth of Puerto Rico (Commonwealth) defaulted on certain interest payments, in 2016, the Commonwealth defaulted on payments on its general obligation debt (GO Bonds), and in 2017 the Commonwealth defaulted on payments on its debt backed by the Commonwealth's Sales and Use Tax (COFINA Bonds) as well as on bonds issued by the Commonwealth's Employee Retirement System (ERS Bonds). The funds hold significant amounts of both COFINA and ERS Bonds and the defaults on interest payments are expected to adversely affect dividends from the funds. Executive orders of the Governor that have diverted funds to pay for essential services instead of debt payments and stayed any action to enforce creditors' rights on the Puerto Rico bonds continue to be in effect. In 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board is authorized to impose, and has imposed, a stay on exercise of creditors' rights. In May and June 2017, the oversight board placed the GO, COFINA and ERS Bonds, among others, into a bankruptcy-like proceeding under the supervision of a Federal District Judge as authorized by the oversight board's enabling statute. These events, further defaults, any further legislative action to create a legal means of restructuring Commonwealth obligations or to impose additional oversight on the Commonwealth's finances, or any restructuring of the Commonwealth's obligations may increase the number of claims against UBS concerning Puerto Rico securities, as well as potential damages sought.

Our balance sheet at 30 September 2017 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

### 5. Foreign exchange, LIBOR and benchmark rates, and other trading practices

*Foreign exchange-related regulatory matters:* Following an initial media report in 2013 of widespread irregularities in the foreign exchange markets, UBS immediately commenced an internal review of its foreign exchange business, which includes our precious metals and related structured products businesses. Numerous authorities commenced investigations concerning possible manipulation of foreign exchange markets and precious metals prices. In 2014 and 2015, UBS reached settlements with the UK Financial Conduct Authority (FCA) and the US Commodity Futures Trading Commission (CFTC) in connection with their foreign exchange investigations, FINMA issued an order concluding its formal proceedings relating to UBS's foreign exchange and precious metals businesses, and the Board of Governors of the Federal Reserve System (Federal Reserve Board) and the Connecticut Department of Banking issued a Cease and Desist Order and assessed monetary penalties to UBS AG. In addition, the DOJ's Criminal Division (Criminal Division) terminated the December 2012 Non-Prosecution Agreement (NPA) with UBS AG related to UBS's submissions of benchmark interest rates and UBS AG pleaded guilty to one count of wire fraud, paid a fine and is subject to probation through January 2020. UBS has ongoing obligations to cooperate with these authorities and to undertake certain remediation. UBS has also been granted conditional immunity by the Antitrust Division of the DOJ (Antitrust Division) and by authorities in other jurisdictions in connection with potential competition law violations relating to foreign exchange and precious metals businesses. Refer to Note 20b in the "Consolidated financial statements" section of the Annual Report 2016 for more information on regulatory actions related to foreign exchange and precious metals and grants of conditional immunity or leniency. Investigations relating to foreign exchange and precious metals matters by numerous authorities, including the CFTC, remain ongoing notwithstanding these resolutions.

**Note 14 Provisions and contingent liabilities (continued)**

*Foreign exchange-related civil litigation:* Putative class actions have been filed since 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. They allege collusion by the defendants and assert claims under the antitrust laws and for unjust enrichment. In 2015, additional putative class actions were filed in federal court in New York against UBS and other banks on behalf of a putative class of persons who entered into or held any foreign exchange futures contracts and options on foreign exchange futures contracts since January 2003. The complaints assert claims under the Commodity Exchange Act (CEA) and the US antitrust laws. In 2015, a consolidated complaint was filed on behalf of both putative classes of persons covered by the US federal court class actions described above. UBS has entered into a settlement agreement that would resolve all of these US federal court class actions. The agreement, which has been preliminarily approved by the court and is subject to final court approval, requires, among other things, that UBS pay an aggregate of USD 141 million and provide cooperation to the settlement classes.

A putative class action has been filed in federal court in New York against UBS and other banks on behalf of participants, beneficiaries and named fiduciaries of plans qualified under the Employee Retirement Income Security Act of 1974 (ERISA) for whom a defendant bank provided foreign currency exchange transactional services, exercised discretionary authority or discretionary control over management of such ERISA plan, or authorized or permitted the execution of any foreign currency exchange transactional services involving such plan's assets. The complaint asserts claims under ERISA. The parties filed a stipulation to dismiss the case with prejudice. The plaintiffs have appealed the dismissal. The appeals court heard oral argument in June 2017.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of a putative class of persons and businesses in the US who directly purchased foreign currency from the defendants and their co-conspirators for their own end use. That action has been transferred to federal court in New York. In March 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint. The plaintiffs filed an amended complaint in August 2017.

In 2016, a putative class action was filed in federal court in New York against UBS and numerous other banks on behalf of a putative class of persons and entities who had indirectly purchased FX instruments from a defendant or co-conspirator in the US. The complaint asserts claims under federal and state antitrust laws. In response to defendants' motion to dismiss, plaintiffs agreed to dismiss their complaint. In April and June 2017, two new putative class actions were filed in federal court in New York against UBS and numerous other banks on behalf of different proposed classes of indirect purchasers of currency, and a consolidated complaint was filed in June 2017.

In 2015, UBS was added to putative class actions pending against other banks in federal court in New York and other jurisdictions on behalf of putative classes of persons who had bought or sold physical precious metals and various precious metal products and derivatives. The complaints in these lawsuits assert claims under the antitrust laws and the CEA, and other claims. In October 2016, the court in New York granted UBS's motions to dismiss the putative class actions relating to gold and silver. Plaintiffs in those cases sought to amend their complaints to add new allegations about UBS, which the court granted. The plaintiffs filed their amended complaints in June 2017. In March 2017, the court in New York granted UBS's motion to dismiss the platinum and palladium action. In May 2017, plaintiffs in the platinum and palladium action filed an amended complaint that did not allege claims against UBS.

*LIBOR and other benchmark-related regulatory matters:* Numerous government agencies, including the SEC, the CFTC, the DOJ, the FCA, the UK Serious Fraud Office (SFO), the Monetary Authority of Singapore (MAS), the Hong Kong Monetary Authority (HKMA), FINMA, various state attorneys general in the US and competition authorities in various jurisdictions have conducted or are continuing to conduct investigations regarding potential improper attempts by UBS, among others, to manipulate LIBOR and other benchmark rates at certain times. In 2012, UBS reached settlements relating to benchmark interest rates with the FSA, the CFTC and the Criminal Division of the DOJ, and FINMA issued an order in its proceedings with respect to UBS relating to benchmark interest rates. In addition, UBS entered into settlements with the European Commission (EC) and with the Swiss Competition Commission (WEKO) regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives. UBS has ongoing obligations to cooperate with the authorities with whom we have reached resolutions and to undertake certain remediation with respect to benchmark interest rate submissions. UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO, in connection with potential antitrust or competition law violations related to certain rates. However, UBS has not reached a final settlement with WEKO as the Secretariat of WEKO has asserted that UBS does not qualify for full immunity. Refer to Note 20b in the "Consolidated financial statements" section of the Annual Report 2016 for more information on regulatory actions relating to benchmark rates and grants of conditional immunity or leniency. Investigations by certain governmental authorities remain ongoing notwithstanding these resolutions.

*LIBOR and other benchmark-related civil litigation:* A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. All of the complaints allege manipulation, through various means, of various benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, USD and SGD SIBOR and SOR, Australian BBSW and USD ISDAFIX, and seek unspecified compensatory and other damages under varying legal theories.

In 2013, the US district court in the USD LIBOR action dismissed the federal antitrust and racketeering claims of certain USD LIBOR plaintiffs and a portion of their claims brought under the CEA and state common law. Certain plaintiffs appealed the decision to the Second Circuit, which, in 2016, vacated the district court's ruling finding no antitrust injury and remanded the case back to the district court for a further determination on whether plaintiffs have antitrust standing. In December 2016, the district court again dismissed plaintiffs' antitrust claims, this time for lack of personal jurisdiction over UBS and other foreign banks. In 2014, the court in one of the Euroyen TIBOR lawsuits dismissed certain of the plaintiff's claims, including federal antitrust claims. In 2015, the same court dismissed plaintiff's federal racketeering claims and affirmed its previous dismissal of plaintiff's antitrust claims. In 2017, the court also dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds, as did the court in the CHF LIBOR action. Also in 2017, the courts in the EURIBOR and the SIBOR and SOR lawsuits dismissed the cases as to UBS and certain other foreign defendants for lack of personal jurisdiction. UBS and other defendants in other lawsuits including those related to GBP LIBOR and Australian BBSW have filed motions to dismiss. In 2016, UBS entered into an agreement with representatives of a class of bondholders to settle their USD LIBOR class action. The agreement has received preliminary court approval and remains subject to final approval. Since 2014, putative class actions have been filed in federal court in New York and New Jersey against UBS and other financial institutions, among others, on behalf of parties who entered into interest rate derivative transactions linked to ISDAFIX. The complaints, which have since been consolidated into an amended complaint, allege that the defendants conspired to manipulate ISDAFIX rates from January 2006 through June 2013, in violation of US antitrust laws and certain state laws, and seek unspecified compensatory damages, including treble damages. On 12 July 2017, the court overseeing the ISDAFIX class action preliminarily approved a settlement agreement between UBS AG and the plaintiffs, whereby UBS AG agreed to pay USD 14 million to settle the case in its entirety.

*Government bonds:* Putative class actions have been filed in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. The complaints generally allege that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction. They assert claims under the antitrust laws and the CEA and for unjust enrichment. The cases have been consolidated in the SDNY. Following filing of these complaints, UBS and reportedly other banks are responding to investigations and requests for information from various authorities regarding US Treasury securities and other government bond trading practices. As a result of its review to date, UBS has taken appropriate action.

With respect to additional matters and jurisdictions not encompassed by the settlements and order referred to above, our balance sheet at 30 September 2017 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver.

FINMA has issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and may continue to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among other things, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

## Note 14 Provisions and contingent liabilities (continued)

Our balance sheet at 30 September 2017 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 7. Banco UBS Pactual tax indemnity

Pursuant to the 2009 sale of Banco UBS Pactual S.A. (Pactual) by UBS to BTG Investments, LP (BTG), BTG has submitted contractual indemnification claims. The claims pertain principally to several tax assessments issued by the Brazilian tax authorities against Pactual relating to the period from December 2006 through March 2009, when UBS owned Pactual. These assessments are being challenged in administrative and judicial proceedings. In August 2017, UBS and BTG agreed to resolve the largest indemnification claim (UBS's portion of which was approximately BRL 2 billion) relating to a tax assessment that had disallowed goodwill amortization deductions. In connection with this resolution, UBS paid CHF 245 million to BTG, which then submitted the underlying tax assessment for resolution in a Brazilian tax amnesty program. Of the remaining BRL 732 million in indemnification claims, administrative courts have ruled in favor of BTG in respect of BRL 455 million of assessments related to profit-sharing plans, with the remainder of the assessments pending at various levels of the administrative or judicial court system.

### 8. Investigation of UBS's role in initial public offerings in Hong Kong

The Hong Kong Securities and Futures Commission (SFC) has been conducting investigations into UBS's role as a sponsor of certain initial public offerings listed on the Hong Kong Stock Exchange. In 2016, the SFC informed UBS that it intends to commence action against UBS and certain UBS employees with respect to sponsorship work in those offerings, which could result in financial ramifications for UBS, including fines and obligations to pay investor compensation, and suspension of UBS's ability to provide corporate finance advisory services in Hong Kong for a period of time.

In January 2017, a writ was filed by the SFC with Hong Kong's High Court in which UBS was named as one of six defendants from whom the SFC was seeking investor compensation in an unspecified amount for losses incurred by certain shareholders of China Forestry Holdings Company Limited, for whom UBS acted as a sponsor in connection with their 2009 listing application. In August 2017, the SFC filed an amended writ that did not name UBS and some of the other defendants, thereby discontinuing this action against UBS.

## Note 15 Guarantees, commitments and forward starting transactions

The table below shows the maximum irrevocable amount of guarantees, commitments and forward starting transactions.

| | 30.9.17 | | | 30.6.17 | | | 31.12.16 | | |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Gross | Sub-participations | Net | Gross | Sub-participations | Net | Gross | Sub-participations | Net |
| **Guarantees** | | | | | | | | | |
| Credit guarantees and similar instruments | 6,812 | (442) | 6,371 | 6,411 | (390) | 6,021 | 6,447 | (424) | 6,023 |
| Performance guarantees and similar instruments | 3,309 | (815) | 2,494 | 3,229 | (654) | 2,575 | 3,190 | (696) | 2,494 |
| Documentary credits | 6,578 | (1,652) | 4,926 | 6,198 | (1,611) | 4,587 | 7,074 | (1,761) | 5,313 |
| **Total guarantees** | 16,699 | (2,908) | 13,791 | 15,838 | (2,656) | 13,182 | 16,711 | (2,881) | 13,830 |
| **Loan commitments** | 39,658 | (1,103) | 38,555 | 42,222 | (1,349) | 40,874 | 54,430 | (1,513) | 52,917 |
| **Forward starting transactions**[1] | | | | | | | | | |
| Reverse repurchase agreements | 21,814 | | | 25,218 | | | 10,178 | | |
| Securities borrowing agreements | 88 | | | 183 | | | 36 | | |
| Repurchase agreements | 16,596 | | | 20,890 | | | 5,984 | | |

1 Cash to be paid in the future by either UBS or the counterparty.

## Note 16 Changes in organization

### Restructuring expenses

Restructuring expenses arise from programs that materially change either the scope of business that the Group engages in or the manner in which such business is conducted. Restructuring expenses are necessary to effect such programs and include items such as severance and other personnel-related expenses, duplicate headcount costs, impairment and accelerated depreciation of assets, contract termination costs, consulting fees, and related infrastructure and system costs. These costs are presented in the income statement according to the underlying nature of the expense.

**Net restructuring expenses by business division and Corporate Center unit**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| Wealth Management | 114 | 109 | 139 | 312 | 304 |
| Wealth Management Americas | 24 | 25 | 38 | 71 | 109 |
| Personal & Corporate Banking | 25 | 23 | 41 | 67 | 95 |
| Asset Management | 26 | 23 | 34 | 70 | 88 |
| Investment Bank | 83 | 75 | 181 | 236 | 461 |
| Corporate Center | 11 | 3 | 11 | 32 | 30 |
| *of which: Services* | *9* | *0* | *4* | *23* | *17* |
| *of which: Group ALM* | *1* | *1* | *0* | *3* | *0* |
| *of which: Non-core and Legacy Portfolio* | *1* | *2* | *7* | *6* | *13* |
| Total net restructuring expenses | 285 | 258 | 444 | 787 | 1,086 |
| *of which: personnel expenses* | *140* | *117* | *257* | *373* | *577* |
| *of which: general and administrative expenses* | *143* | *141* | *187* | *407* | *508* |
| *of which: depreciation and impairment of property, equipment and software* | *2* | *0* | *1* | *6* | *1* |
| *of which: amortization and impairment of intangible assets* | *0* | *0* | *0* | *0* | *0* |

**Net restructuring expenses by personnel expense category**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| Salaries and variable compensation | 121 | 109 | 252 | 333 | 567 |
| Contractors | 16 | 13 | 13 | 42 | 41 |
| Social security | 2 | 2 | 3 | 6 | 6 |
| Pension and other post-employment benefit plans | (5) | (10) | (18) | (18) | (52) |
| Other personnel expenses | 6 | 2 | 6 | 10 | 14 |
| Total net restructuring expenses: personnel expenses | 140 | 117 | 257 | 373 | 577 |

**Net restructuring expenses by general and administrative expense category**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| Occupancy | 17 | 22 | 27 | 57 | 97 |
| Rent and maintenance of IT and other equipment | 16 | 26 | 28 | 71 | 72 |
| Administration | 6 | 5 | 5 | 14 | 11 |
| Travel and entertainment | 4 | 3 | 3 | 9 | 11 |
| Professional fees | 45 | 41 | 39 | 113 | 109 |
| Outsourcing of IT and other services | 64 | 45 | 81 | 153 | 229 |
| Other[1] | (9) | (1) | 3 | (10) | (22) |
| Total net restructuring expenses: general and administrative expenses | 143 | 141 | 187 | 407 | 508 |

1 Mainly comprised of onerous real estate lease contracts.

## Note 17 Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of UBS's foreign operations into Swiss francs.

| | Spot rate | | | | Average rate[1] | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | As of | | | | For the quarter ended | | | Year-to-date | |
| | 30.9.17 | 30.6.17 | 31.12.16 | 30.9.16 | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| 1 USD | 0.97 | 0.96 | 1.02 | 0.97 | 0.97 | 0.97 | 0.97 | 0.98 | 0.98 |
| 1 EUR | 1.14 | 1.10 | 1.07 | 1.09 | 1.14 | 1.09 | 1.09 | 1.10 | 1.09 |
| 1 GBP | 1.30 | 1.25 | 1.26 | 1.26 | 1.27 | 1.26 | 1.27 | 1.26 | 1.35 |
| 100 JPY | 0.86 | 0.85 | 0.87 | 0.96 | 0.87 | 0.87 | 0.95 | 0.88 | 0.91 |

1 Monthly income statement items of foreign operations with a functional currency other than Swiss franc are translated with month-end rates into Swiss francs. Disclosed average rates for a quarter represent an average of three month-end rates, weighted according to the income and expense volumes of all foreign operations of the Group with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for the Group.

## Note 18 Events after the reporting period

### Sale of subsidiaries and businesses

On 1 October 2017, UBS completed the sale of Asset Management's fund administration servicing units in Luxembourg and Switzerland to Northern Trust, resulting in a pre-tax gain on sale of approximately CHF 140 million. This gain will be recognized in the income statement within Asset Management in the fourth quarter of 2017.

## Appendix 9 – Excerpts from the UBS AG Third Quarter 2017 report

It should be noted that the term "pro-forma" as used in this Appendix 9 does not refer to the term "pro forma financial information" within the meaning of Regulation (EC) 809/2004.

# UBS AG interim consolidated financial statements (unaudited)

## Income statement

| | | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| Interest income | | 3,611 | 3,590 | 3,305 | 1 | 9 | 10,593 | 10,258 |
| Interest expense | | (1,881) | (2,186) | (1,538) | (14) | 22 | (5,771) | (5,626) |
| Net interest income | | 1,729 | 1,404 | 1,767 | 23 | (2) | 4,822 | 4,633 |
| Credit loss (expense) / recovery | | 7 | (46) | (4) | | | (39) | (13) |
| Net interest income after credit loss expense | | 1,736 | 1,358 | 1,763 | 28 | (2) | 4,783 | 4,619 |
| Net fee and commission income | 3 | 4,252 | 4,296 | 4,075 | (1) | 4 | 12,920 | 12,283 |
| Net trading income | | 1,090 | 1,459 | 1,099 | (25) | (1) | 3,990 | 4,001 |
| Other income | 4 | 200 | 285 | 113 | (30) | 77 | 544 | 401 |
| Total operating income | | 7,279 | 7,398 | 7,049 | (2) | 3 | 22,237 | 21,303 |
| Personnel expenses | 5 | 3,598 | 3,611 | 3,907 | 0 | (8) | 11,253 | 11,759 |
| General and administrative expenses | 6 | 2,282 | 2,111 | 1,985 | 8 | 15 | 5,993 | 5,423 |
| Depreciation and impairment of property, equipment and software | | 221 | 220 | 246 | 0 | (10) | 694 | 727 |
| Amortization and impairment of intangible assets | | 16 | 16 | 23 | 0 | (30) | 53 | 70 |
| Total operating expenses | | 6,117 | 5,957 | 6,161 | 3 | (1) | 17,993 | 17,979 |
| Operating profit / (loss) before tax | | 1,161 | 1,441 | 888 | (19) | 31 | 4,244 | 3,324 |
| Tax expense / (benefit) | 7 | 256 | 317 | 41 | (19) | 524 | 937 | 675 |
| Net profit / (loss) | | 905 | 1,124 | 847 | (19) | 7 | 3,307 | 2,649 |
| Net profit / (loss) attributable to preferred noteholders | | 0 | 0 | 0 | | | 46 | 78 |
| Net profit / (loss) attributable to non-controlling interests | | 2 | 1 | 1 | 100 | 100 | 3 | 3 |
| **Net profit / (loss) attributable to shareholders** | | 904 | 1,123 | 846 | (20) | 7 | 3,257 | 2,568 |

## Statement of comprehensive income

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| **Comprehensive income attributable to shareholders** | | | | | |
| Net profit / (loss) | 904 | 1,123 | 846 | 3,257 | 2,568 |
| Other comprehensive income that may be reclassified to the income statement | | | | | |
| Foreign currency translation | | | | | |
| Foreign currency translation movements, before tax | 375 | (992) | (172) | (990) | (814) |
| Foreign exchange amounts reclassified to the income statement from equity | 2 | 21 | 4 | 27 | 153 |
| Income tax relating to foreign currency translation movements | 226 | 1 | 107 | 229 | 110 |
| Subtotal foreign currency translation, net of tax | 602 | (969) | (61) | (735) | (552) |
| Financial assets available for sale | | | | | |
| Net unrealized gains / (losses) on financial assets available for sale, before tax | 57 | 10 | 6 | 110 | 375 |
| Impairment charges reclassified to the income statement from equity | 0 | (1) | 1 | 13 | 4 |
| Realized gains reclassified to the income statement from equity | (13) | (135) | (18) | (156) | (273) |
| Realized losses reclassified to the income statement from equity | 2 | 5 | 0 | 9 | 19 |
| Income tax relating to net unrealized gains / (losses) on financial assets available for sale | (22) | 6 | (9) | (24) | (53) |
| Subtotal financial assets available for sale, net of tax | 24 | (115) | (21) | (47) | 72 |
| Cash flow hedges | | | | | |
| Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax | 60 | 165 | (175) | 195 | 1,270 |
| Net (gains) / losses reclassified to the income statement from equity | (209) | (211) | (235) | (640) | (812) |
| Income tax relating to cash flow hedges | 30 | 11 | 84 | 93 | (90) |
| Subtotal cash flow hedges, net of tax | (118) | (35) | (326) | (351) | 367 |
| Total other comprehensive income that may be reclassified to the income statement, net of tax | 508 | (1,119) | (408) | (1,133) | (113) |
| Other comprehensive income that will not be reclassified to the income statement | | | | | |
| Defined benefit plans | | | | | |
| Gains / (losses) on defined benefit plans, before tax | 135 | 115 | (186) | 299 | (575) |
| Income tax relating to defined benefit plans | (7) | 0 | (23) | (4) | (16) |
| Subtotal defined benefit plans, net of tax | 128 | 115 | (209) | 295 | (590) |
| Own credit on financial liabilities designated at fair value | | | | | |
| Gains / (losses) from own credit on financial liabilities designated at fair value, before tax | (36) | (72) | (30) | (288) | (135) |
| Income tax relating to own credit on financial liabilities designated at fair value | 0 | (1) | 4 | (1) | 5 |
| Subtotal own credit on financial liabilities designated at fair value, net of tax | (36) | (73) | (25) | (290) | (130) |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 92 | 42 | (235) | 5 | (720) |
| Total other comprehensive income | 600 | (1,077) | (643) | (1,128) | (833) |
| Total comprehensive income attributable to shareholders | 1,504 | 46 | 203 | 2,129 | 1,735 |

## Statement of comprehensive income (continued)

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| **Comprehensive income attributable to preferred noteholders** | | | | | |
| Net profit / (loss) | 0 | 0 | 0 | 46 | 78 |
| Other comprehensive income that will not be reclassified to the income statement | | | | | |
| Foreign currency translation movements, before tax | 30 | 16 | 4 | 44 | 283 |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | 30 | 16 | 4 | 44 | 283 |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 30 | 16 | 4 | 44 | 283 |
| Total comprehensive income attributable to preferred noteholders | 30 | 16 | 4 | 90 | 361 |
| **Comprehensive income attributable to non-controlling interests** | | | | | |
| Net profit / (loss) | 2 | 1 | 1 | 3 | 3 |
| Other comprehensive income that will not be reclassified to the income statement | | | | | |
| Foreign currency translation movements, before tax | 0 | (2) | 1 | (1) | 1 |
| Income tax relating to foreign currency translation movements | 0 | 0 | 0 | 0 | 0 |
| Subtotal foreign currency translation, net of tax | 0 | (2) | 1 | (1) | 1 |
| Total other comprehensive income that will not be reclassified to the income statement, net of tax | 0 | (2) | 1 | (1) | 1 |
| Total comprehensive income attributable to non-controlling interests | 1 | (2) | 3 | 2 | 4 |
| **Total comprehensive income** | | | | | |
| Net profit / (loss) | 905 | 1,124 | 847 | 3,307 | 2,649 |
| Other comprehensive income | 630 | (1,064) | (638) | (1,085) | (549) |
| *of which: other comprehensive income that may be reclassified to the income statement* | *508* | *(1,119)* | *(408)* | *(1,133)* | *(113)* |
| *of which: other comprehensive income that will not be reclassified to the income statement* | *121* | *55* | *(229)* | *48* | *(437)* |
| Total comprehensive income | 1,535 | 60 | 210 | 2,221 | 2,100 |

## Balance sheet

| | | | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.9.17 | 30.6.17 | 31.12.16 | 30.6.17 | 31.12.16 |
| **Assets** | | | | | | |
| Cash and balances with central banks | | 94,563 | 100,071 | 107,767 | (6) | (12) |
| Due from banks | | 15,017 | 14,390 | 13,125 | 4 | 14 |
| Cash collateral on securities borrowed | | 16,614 | 15,081 | 15,111 | 10 | 10 |
| Reverse repurchase agreements | | 87,889 | 75,324 | 66,246 | 17 | 33 |
| Trading portfolio assets | 8 | 114,424 | 107,738 | 96,661 | 6 | 18 |
| *of which: assets pledged as collateral which may be sold or repledged by counterparties* | | *33,418* | *32,679* | *30,260* | *2* | *10* |
| Positive replacement values | 8, 9 | 119,462 | 121,910 | 158,411 | (2) | (25) |
| Cash collateral receivables on derivative instruments | 9 | 24,928 | 22,687 | 26,664 | 10 | (7) |
| Loans | | 316,658 | 310,366 | 307,004 | 2 | 3 |
| Financial assets designated at fair value | 8 | 50,374 | 51,436 | 65,024 | (2) | (23) |
| Financial assets available for sale | 8 | 13,043 | 14,114 | 15,676 | (8) | (17) |
| Financial assets held to maturity | | 9,005 | 8,710 | 9,289 | 3 | (3) |
| Investments in associates | | 987 | 972 | 963 | 2 | 2 |
| Property, equipment and software | | 7,931 | 7,716 | 8,297 | 3 | (4) |
| Goodwill and intangible assets | | 6,388 | 6,226 | 6,556 | 3 | (3) |
| Deferred tax assets | | 12,603 | 12,303 | 13,144 | 2 | (4) |
| Other assets | 10 | 24,665 | 22,717 | 25,412 | 9 | (3) |
| **Total assets** | | 914,551 | 891,763 | 935,353 | 3 | (2) |

## Balance sheet (continued)

| | | | | | % change from | |
|---|---|---|---|---|---|---|
| *CHF million* | Note | 30.9.17 | 30.6.17 | 31.12.16 | 30.6.17 | 31.12.16 |
| **Liabilities** | | | | | | |
| Due to banks | | 10,639 | 11,598 | 10,645 | (8) | 0 |
| Cash collateral on securities lent | | 2,435 | 2,538 | 2,818 | (4) | (14) |
| Repurchase agreements | | 17,535 | 11,286 | 6,612 | 55 | 165 |
| Trading portfolio liabilities | 8 | 30,622 | 25,321 | 22,825 | 21 | 34 |
| Negative replacement values | 8, 9 | 115,457 | 119,027 | 153,810 | (3) | (25) |
| Cash collateral payables on derivative instruments | 9 | 31,899 | 31,520 | 35,472 | 1 | (10) |
| Due to customers | | 439,590 | 438,309 | 450,199 | 0 | (2) |
| Financial liabilities designated at fair value | 8, 11 | 56,585 | 54,215 | 55,017 | 4 | 3 |
| Debt issued | 12 | 98,861 | 90,757 | 78,998 | 9 | 25 |
| Provisions | 13 | 3,098 | 3,167 | 4,169 | (2) | (26) |
| Other liabilities | 10 | 53,839 | 51,596 | 60,443 | 4 | (11) |
| **Total liabilities** | | 860,562 | 839,335 | 881,009 | 3 | (2) |
| **Equity** | | | | | | |
| Share capital | | 386 | 386 | 386 | 0 | 0 |
| Share premium | | 26,960 | 26,953 | 29,505 | 0 | (9) |
| Retained earnings | | 31,527 | 30,532 | 28,265 | 3 | 12 |
| Other comprehensive income recognized directly in equity, net of tax | | (5,627) | (6,136) | (4,494) | (8) | 25 |
| **Equity attributable to shareholders** | | 53,246 | 51,735 | 53,662 | 3 | (1) |
| Equity attributable to preferred noteholders | | 687 | 657 | 642 | 5 | 7 |
| Equity attributable to non-controlling interests | | 56 | 37 | 40 | 51 | 40 |
| **Total equity** | | 53,989 | 52,428 | 54,343 | 3 | (1) |
| **Total liabilities and equity** | | 914,551 | 891,763 | 935,353 | 3 | (2) |

## Statement of changes in equity

| *CHF million* | Share capital | Share premium | Retained earnings |
|---|---|---|---|
| **Balance as of 1 January 2016** | **386** | **29,477** | **29,433** |
| Issuance of share capital | | | |
| Premium on shares issued and warrants exercised | | 4 | |
| Tax (expense) / benefit | | 7 | |
| Dividends | | | (3,434) |
| Preferred notes | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (4) | (1) |
| Total comprehensive income for the period | | | 1,848 |
| *of which: net profit / (loss)* | | | *2,568* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | *(590)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | *(130)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | |
| **Balance as of 30 September 2016** | **386** | **29,485** | **27,846** |
| **Balance as of 1 January 2017** | 386 | 29,505 | 28,265 |
| Issuance of share capital | | | |
| Premium on shares issued and warrants exercised | | 6 | |
| Tax (expense) / benefit | | 12 | |
| Dividends | | (2,250) | |
| Preferred notes | | | |
| New consolidations / (deconsolidations) and other increases / (decreases) | | (313)[2] | |
| Total comprehensive income for the period | | | 3,262 |
| *of which: net profit / (loss)* | | | *3,257* |
| *of which: other comprehensive income (OCI) that may be reclassified to the income statement, net of tax* | | | |
| *of which: OCI that will not be reclassified to the income statement, net of tax – defined benefit plans* | | | *295* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – own credit* | | | *(290)* |
| *of which: OCI that will not be reclassified to the income statement, net of tax – foreign currency translation* | | | |
| **Balance as of 30 September 2017** | 386 | 26,960 | 31,527 |

1 Excludes defined benefit plans and own credit that are recorded directly in Retained earnings. 2 Includes a CHF 307 million reduction related to the transfer of shared services functions in Switzerland from UBS AG to UBS Business Solutions AG, a wholly owned subsidiary of UBS Group AG. Refer to "Note 15 Changes in organization" for more information.

| Other comprehensive income recognized directly in equity, net of tax[1] | *of which: foreign currency translation* | *of which: financial assets available for sale* | *of which: cash flow hedges* | Total equity attributable to shareholders | Preferred noteholders | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| **(4,047)** | *(5,857)* | *172* | *1,638* | **55,248** | **1,954** | **41** | **57,243** |
| | | | | 0 | | | 0 |
| | | | | 4 | | | 4 |
| | | | | 7 | | | 7 |
| | | | | (3,434) | (78) | (5) | (3,517) |
| | | | | 0 | (1,584) | | (1,584) |
| | | | | (4) | | 0 | (4) |
| (113) | *(552)* | *72* | *367* | 1,735 | 361 | 4 | 2,100 |
| | | | | *2,568* | *78* | *3* | *2,649* |
| *(113)* | *(552)* | *72* | *367* | *(113)* | | | *(113)* |
| | | | | *(590)* | | | *(590)* |
| | | | | *(130)* | | | *(130)* |
| | | | | *0* | *283* | *1* | *284* |
| **(4,160)** | *(6,409)* | *243* | *2,005* | **53,556** | **654** | **40** | **54,250** |
| | | | | | | | |
| (4,494) | *(5,564)* | *98* | *972* | 53,662 | 642 | 40 | 54,343 |
| | | | | 0 | | | 0 |
| | | | | 6 | | | 6 |
| | | | | 12 | | | 12 |
| | | | | (2,250) | (46) | (4) | (2,300) |
| | | | | 0 | 1 | | 1 |
| | | | | (313) | | 19 | (294) |
| (1,133) | *(735)* | *(47)* | *(351)* | 2,129 | 90 | 2 | 2,221 |
| | | | | *3,257* | *46* | *3* | *3,307* |
| *(1,133)* | *(735)* | *(47)* | *(351)* | *(1,133)* | | | *(1,133)* |
| | | | | *295* | | | *295* |
| | | | | *(290)* | | | *(290)* |
| | | | | *0* | *44* | *(1)* | *43* |
| (5,627) | *(6,299)* | *51* | *621* | 53,246 | 687 | 56 | 53,989 |

## Statement of cash flows

| | Year-to-date | |
|---|---|---|
| *CHF million* | 30.9.17 | 30.9.16 |
| **Cash flow from / (used in) operating activities** | | |
| Net profit / (loss) | 3,307 | 2,649 |
| **Non-cash items included in net profit and other adjustments:** | | |
| Depreciation and impairment of property, equipment and software | 694 | 727 |
| Amortization and impairment of intangible assets | 53 | 70 |
| Credit loss expense / (recovery) | 39 | 13 |
| Share of net profits of associates | (49) | (89) |
| Deferred tax expense / (benefit) | 296 | 88 |
| Net loss / (gain) from investing activities | 85 | (783) |
| Net loss / (gain) from financing activities | 583 | 7,721 |
| Other net adjustments | (342) | (82) |
| **Net change in operating assets and liabilities:** | | |
| Due from / to banks | 27 | (475) |
| Cash collateral on securities borrowed and reverse repurchase agreements | (23,429) | (80) |
| Cash collateral on securities lent and repurchase agreements | 10,485 | (2,886) |
| Trading portfolio and replacement values | (7,436) | 9,746 |
| Financial assets designated at fair value | 15,526 | (65,541) |
| Cash collateral on derivative instruments | (2,199) | (3,996) |
| Loans | (11,627) | 2,060 |
| Due to customers | (17,054) | 25,849 |
| Other assets, provisions and other liabilities | (6,499) | (10,533) |
| Income taxes paid, net of refunds | (857) | (421) |
| **Net cash flow from / (used in) operating activities** | (38,397) | (35,963) |
| **Cash flow from / (used in) investing activities** | | |
| Purchase of subsidiaries, associates and intangible assets | (100) | (25) |
| Disposal of subsidiaries, associates and intangible assets[1] | 148 | 92 |
| Purchase of property, equipment and software | (1,064) | (1,359) |
| Disposal of property, equipment and software | 27 | 193 |
| Purchase of financial assets available for sale | (7,829) | (10,581) |
| Disposal and redemption of financial assets available for sale | 10,559 | 58,935 |
| Net (purchase) / redemption of financial assets held to maturity | 11 | (7,077) |
| **Net cash flow from / (used in) investing activities** | 1,752 | 40,179 |

Table continues on the next page.

## Statement of cash flows (continued)

Table continued from previous page.

| | Year-to-date | |
|---|---|---|
| *CHF million* | 30.9.17 | 30.9.16 |
| **Cash flow from / (used in) financing activities** | | |
| Net short-term debt issued / (repaid) | 21,855 | 11,127 |
| Distributions paid on UBS AG shares | (2,250) | (3,434) |
| Issuance of long-term debt, including financial liabilities designated at fair value | 40,066 | 28,481 |
| Repayment of long-term debt, including financial liabilities designated at fair value | (32,346) | (30,460) |
| Dividends paid and repayments of preferred notes | (45) | (1,366) |
| Net changes in non-controlling interests | (5) | (5) |
| Net cash flow from / (used in) financing activities | 27,275 | 4,344 |
| **Total cash flow** | | |
| Cash and cash equivalents at the beginning of the period | 121,107 | 102,962 |
| Net cash flow from / (used in) operating, investing and financing activities | (9,370) | 8,560 |
| Effects of exchange rate differences on cash and cash equivalents | (324) | (1,528) |
| Cash and cash equivalents at the end of the period[2] | 111,413 | 109,993 |
| *of which: cash and balances with central banks* | *94,563* | *94,617* |
| *of which: due from banks* | *13,753* | *13,986* |
| *of which: money market paper[3]* | *3,097* | *1,391* |
| **Additional information** | | |
| Net cash flow from / (used in) operating activities includes: | | |
| Interest received in cash | 9,132 | 8,953 |
| Interest paid in cash | 5,127 | 4,619 |
| Dividends on equity investments, investment funds and associates received in cash[4] | 1,465 | 1,323 |

1 Includes dividends received from associates. 2 CHF 2,559 million and CHF 3,932 million of cash and cash equivalents (mainly reflected in Due from banks) were restricted as of 30 September 2017 and 30 September 2016, respectively. Refer to Note 23 in the Annual Report 2016 for more information. 3 Money market paper is included in the balance sheet under Trading portfolio assets, Financial assets available for sale and Financial assets designated at fair value. 4 Includes dividends received from associates reported within Cash flow from / (used in) investing activities.

# Notes to the UBS AG interim consolidated financial statements (unaudited)

## Note 1 Basis of accounting

The consolidated financial statements (the Financial Statements) of UBS AG and its subsidiaries (together "UBS AG") are prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), and are presented in Swiss francs (CHF), which is also the functional currency of UBS AG's Head Office and its Swiss-based operations. These interim Financial Statements are prepared in accordance with IAS 34, *Interim Financial Reporting*.

In preparing these interim Financial Statements, the same accounting policies and methods of computation have been applied as in the UBS AG consolidated annual Financial Statements for the period ended 31 December 2016, except for the changes described in "Note 1 Basis of accounting" in the "Consolidated financial statements" section of the first quarter 2017 report. These interim Financial Statements are unaudited and should be read in conjunction with UBS AG's audited consolidated Financial Statements included in the Annual Report 2016. In the opinion of management, all necessary adjustments were made for a fair presentation of UBS AG's financial position, results of operations and cash flows.

Preparation of these interim Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities. These estimates and assumptions are based on the best available information. Actual results in the future could differ from such estimates, and such differences may be material to the Financial Statements. Revisions to estimates, based on regular reviews, are recognized in the period in which they occur. For more information on areas of estimation uncertainty considered to require critical judgment, refer to "Note 1a Significant accounting policies" in the "Consolidated financial statements" section of the Annual Report 2016.

### IFRS 9, *Financial Instruments*

UBS AG will adopt IFRS 9, *Financial Instruments* on 1 January 2018. UBS AG has made significant progress during 2017 in developing an appropriate expected credit loss (ECL) methodology and related reporting processes for all in-scope financial and non-financial instruments, including loans, financial guarantees and loan commitments. In addition, the changes driven by the IFRS 9 classification and measurement requirements have been confirmed. In the fourth quarter of 2017, UBS AG will finalize the definition and implementation of residual risk methodology approaches and governance frameworks, and complete various parallel runs.

UBS AG continues to believe that the impact on its equity and regulatory capital on adoption of IFRS 9 will not be material based on its current expectations of the macroeconomic environment and of the composition of its portfolio as of 1 January 2018.

On 1 January 2018, UBS AG will also early adopt the *Amendment to IFRS 9: Prepayment Features with Negative Compensation* issued in October 2017, allowing UBS AG to continue to apply amortized cost accounting for Swiss private mortgages and corporate loans that provide for two-way compensation if a prepayment occurs.

UBS AG will not adopt the optional IFRS 9 hedge accounting requirements pending completion of the IASB's project on macro hedge accounting strategies.

### IFRS 15, *Revenue from Contracts with Customers*

UBS AG will adopt IFRS 15, *Revenue from Contracts with Customers* on 1 January 2018. IFRS 15 will not have a material impact on its financial statements. However, the timing of recognition of certain performance-based fees and the presentation in the income statement of certain revenues and expenses will change.

### IAS 28, *Investments in Associates and Joint Ventures*

In October 2017, the IASB issued an amendment to IAS 28, *Investments in Associates and Joint Ventures* that clarified that entities must apply IFRS 9 in accounting for long-term interests in an associate or joint venture to which the equity method of accounting is not applied. The amendment is mandatorily effective for accounting periods beginning on or after 1 January 2019. However, earlier application is available with the adoption of IFRS 9, *Financial Instruments* on 1 January 2018. UBS AG intends to early adopt this amendment, which is not expected to have a significant effect on its financial statements.

## Note 2 Segment reporting

UBS AG's businesses are organized globally into five business divisions: Wealth Management, Wealth Management Americas, Personal & Corporate Banking, Asset Management and the Investment Bank, all of which are supported by Corporate Center. The five business divisions qualify as reportable segments for the purpose of segment reporting and, together with Corporate Center and its units, reflect the management structure of UBS AG. Corporate Center – Non-core and Legacy Portfolio is managed and reported as a separate reportable segment within Corporate Center. Refer to "Note 1a item 2 Segment reporting" and "Note 2 Segment reporting" in the "Consolidated financial statements" section of the Annual Report 2016 for more information on UBS AG's reporting segments.

| | Wealth Management | Wealth Management Americas | Personal & Corporate Banking | Asset Management | Investment Bank | Corporate Center | | | UBS AG |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | | | | | | Services | Group ALM | Non-core and Legacy Portfolio | |
| **For the nine months ended 30 September 2017** | | | | | | | | | |
| Net interest income | 1,532 | 1,161 | 1,427 | (23) | 855 | (265) | 112 | 22 | 4,822 |
| Non-interest income | 3,999 | 4,941 | 1,320 | 1,432 | 5,344 | 329 | 39 | 52 | 17,454 |
| Allocations from CC – Group ALM | 195 | 80 | 139 | 14 | (264) | 89 | (199) | (54) | 0 |
| Income | 5,726 | 6,182 | 2,886 | 1,422 | 5,935 | 153 | (50) | 19 | 22,276 |
| Credit loss (expense) / recovery | 0 | (3) | (23) | 0 | (10) | 0 | 0 | (3) | (39) |
| Total operating income | 5,726 | 6,180 | 2,864 | 1,422 | 5,925 | 153 | (50) | 16 | 22,237 |
| Personnel expenses | 1,789 | 3,846 | 646 | 542 | 2,306 | 2,064 | 25 | 34 | 11,253 |
| General and administrative expenses | 430 | 487 | 205 | 162 | 447 | 4,267 | 14 | (19) | 5,993 |
| Services (to) / from CC and other BDs | 1,707 | 934 | 817 | 374 | 2,008 | (5,997) | (10) | 167 | 0 |
| *of which: services from CC – Services* | *1,648* | *919* | *885* | *402* | *1,940* | *(6,038)* | *100* | *144* | *0* |
| Depreciation and impairment of property, equipment and software | 2 | 1 | 9 | 1 | 7 | 674 | 0 | 0 | 694 |
| Amortization and impairment of intangible assets | 3 | 31 | 0 | 3 | 9 | 6 | 0 | 0 | 53 |
| Total operating expenses[1] | 3,931 | 5,299 | 1,677 | 1,083 | 4,777 | 1,015 | 29 | 183 | 17,993 |
| **Operating profit / (loss) before tax** | **1,795** | **881** | **1,186** | **340** | **1,148** | **(861)** | **(79)** | **(167)** | **4,244** |
| Tax expense / (benefit) | | | | | | | | | 937 |
| **Net profit / (loss)** | | | | | | | | | **3,307** |
| **As of 30 September 2017** | | | | | | | | | |
| **Total assets** | **118,380** | **65,344** | **137,526** | **12,603** | **248,386** | **22,189** | **260,454** | **49,668** | **914,551** |
| **For the nine months ended 30 September 2016** | | | | | | | | | |
| Net interest income | 1,439 | 986 | 1,421 | (25) | 597 | (242) | 466 | (10) | 4,633 |
| Non-interest income | 3,773 | 4,652 | 1,359 | 1,450 | 5,262 | 161 | (84) | 109 | 16,684 |
| Allocations from CC – Group ALM | 302 | 70 | 261 | 6 | (182) | 37 | (414) | (80) | 0 |
| Income | 5,514 | 5,709 | 3,042 | 1,432 | 5,676 | (44) | (32) | 20 | 21,317 |
| Credit loss (expense) / recovery | (4) | (2) | 2 | 0 | (6) | 0 | 0 | (3) | (13) |
| Total operating income | 5,510 | 5,706 | 3,043 | 1,432 | 5,670 | (44) | (32) | 17 | 21,303 |
| Personnel expenses | 1,806 | 3,572 | 636 | 563 | 2,339 | 2,770 | 23 | 50 | 11,759 |
| General and administrative expenses | 404 | 428 | 186 | 172 | 574 | 3,105 | 10 | 544 | 5,423 |
| Services (to) / from CC and other BDs | 1,727 | 923 | 825 | 386 | 2,072 | (6,110) | (33) | 210 | 0 |
| *of which: services from CC – Services* | *1,664* | *913* | *902* | *404* | *2,009* | *(6,139)* | *80* | *167* | *0* |
| Depreciation and impairment of property, equipment and software | 2 | 1 | 11 | 1 | 18 | 693 | 0 | 0 | 727 |
| Amortization and impairment of intangible assets | 3 | 39 | 0 | 3 | 9 | 16 | 0 | 0 | 70 |
| Total operating expenses[1] | 3,942 | 4,964 | 1,657 | 1,125 | 5,013 | 475 | (1) | 805 | 17,979 |
| **Operating profit / (loss) before tax** | **1,568** | **742** | **1,386** | **307** | **658** | **(519)** | **(32)** | **(787)** | **3,324** |
| Tax expense / (benefit) | | | | | | | | | 675 |
| **Net profit / (loss)** | | | | | | | | | **2,649** |
| **As of 31 December 2016** | | | | | | | | | |
| **Total assets** | **115,539** | **65,882** | **139,945** | **12,026** | **242,388** | **23,813** | **267,275** | **68,485** | **935,353** |

1 Refer to Note 15 for information on restructuring expenses.

## Note 3 Net fee and commission income

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| Underwriting fees | 312 | 359 | 232 | (13) | 34 | 1,047 | 761 |
| *of which: equity underwriting fees* | *205* | *224* | *124* | *(8)* | *65* | *667* | *374* |
| *of which: debt underwriting fees* | *107* | *135* | *109* | *(21)* | *(2)* | *380* | *387* |
| M&A and corporate finance fees | 174 | 170 | 162 | 2 | 7 | 521 | 477 |
| Brokerage fees | 803 | 862 | 843 | (7) | (5) | 2,607 | 2,691 |
| Investment fund fees | 789 | 795 | 774 | (1) | 2 | 2,398 | 2,367 |
| Portfolio management and advisory fees | 2,155 | 2,107 | 2,031 | 2 | 6 | 6,300 | 5,965 |
| Other | 460 | 453 | 456 | 2 | 1 | 1,373 | 1,320 |
| **Total fee and commission income** | 4,694 | 4,745 | 4,498 | (1) | 4 | 14,246 | 13,582 |
| Brokerage fees paid | 162 | 179 | 173 | (9) | (6) | 506 | 562 |
| Other | 280 | 270 | 251 | 4 | 12 | 821 | 737 |
| **Total fee and commission expense** | 442 | 449 | 423 | (2) | 4 | 1,327 | 1,299 |
| **Net fee and commission income** | 4,252 | 4,296 | 4,075 | (1) | 4 | 12,920 | 12,283 |
| *of which: net brokerage fees* | *641* | *683* | *671* | *(6)* | *(4)* | *2,101* | *2,129* |

## Note 4 Other income

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| **Associates and subsidiaries** | | | | | | | |
| Net gains / (losses) from disposals of subsidiaries[1] | 3 | (18) | (5) | | | (19) | (177) |
| Share of net profits of associates | 14 | 17 | 49 | (18) | (71) | 49 | 89 |
| **Total** | 17 | (2) | 44 | | (61) | 30 | (88) |
| **Financial assets available for sale** | | | | | | | |
| Net gains / (losses) from disposals | 11 | 129 | 18 | (91) | (39) | 147 | 255 |
| Impairment charges | 0 | 1 | (1) | (100) | (100) | (13) | (4) |
| **Total** | 10 | 131 | 17 | (92) | (41) | 133 | 250 |
| Net income from properties (excluding net gains / (losses) from disposals)[2] | 6 | 6 | 5 | 0 | 20 | 18 | 19 |
| Net gains / (losses) from disposals of properties held for sale | 0 | 0 | 1 | | (100) | (1) | 121 |
| Net gains / (losses) from disposals of loans and receivables | 2 | (2) | (3) | | | 17 | (4) |
| Other | 165 | 152 | 50 | 9 | 230 | 346 | 103 |
| **Total other income** | 200 | 285 | 113 | (30) | 77 | 544 | 401 |

1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to disposed foreign subsidiaries and branches. 2 Includes net rent received from third parties and net operating expenses.

## Note 5 Personnel expenses

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| Salaries and variable compensation | 2,103 | 2,125 | 2,391 | (1) | (12) | 6,661 | 7,236 |
| Wealth Management Americas: Financial advisor compensation[1] | 976 | 992 | 913 | (2) | 7 | 2,956 | 2,733 |
| Contractors | 83 | 72 | 103 | 15 | (19) | 247 | 321 |
| Social security | 183 | 166 | 210 | 10 | (13) | 547 | 546 |
| Pension and other post-employment benefit plans | 132 | 133 | 158 | (1) | (16) | 464 | 507 |
| Other personnel expenses | 122 | 123 | 133 | (1) | (8) | 377 | 417 |
| **Total personnel expenses[2]** | 3,598 | 3,611 | 3,907 | 0 | (8) | 11,253 | 11,759 |

1 Financial advisor compensation consists of grid-based compensation based directly on compensable revenues generated by financial advisors and supplemental compensation calculated on the basis of financial advisor productivity, firm tenure, assets and other variables. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. 2 Includes restructuring expenses. Refer to Note 15 for more information.

## Note 6 General and administrative expenses

| | For the quarter ended | | | % change from | | Year-to-date | |
|---|---|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 2Q17 | 3Q16 | 30.9.17 | 30.9.16 |
| Occupancy | 204 | 208 | 225 | (2) | (9) | 628 | 675 |
| Rent and maintenance of IT and other equipment | 91 | 97 | 113 | (6) | (19) | 331 | 379 |
| Communication and market data services | 129 | 126 | 153 | 2 | (16) | 409 | 476 |
| Administration[1] | 882 | 1,005 | 220 | (12) | 301 | 2,109 | 623 |
| Marketing and public relations | 66 | 67 | 101 | (1) | (35) | 225 | 328 |
| Travel and entertainment | 87 | 97 | 84 | (10) | 4 | 270 | 311 |
| Professional fees | 275 | 253 | 268 | 9 | 3 | 781 | 866 |
| Outsourcing of IT and other services | 320 | 218 | 374 | 47 | (14) | 908 | 1,182 |
| Provisions for litigation, regulatory and similar matters[2] | 197 | 9 | 419 | | (53) | 239 | 530 |
| Other | 32 | 31 | 27 | 3 | 19 | 93 | 55 |
| **Total general and administrative expenses[3]** | 2,282 | 2,111 | 1,985 | 8 | 15 | 5,993 | 5,423 |

1 Includes credits related to the UK bank levy of CHF 71 million for the first nine months of 2017, of which CHF 46 million was recorded in the second quarter of 2017 and CHF 25 million in the first quarter of 2017. 2 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. The third quarter of 2017 included an indemnification payment of CHF 245 million to BTG Investments. Refer to Note 13 for more information. Also includes recoveries from third parties (third quarter of 2017: CHF 50 million; second quarter of 2017: CHF 1 million; third quarter of 2016: CHF 0 million). 3 Includes restructuring expenses. Refer to Note 15 for more information.

## Note 7 Income taxes

UBS AG recognized a net income tax expense of CHF 256 million for the third quarter of 2017 compared with a net income tax expense of CHF 41 million for the third quarter of 2016.

The third quarter 2017 net income tax expense included tax expenses of CHF 430 million in respect of current-year taxable profits. This included current tax expenses of CHF 217 million and deferred tax expenses of CHF 213 million, the latter mainly representing amortization of prior-year Swiss tax loss and temporary difference deferred tax assets (DTAs).

The third quarter 2017 net income tax expense also included a net upward revaluation of DTAs of CHF 174 million. This net benefit reflected an increase in US DTAs of CHF 224 million, partly offset by a net write-down of Swiss DTAs of CHF 50 million. The increase in US DTAs was primarily driven by higher profit forecasts for Wealth Management Americas. The write-down of Swiss DTAs primarily reflected a reduction in the effective tax rate at which the Swiss DTAs are measured, resulting from a change in the mix of forecast profits principally between operating income and dividends.

The interim Financial Statements have been prepared on the basis that UBS Limited is able to offset part of its taxable profits with prior-year tax losses transferred from UBS AG in 2014 and 2015. During 2016, the UK tax authorities indicated that they do not agree with this tax return filing position, but the authorities have recently advised UBS that they accept that a transfer can occur and will now proceed to examine the amount of losses to be transferred. UBS believes that any differences between the final transfer amount to be agreed with the UK tax authorities and the original tax return filing position will not be material to the financial statements.

In the fourth quarter of 2017, we expect to recognize a further net upward revaluation of DTAs, representing approximately 25% of the full-year revaluation, as adjusted for any further revaluations that may be required following the finalization of the business plans in the quarter.

## Note 8 Fair value measurement

This Note provides fair value measurement information for both financial and non-financial instruments and should be read in conjunction with "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016, which provides more information on valuation principles, valuation governance, valuation techniques, valuation adjustments, fair value hierarchy classification, valuation inputs, sensitivity of fair value measurements and methods applied to calculate fair values for financial instruments not measured at fair value.

## Note 8 Fair value measurement (continued)

### a) Fair value hierarchy

The fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value is summarized in the table below.

**Determination of fair values from quoted market prices or valuation techniques[1]**

| | 30.9.17 | | | | 30.6.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Assets measured at fair value on a recurring basis** | | | | | | | | | | | | |
| Financial assets held for trading[2] | 91,067 | 17,118 | 1,974 | 110,159 | 87,651 | 14,011 | 1,593 | 103,255 | 76,046 | 14,377 | 1,689 | 92,112 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *14,331* | *1,420* | *0* | *15,751* | *14,244* | *992* | *0* | *15,236* | *10,500* | *1,319* | *0* | *11,820* |
| *Corporate and municipal bonds* | *60* | *8,224* | *543* | *8,827* | *55* | *7,173* | *788* | *8,016* | *58* | *6,722* | *591* | *7,371* |
| *Loans* | *0* | *3,173* | *1,109* | *4,282* | *0* | *1,371* | *502* | *1,873* | *0* | *1,356* | *681* | *2,037* |
| *Investment fund units* | *5,080* | *2,911* | *17* | *8,009* | *5,242* | *2,946* | *25* | *8,213* | *6,114* | *3,521* | *63* | *9,698* |
| *Asset-backed securities* | *0* | *271* | *157* | *428* | *0* | *340* | *146* | *486* | *0* | *470* | *215* | *685* |
| *Equity instruments* | *62,684* | *282* | *80* | *63,046* | *58,971* | *517* | *62* | *59,549* | *50,916* | *397* | *65* | *51,378* |
| *Financial assets for unit-linked investment contracts* | *8,912* | *837* | *67* | *9,816* | *9,140* | *672* | *69* | *9,881* | *8,459* | *591* | *74* | *9,123* |
| Positive replacement values | 599 | 117,307 | 1,556 | 119,462 | 699 | 119,292 | 1,919 | 121,910 | 434 | 155,428 | 2,549 | 158,411 |
| *of which:* | | | | | | | | | | | | |
| *Interest rate contracts* | *2* | *45,213* | *149* | *45,364* | *1* | *47,589* | *161* | *47,751* | *8* | *57,703* | *278* | *57,988* |
| *Credit derivative contracts* | *0* | *2,724* | *613* | *3,338* | *0* | *2,245* | *777* | *3,023* | *0* | *2,562* | *1,313* | *3,875* |
| *Foreign exchange contracts* | *320* | *47,410* | *193* | *47,923* | *278* | *51,601* | *182* | *52,062* | *263* | *75,607* | *222* | *76,092* |
| *Equity / index contracts* | *9* | *20,231* | *600* | *20,840* | *18* | *16,568* | *799* | *17,385* | *1* | *17,274* | *729* | *18,003* |
| *Commodity contracts* | *0* | *1,495* | *0* | *1,495* | *0* | *1,249* | *0* | *1,250* | *0* | *2,269* | *8* | *2,277* |
| Financial assets designated at fair value | 18,864 | 29,904 | 1,605 | 50,374 | 21,488 | 28,367 | 1,580 | 51,436 | 39,641 | 23,304 | 2,079 | 65,024 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *17,994* | *3,208* | *0* | *21,201* | *20,579* | *3,916* | *0* | *24,494* | *39,439* | *4,361* | *0* | *43,799* |
| *Corporate and municipal bonds* | *686* | *21,142* | *0* | *21,828* | *730* | *20,575* | *0* | *21,306* | *15* | *16,860* | *0* | *16,875* |
| *Loans (including structured loans)* | *0* | *5,406* | *539* | *5,945* | *0* | *3,809* | *483* | *4,293* | *0* | *2,043* | *1,195* | *3,238* |
| *Structured reverse repurchase and securities borrowing agreements* | *0* | *149* | *547* | *696* | *0* | *65* | *577* | *643* | *0* | *40* | *644* | *684* |
| *Other* | *185* | *0* | *519* | *704* | *179* | *1* | *520* | *701* | *187* | *0* | *240* | *427* |
| Financial assets available for sale | 7,437 | 5,087 | 520 | 13,043 | 7,675 | 5,969 | 470 | 14,114 | 6,299 | 8,891 | 486 | 15,676 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *5,165* | *225* | *0* | *5,391* | *5,510* | *261* | *0* | *5,771* | *5,444* | *450* | *0* | *5,894* |
| *Corporate and municipal bonds* | *2,108* | *1,090* | *7* | *3,206* | *2,000* | *2,097* | *12* | *4,109* | *646* | *4,939* | *12* | *5,596* |
| *Investment fund units* | *0* | *70* | *115* | *184* | *0* | *69* | *99* | *168* | *0* | *51* | *126* | *177* |
| *Asset-backed securities* | *0* | *3,687* | *0* | *3,687* | *0* | *3,527* | *0* | *3,527* | *0* | *3,381* | *0* | *3,381* |
| *Equity instruments* | *163* | *15* | *398* | *576* | *165* | *14* | *359* | *539* | *204* | *71* | *336* | *611* |
| Non-financial assets | | | | | | | | | | | | |
| Precious metals and other physical commodities | 4,283 | 0 | 0 | 4,283 | 4,508 | 0 | 0 | 4,508 | 4,583 | 0 | 0 | 4,583 |
| **Assets measured at fair value on a non-recurring basis** | | | | | | | | | | | | |
| Other assets[3] | 0 | 58 | 34 | 92 | 0 | 61 | 34 | 95 | 5,060 | 131 | 56 | 5,248 |
| **Total assets measured at fair value** | 122,250 | 169,475 | 5,688 | 297,413 | 122,021 | 167,702 | 5,596 | 295,318 | 132,064 | 202,132 | 6,860 | 341,056 |

## Note 8 Fair value measurement (continued)

**Determination of fair values from quoted market prices or valuation techniques (continued)[1]**

| | 30.9.17 | | | | 30.6.17 | | | | 31.12.16 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| **Liabilities measured at fair value on a recurring basis** | | | | | | | | | | | | |
| Trading portfolio liabilities | 24,760 | 5,797 | 65 | 30,622 | 20,539 | 4,695 | 87 | 25,321 | 18,808 | 3,898 | 119 | 22,825 |
| *of which:* | | | | | | | | | | | | |
| *Government bills / bonds* | *7,178* | *731* | *0* | *7,909* | *6,378* | *591* | *0* | *6,969* | *5,573* | *648* | *0* | *6,221* |
| *Corporate and municipal bonds* | *32* | *4,513* | *21* | *4,565* | *39* | *3,799* | *6* | *3,844* | *12* | *2,927* | *37* | *2,976* |
| *Investment fund units* | *729* | *257* | *0* | *986* | *547* | *51* | *0* | *599* | *484* | *91* | *20* | *595* |
| *Equity instruments* | *16,821* | *295* | *45* | *17,160* | *13,574* | *254* | *80* | *13,908* | *12,740* | *227* | *62* | *13,028* |
| Negative replacement values | 564 | 112,391 | 2,502 | 115,457 | 650 | 115,528 | 2,849 | 119,027 | 539 | 149,255 | 4,016 | 153,810 |
| *of which:* | | | | | | | | | | | | |
| *Interest rate contracts* | *9* | *38,885* | *405* | *39,298* | *1* | *41,046* | *317* | *41,365* | *12* | *51,990* | *475* | *52,476* |
| *Credit derivative contracts* | *0* | *3,824* | *340* | *4,164* | *0* | *2,997* | *963* | *3,960* | *0* | *3,269* | *1,538* | *4,807* |
| *Foreign exchange contracts* | *293* | *46,178* | *125* | *46,596* | *287* | *50,996* | *138* | *51,421* | *274* | *71,668* | *148* | *72,089* |
| *Equity / index contracts* | *5* | *22,159* | *1,630* | *23,794* | *11* | *19,341* | *1,430* | *20,783* | *1* | *20,254* | *1,854* | *22,109* |
| *Commodity contracts* | *0* | *1,236* | *1* | *1,237* | *0* | *1,116* | *0* | *1,116* | *0* | *2,040* | *1* | *2,041* |
| Financial liabilities designated at fair value | 5 | 44,386 | 12,194 | 56,585 | 10 | 42,074 | 12,131 | 54,215 | 2 | 44,007 | 11,008 | 55,017 |
| *of which:* | | | | | | | | | | | | |
| *Issued debt instruments* | *4* | *39,181* | *10,358* | *49,543* | *9* | *37,693* | *10,228* | *47,930* | *0* | *40,242* | *9,688* | *49,930* |
| *Over-the-counter debt instruments* | *2* | *4,672* | *1,781* | *6,455* | *2* | *3,994* | *1,850* | *5,846* | *2* | *3,611* | *1,050* | *4,663* |
| *Structured repurchase agreements* | *0* | *529* | *51* | *580* | *0* | *381* | *48* | *429* | *0* | *130* | *266* | *395* |
| *Loan commitments and guarantees* | *0* | *4* | *4* | *8* | *0* | *6* | *4* | *10* | *0* | *25* | *5* | *29* |
| Other liabilities – amounts due under unit-linked investment contracts | 0 | 9,893 | 0 | 9,893 | 0 | 10,099 | 0 | 10,099 | 0 | 9,286 | 0 | 9,286 |
| **Liabilities measured at fair value on a non-recurring basis** | | | | | | | | | | | | |
| Other liabilities[3] | 0 | 2 | 0 | 2 | 0 | 5 | 0 | 5 | 0 | 5,213 | 0 | 5,213 |
| **Total liabilities measured at fair value** | 25,329 | 172,469 | 14,762 | 212,560 | 21,199 | 172,402 | 15,067 | 208,667 | 19,349 | 211,660 | 15,143 | 246,152 |

1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are excluded from this table. As of 30 September 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 26 million (of which CHF 31 million were net Level 2 assets and CHF 5 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 30 June 2017, net bifurcated embedded derivative assets held at fair value totaling CHF 31 million (of which CHF 36 million were net Level 2 assets and CHF 5 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. As of 31 December 2016, net bifurcated embedded derivative assets held at fair value totaling CHF 50 million (of which CHF 58 million were net Level 2 assets and CHF 8 million net Level 2 liabilities) were recognized on the balance sheet within Due to customers and Debt issued. 2 Financial assets held for trading exclude precious metals and other physical commodities. 3 Other assets and other liabilities primarily consist of assets held for sale as well as assets and liabilities of a disposal group held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell.

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which the instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
- Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data; or
- Level 3 – valuation techniques for which significant inputs are not based on observable market data.

## Note 8 Fair value measurement (continued)

### b) Valuation adjustments

#### Day-1 reserves

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period.

Deferred day-1 profit or loss related to financial instruments other than financial assets available for sale is released into *Net trading income* when pricing of equivalent products or the underlying parameters become observable or when the transaction is closed out.

Deferred day-1 profit or loss related to financial assets available for sale is released into *Other comprehensive income* when pricing of equivalent products or the underlying parameters become observable and is released into *Other income* when the assets are sold.

**Deferred day-1 profit or loss**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| **Balance at the beginning of the period** | 349 | 365 | 444 | 371 | 421 |
| Profit / (loss) deferred on new transactions | 76 | 65 | 67 | 192 | 227 |
| (Profit) / loss recognized in the income statement | (79) | (66) | (105) | (199) | (216) |
| (Profit) / loss recognized in other comprehensive income | 0 | 0 | 0 | 0 | (23) |
| Foreign currency translation | 5 | (15) | (2) | (13) | (7) |
| **Balance at the end of the period** | 351 | 349 | 403 | 351 | 403 |

### c) Transfers between Level 1 and Level 2

The amounts disclosed reflect transfers between Level 1 and Level 2 for instruments that were held for the entire reporting period.

Assets totaling approximately CHF 0.7 billion, which were mainly comprised of financial assets designated at fair value and trading portfolio assets, primarily corporate and municipal bonds as well as investment fund units, were transferred from Level 2 to Level 1 during the first nine months of 2017, generally due to increased levels of trading activity observed within the market. Liabilities transferred from Level 2 to Level 1 during the first nine months of 2017 were negligible.

Assets totaling approximately CHF 0.2 billion, which were mainly comprised of financial assets available for sale, largely government bills / bonds, were transferred from Level 1 to Level 2 during the first nine months of 2017, generally due to diminished levels of trading activity observed in the market. Liabilities transferred from Level 1 to Level 2 during the first nine months of 2017 were negligible.

## Note 8 Fair value measurement (continued)

### d) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities together with the valuation techniques used to measure fair value, the significant inputs used in the valuation technique that are considered unobservable and a range of values for those unobservable inputs.

The range of values represents the highest and lowest level input used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input, but rather the different underlying characteristics of the relevant assets and liabilities. The ranges and weighted averages will vary from period to period and from parameter to parameter based on characteristics of the instruments held at each balance sheet date. Further, the ranges and weighted averages of unobservable inputs may differ across other financial institutions due to the diversity of the products in each firm's inventory.

The significant unobservable inputs disclosed in the table below are generally consistent with those included in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016. A description of the potential effect that a change in each unobservable input in isolation may have on a fair value measurement, including information to facilitate an understanding of factors that give rise to the input ranges shown, is also provided in "Note 22 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2016.

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 30.9.17 | | | 31.12.16 | | | |
| *CHF billion* | 30.9.17 | 31.12.16 | 30.9.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Financial assets held for trading / Trading portfolio liabilities, Financial assets / liabilities designated at fair value and Financial assets available for sale** | | | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.6* | *0.6* | *0.0* | *0.0* | Relative value to market comparable | Bond price equivalent | 0 | 133 | 88 | 0 | 128 | 88 | points |
| *Traded loans, loans designated at fair value, loan commitments and guarantees* | *2.1* | *2.0* | *0.0* | *0.0* | Relative value to market comparable | Loan price equivalent | 82 | 102 | 93 | 39 | 103 | 94 | points |
| | | | | | Discounted expected cash flows | Credit spread | 29 | 177 | | 71 | 554 | | basis points |
| | | | | | Market comparable and securitization model | Discount margin | 0 | 14 | 2 | 0 | 16 | 2 | % |
| *Structured (reverse) repurchase agreements* | *0.5* | *0.6* | *0.1* | *0.3* | Discounted expected cash flows | Funding spread | 15 | 195 | | 15 | 195 | | basis points |
| *Issued and over-the-counter debt instruments[3]* | | | *12.1* | *10.7* | | | | | | | | | |

## Note 8 Fair value measurement (continued)

**Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities (continued)**

| | Fair value | | | | | | Range of inputs | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assets | | Liabilities | | | | 30.9.17 | | | 31.12.16 | | | |
| *CHF billion* | 30.9.17 | 31.12.16 | 30.9.17 | 31.12.16 | Valuation technique(s) | Significant unobservable input(s)[1] | low | high | weighted average[2] | low | high | weighted average[2] | unit[1] |
| **Replacement values** | | | | | | | | | | | | | |
| *Interest rate contracts* | *0.1* | *0.3* | *0.4* | *0.5* | Option model | Volatility of interest rates | 24 | 136 | | 26 | 176 | | % |
| | | | | | | Rate-to-rate correlation | 84 | 94 | | 84 | 94 | | % |
| | | | | | | Intra-curve correlation | 73 | 100 | | 36 | 94 | | % |
| *Credit derivative contracts* | *0.6* | *1.3* | *0.3* | *1.5* | Discounted expected cash flow based on modeled defaults and recoveries | Credit spreads | 0 | 689 | | 0 | 791 | | basis points |
| | | | | | | Upfront price points | 1 | 70 | | 1 | 13 | | % |
| | | | | | | Recovery rates | 15 | 50 | | 0 | 50 | | % |
| | | | | | | Discount margin | 0 | 13 | | (1) | 68 | | % |
| | | | | | Discounted cash flow projection on underlying bond | Constant prepayment rate | 6 | 12 | | 1 | 15 | | % |
| | | | | | | Constant default rate | 1 | 5 | | 1 | 8 | | % |
| | | | | | | Loss severity | 40 | 90 | | 40 | 100 | | % |
| | | | | | | Discount margin | 1 | 6 | | 0 | 11 | | % |
| | | | | | | Bond price equivalent | 3 | 161 | | 3 | 100 | | points |
| *Equity / index contracts* | *0.6* | *0.7* | *1.6* | *1.9* | Option model | Equity dividend yields | 0 | 15 | | 0 | 15 | | % |
| | | | | | | Volatility of equity stocks, equity and other indices | 0 | 225 | | 0 | 150 | | % |
| | | | | | | Equity-to-FX correlation | (38) | 82 | | (45) | 82 | | % |
| | | | | | | Equity-to-equity correlation | (50) | 98 | | 12 | 98 | | % |

1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par (e.g., 100 points would be 100% of par). 2 Weighted averages are provided for non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to derivative contracts as this would not be meaningful. 3 Valuation techniques, significant unobservable inputs and the respective input ranges for issued debt instruments and over-the-counter debt instruments are the same as the equivalent derivative or structured financing instruments presented elsewhere in this table.

**Note 8 Fair value measurement (continued)**

## e) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible alternative assumptions would change fair value significantly, and the estimated effect thereof.

The table shown presents the favorable and unfavorable effects for each class of financial assets and liabilities for which the potential change in fair value is considered significant. The sensitivity data presented represent an estimation of valuation uncertainty based on reasonably possible alternative values for Level 3 inputs at the balance sheet date and does not represent the estimated effect of stress scenarios. Typically, these financial assets and liabilities are sensitive to a combination of inputs from Levels 1 through 3. Although well-defined interdependencies may exist between Levels 1–2 and Level 3 parameters (e.g., between interest rates, which are generally Level 1 or Level 2, and prepayments, which are generally Level 3), these have not been incorporated in the table. Further, direct interrelationships between the Level 3 parameters are not a significant element of the valuation uncertainty.

**Sensitivity of fair value measurements to changes in unobservable input assumptions**

| | 30.9.17 | | 30.6.17 | | 31.12.16 | |
|---|---|---|---|---|---|---|
| *CHF million* | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] | Favorable changes[1] | Unfavorable changes[1] |
| Corporate and municipal bonds | 17 | (16) | 15 | (20) | 34 | (39) |
| Traded loans, loans designated at fair value, loan commitments and guarantees | 83 | (12) | 80 | (8) | 82 | (10) |
| Equity instruments | 67 | (45) | 71 | (50) | 67 | (47) |
| Interest rate derivative contracts, net | 31 | (47) | 22 | (40) | 41 | (42) |
| Credit derivative contracts, net | 98 | (126) | 119 | (136) | 131 | (183) |
| Foreign exchange derivative contracts, net | 11 | (6) | 12 | (6) | 17 | (8) |
| Equity / index derivative contracts, net | 64 | (63) | 73 | (81) | 63 | (63) |
| Issued and over-the-counter debt instruments | 92 | (92) | 85 | (89) | 96 | (93) |
| Other | 26 | (24) | 23 | (23) | 29 | (31) |
| **Total** | 489 | (431) | 499 | (452) | 560 | (517) |

1 Of the total favorable changes, CHF 74 million as of 30 September 2017 (30 June 2017: CHF 72 million; 31 December 2016: CHF 75 million) related to financial assets available for sale. Of the total unfavorable changes, CHF 53 million as of 30 September 2017 (30 June 2017: CHF 51 million; 31 December 2016: CHF 55 million) related to financial assets available for sale.

## f) Level 3 instruments: movements during the period

### Significant changes in Level 3 instruments

The table on the following pages presents additional information about material Level 3 assets and liabilities measured at fair value on a recurring basis. Level 3 assets and liabilities may be hedged with instruments classified as Level 1 or Level 2 in the fair value hierarchy, and, as a result, realized and unrealized gains and losses included in the table may not include the effect of related hedging activity. Furthermore, the realized and unrealized gains and losses presented within the table are not limited solely to those arising from Level 3 inputs, as valuations are generally derived from both observable and unobservable parameters.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Assets transferred into and out of Level 3 totaled CHF 0.7 billion and CHF 1.0 billion, respectively. Transfers into Level 3 were primarily comprised of equity / index contracts and equity instruments, and were mainly due to decreased observability of the respective equity volatility and market pricing inputs. Transfers out of Level 3 were primarily comprised of equity / index and credit derivative contracts, reflecting increased observability of the respective equity volatility and credit spread inputs.

Liabilities transferred into and out of Level 3 totaled CHF 0.8 billion and CHF 2.7 billion, respectively. Transfers into Level 3 were primarily comprised of equity-linked issued debt instruments, due to decreased observability of the respective equity volatility inputs used to determine the fair value of the options embedded in these structures. Transfers out of Level 3 were primarily comprised of equity-linked issued debt instruments, credit derivative and equity / index contracts resulting from changes in the availability of the observable equity volatility and credit spread inputs used to determine the fair value of the options embedded in these structures.

## Note 8 Fair value measurement (continued)

**Movements of Level 3 instruments**

| | | Total gains / (losses) included in comprehensive income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *CHF billion* | **Balance as of 31 December 2015** | Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | **Balance as of 30 September 2016** |
| Financial assets held for trading | 2.1 | 0.0 | *(0.1)* | 0.8 | (4.2) | 2.9 | 0.0 | 0.5 | (0.3) | (0.1) | 1.7 |
| *of which:* | | | | | | | | | | | |
| *Corporate and municipal bonds* | *0.7* | *0.1* | *0.0* | *0.5* | *(0.6)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *(0.1)* | *0.7* |
| *Loans* | *0.8* | *0.0* | *0.0* | *0.1* | *(3.0)* | *2.9* | *0.0* | *0.1* | *(0.2)* | *0.0* | *0.6* |
| *Other* | *0.6* | *(0.1)* | *(0.1)* | *0.2* | *(0.6)* | *0.0* | *0.0* | *0.4* | *0.0* | *0.0* | *0.4* |
| Financial assets designated at fair value | 3.3 | (0.1) | *(0.1)* | 0.0 | 0.0 | 0.6 | (1.5) | 0.4 | (0.1) | (0.1) | 2.5 |
| *of which:* | | | | | | | | | | | |
| *Loans (including structured loans)* | *1.7* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.5* | *(0.6)* | *0.4* | *(0.1)* | *(0.1)* | *1.7* |
| *Structured reverse repurchase and securities borrowing agreements* | *1.5* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* | *(0.9)* | *0.0* | *0.0* | *0.0* | *0.7* |
| *Other* | *0.1* | *0.1* | *0.1* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.2* |
| Financial assets available for sale | 0.7 | 0.0 | *0.0* | 0.1 | (0.1) | 0.0 | 0.0 | 0.0 | (0.1) | 0.0 | 0.6 |
| Positive replacement values | 2.9 | (0.2) | *(0.2)* | 0.0 | 0.0 | 0.7 | (1.4) | 0.9 | (0.1) | (0.1) | 2.6 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.3* | *(0.5)* | *0.2* | *0.0* | *(0.1)* | *1.1* |
| *Equity / index contracts* | *1.0* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.3* | *(0.4)* | *0.2* | *(0.1)* | *0.0* | *0.8* |
| *Other* | *0.6* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.2* | *(0.5)* | *0.5* | *0.0* | *0.0* | *0.7* |
| Negative replacement values | 3.3 | 0.8 | *0.8* | 0.0 | 0.0 | 0.7 | (1.3) | 0.9 | (0.4) | 0.1 | 3.9 |
| *of which:* | | | | | | | | | | | |
| *Credit derivative contracts* | *1.3* | *0.7* | *0.7* | *0.0* | *0.0* | *0.0* | *(0.4)* | *0.1* | *(0.1)* | *0.0* | *1.6* |
| *Equity / index contracts* | *1.4* | *(0.1)* | *(0.2)* | *0.0* | *0.0* | *0.6* | *(0.4)* | *0.2* | *(0.2)* | *0.0* | *1.5* |
| *Other* | *0.6* | *0.2* | *0.2* | *0.0* | *0.0* | *0.0* | *(0.4)* | *0.7* | *(0.1)* | *0.1* | *0.9* |
| Financial liabilities designated at fair value | 10.7 | 0.6 | *0.5* | 0.0 | 0.0 | 3.1 | (2.5) | 1.2 | (2.3) | (0.2) | 10.5 |
| *of which:* | | | | | | | | | | | |
| *Issued debt instruments* | *9.3* | *0.6* | *0.5* | *0.0* | *0.0* | *2.6* | *(1.6)* | *1.1* | *(2.3)* | *(0.2)* | *9.6* |
| *Over-the-counter debt instruments* | *0.8* | *0.0* | *0.0* | *0.0* | *0.0* | *0.4* | *(0.5)* | *0.1* | *0.0* | *0.0* | *0.7* |
| *Structured repurchase agreements* | *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.1* | *(0.4)* | *0.0* | *0.0* | *0.0* | *0.3* |

1 Total Level 3 assets as of 30 September 2017 were CHF 5.7 billion (30 June 2017: CHF 5.6 billion; 31 December 2016: CHF 6.9 billion). Total Level 3 liabilities as of 30 September 2017 were CHF 14.8 billion (30 June 2017: CHF 15.1 billion; 31 December 2016: CHF 15.1 billion).

## Note 8 Fair value measurement (continued)

| | Total gains / (losses) included in comprehensive income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | Net interest income, net trading income and other income | *of which: related to Level 3 instruments held at the end of the reporting period* | Purchases | Sales | Issuances | Settlements | Transfers into Level 3 | Transfers out of Level 3 | Foreign currency translation | Balance as of 30 September 2017[1] |
| **1.7** | 0.0 | *0.0* | 0.5 | (2.4) | 2.2 | 0.0 | 0.3 | (0.2) | 0.0 | 2.0 |
| *0.6* | *0.0* | *0.0* | *0.3* | *(0.4)* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* | *0.5* |
| *0.7* | *0.1* | *0.0* | *0.0* | *(1.8)* | *2.2* | *0.0* | *0.0* | *(0.1)* | *0.0* | *1.1* |
| *0.4* | *(0.1)* | *0.0* | *0.1* | *(0.2)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.0* | *0.3* |
| **2.1** | 0.0 | *0.0* | 0.0 | 0.0 | 0.3 | (0.8) | 0.1 | (0.1) | 0.0 | 1.6 |
| *1.2* | *0.1* | *0.1* | *0.0* | *0.0* | *0.0* | *(0.7)* | *0.0* | *(0.1)* | *0.0* | *0.5* |
| *0.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *0.5* |
| *0.2* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.3* | *0.0* | *0.1* | *0.0* | *0.0* | *0.5* |
| **0.5** | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.5 |
| **2.5** | (0.2) | *(0.3)* | 0.0 | 0.0 | 0.7 | (1.0) | 0.2 | (0.7) | 0.0 | 1.6 |
| *1.3* | *(0.2)* | *(0.2)* | *0.0* | *0.0* | *0.0* | *(0.4)* | *0.0* | *(0.3)* | *0.0* | *0.6* |
| *0.7* | *(0.1)* | *(0.1)* | *0.0* | *0.0* | *0.6* | *(0.4)* | *0.1* | *(0.4)* | *0.0* | *0.6* |
| *0.5* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.0* | *(0.2)* | *0.0* | *(0.1)* | *0.0* | *0.3* |
| **4.0** | 0.1 | *(0.1)* | 0.0 | 0.0 | 0.4 | (0.9) | 0.2 | (1.3) | 0.0 | 2.5 |
| *1.5* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.1* | *(0.5)* | *0.0* | *(0.8)* | *0.0* | *0.3* |
| *1.9* | *0.1* | *0.1* | *0.0* | *0.0* | *0.3* | *(0.3)* | *0.1* | *(0.5)* | *0.0* | *1.6* |
| *0.6* | *0.0* | *(0.1)* | *0.0* | *0.0* | *0.1* | *(0.1)* | *0.1* | *0.0* | *0.0* | *0.5* |
| **11.0** | 1.1 | *0.8* | 0.0 | 0.0 | 5.2 | (4.0) | 0.6 | (1.4) | (0.2) | 12.2 |
| *9.7* | *1.0* | *0.8* | *0.0* | *0.0* | *3.8* | *(3.3)* | *0.6* | *(1.2)* | *(0.2)* | *10.4* |
| *1.1* | *0.1* | *0.0* | *0.0* | *0.0* | *1.3* | *(0.6)* | *0.0* | *0.0* | *0.0* | *1.8* |
| *0.3* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *(0.1)* | *0.0* | *(0.2)* | *0.0* | *0.1* |

## Note 8 Fair value measurement (continued)

### g) Financial instruments not measured at fair value

The table below reflects the estimated fair values of financial instruments not measured at fair value.

**Financial instruments not measured at fair value**

| | 30.9.17 | | 30.6.17 | | 31.12.16 | |
|---|---|---|---|---|---|---|
| *CHF billion* | Carrying value | Fair value | Carrying value | Fair value | Carrying value | Fair value |
| **Assets** | | | | | | |
| Cash and balances with central banks | 94.6 | 94.6 | 100.1 | 100.1 | 107.8 | 107.8 |
| Due from banks | 15.0 | 15.0 | 14.4 | 14.4 | 13.1 | 13.1 |
| Cash collateral on securities borrowed | 16.6 | 16.6 | 15.1 | 15.1 | 15.1 | 15.1 |
| Reverse repurchase agreements | 87.9 | 87.9 | 75.3 | 75.3 | 66.2 | 66.2 |
| Cash collateral receivables on derivative instruments | 24.9 | 24.9 | 22.7 | 22.7 | 26.7 | 26.7 |
| Loans | 316.7 | 318.9 | 310.4 | 312.5 | 307.0 | 310.4 |
| Financial assets held to maturity | 9.0 | 8.9 | 8.7 | 8.6 | 9.3 | 9.1 |
| Other assets | 23.2 | 23.2 | 21.2 | 21.2 | 18.5 | 18.5 |
| **Liabilities** | | | | | | |
| Due to banks | 10.6 | 10.6 | 11.6 | 11.6 | 10.6 | 10.6 |
| Cash collateral on securities lent | 2.4 | 2.4 | 2.5 | 2.5 | 2.8 | 2.8 |
| Repurchase agreements | 17.5 | 17.5 | 11.3 | 11.3 | 6.6 | 6.6 |
| Cash collateral payables on derivative instruments | 31.9 | 31.9 | 31.5 | 31.5 | 35.5 | 35.5 |
| Due to customers | 439.6 | 441.1 | 438.3 | 439.7 | 450.2 | 450.6 |
| Debt issued | 98.9 | 101.0 | 90.8 | 92.8 | 79.0 | 81.1 |
| Other liabilities | 38.0 | 38.0 | 36.2 | 36.2 | 39.0 | 39.0 |

The fair values included in the table above were calculated for disclosure purposes only. The fair value valuation techniques and assumptions relate only to the fair value of UBS's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimation, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another.

## Note 9 Derivative instruments

### a) Derivative instruments

| *As of 30.9.17, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 45.4 | 1,123 | 39.3 | 1,036 | 10,312 |
| Credit derivative contracts | 3.3 | 109 | 4.2 | 110 | 1 |
| Foreign exchange contracts | 47.9 | 2,364 | 46.6 | 2,211 | 2 |
| Equity / index contracts | 20.8 | 383 | 23.8 | 455 | 83 |
| Commodity contracts | 1.5 | 36 | 1.2 | 33 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.3 | 29 | 0.1 | 21 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 29 | 0.3 | 23 | |
| **Total derivative instruments, based on IFRS netting[4]** | 119.5 | 4,073 | 115.5 | 3,890 | 10,405 |
| Further netting potential not recognized on the balance sheet[5] | (104.4) | | (98.8) | | |
| *of which: netting of recognized financial liabilities / assets* | *(83.4)* | | *(83.4)* | | |
| *of which: netting with collateral received / pledged* | *(21.0)* | | *(15.4)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 15.1 | | 16.7 | | |

| *As of 30.6.17, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 47.8 | 1,065 | 41.4 | 976 | 10,324 |
| Credit derivative contracts | 3.0 | 107 | 4.0 | 116 | 2 |
| Foreign exchange contracts | 52.1 | 2,292 | 51.4 | 2,144 | 8 |
| Equity / index contracts | 17.4 | 302 | 20.8 | 367 | 65 |
| Commodity contracts | 1.2 | 33 | 1.1 | 32 | 8 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.2 | 24 | 0.2 | 29 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.2 | 36 | 0.2 | 15 | |
| **Total derivative instruments, based on IFRS netting[4]** | 121.9 | 3,859 | 119.0 | 3,678 | 10,408 |
| Further netting potential not recognized on the balance sheet[5] | (107.7) | | (98.9) | | |
| *of which: netting of recognized financial liabilities / assets* | *(85.3)* | | *(85.3)* | | |
| *of which: netting with collateral received / pledged* | *(22.4)* | | *(13.5)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 14.2 | | 20.2 | | |

| *As of 31.12.16, CHF billion* | Positive replacement values | Notional values related to positive replacement values[1] | Negative replacement values | Notional values related to negative replacement values[1] | Other notional values[2] |
|---|---|---|---|---|---|
| **Derivative instruments** | | | | | |
| Interest rate contracts | 58.0 | 1,152 | 52.5 | 1,060 | 9,730 |
| Credit derivative contracts | 3.9 | 123 | 4.8 | 140 | |
| Foreign exchange contracts | 76.1 | 2,470 | 72.1 | 2,286 | 6 |
| Equity / index contracts | 18.0 | 269 | 22.1 | 318 | 55 |
| Commodity contracts | 2.3 | 39 | 2.0 | 36 | 9 |
| Unsettled purchases of non-derivative financial instruments[3] | 0.1 | 18 | 0.1 | 10 | |
| Unsettled sales of non-derivative financial instruments[3] | 0.1 | 13 | 0.2 | 11 | |
| **Total derivative instruments, based on IFRS netting[4]** | 158.4 | 4,084 | 153.8 | 3,860 | 9,799 |
| Further netting potential not recognized on the balance sheet[5] | (139.8) | | (129.6) | | |
| *of which: netting of recognized financial liabilities / assets* | *(113.1)* | | *(113.1)* | | |
| *of which: netting with collateral received / pledged* | *(26.7)* | | *(16.6)* | | |
| **Total derivative instruments, after consideration of further netting potential** | 18.6 | | 24.2 | | |

1 In cases where replacement values are presented on a net basis on the balance sheet, the respective notional values of the netted replacement values are still presented on a gross basis. 2 Other notional values relate to derivatives that are cleared through either a central counterparty or an exchange. Many of these derivatives are either legally or economically settled on a daily basis. The residual unsettled fair value of these derivatives and the fair value of other derivatives that are presented on the balance sheet net of the corresponding cash margin, both within Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments, were not material for all periods presented. 3 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as replacement values. 4 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. 5 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to Note 24 in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 9 Derivative instruments (continued)

### b) Cash collateral on derivative instruments

| *CHF billion* | Receivables 30.9.17 | Payables 30.9.17 | Receivables 30.6.17 | Payables 30.6.17 | Receivables 31.12.16 | Payables 31.12.16 |
|---|---|---|---|---|---|---|
| Cash collateral on derivative instruments, based on IFRS netting[1] | 24.9 | 31.9 | 22.7 | 31.5 | 26.7 | 35.5 |
| Further netting potential not recognized on the balance sheet[2] | (13.6) | (17.3) | (11.2) | (18.4) | (15.1) | (22.2) |
| *of which: netting of recognized financial liabilities / assets* | *(12.7)* | *(16.0)* | *(10.7)* | *(17.8)* | *(14.2)* | *(20.8)* |
| *of which: netting with collateral received / pledged* | *(1.0)* | *(1.3)* | *(0.5)* | *(0.7)* | *(1.0)* | *(1.4)* |
| **Cash collateral on derivative instruments, after consideration of further netting potential** | 11.3 | 14.6 | 11.5 | 13.1 | 11.5 | 13.3 |

1 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of UBS or its counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Effective 3 January 2017, interest rate swaps and credit derivatives transacted with the Chicago Mercantile Exchange (CME) were legally converted from the previous collateral model to a settlement model resulting in a derecognition of the associated assets and liabilities, with UBS no longer applying IAS 32 netting principles. Refer to Note 9 in the "Consolidated financial statements" section of the first quarter 2017 report for more information. 2 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to Note 24 in the "Consolidated financial statements" section of the Annual Report 2016 for more information.

## Note 10 Other assets and liabilities

| *CHF million* | 30.9.17 | 30.6.17 | 31.12.16 |
|---|---|---|---|
| **Other assets** | | | |
| Prime brokerage receivables[1] | 14,042 | 12,388 | 9,828 |
| Recruitment loans to financial advisors | 2,597 | 2,643 | 3,087 |
| Other loans to financial advisors | 561 | 557 | 471 |
| Bail deposit[2] | 1,304 | 1,246 | 1,213 |
| Accrued interest income | 607 | 558 | 526 |
| Accrued income – other | 872 | 861 | 822 |
| Prepaid expenses | 899 | 921 | 1,008 |
| Settlement and clearing accounts | 805 | 385 | 516 |
| VAT and other tax receivables | 297 | 303 | 261 |
| Properties and other non-current assets held for sale | 92 | 95 | 111 |
| Assets of disposal group held for sale | 0 | 0 | 5,137 |
| Other | 2,589 | 2,760 | 2,433 |
| **Total other assets** | 24,665 | 22,717 | 25,412 |
| **Other liabilities** | | | |
| Prime brokerage payables[1] | 31,180 | 30,068 | 31,973 |
| Amounts due under unit-linked investment contracts | 9,893 | 10,099 | 9,286 |
| Compensation-related liabilities | 4,551 | 3,983 | 5,256 |
| *of which: accrued expenses* | *2,069* | *1,501* | *2,367* |
| *of which: other deferred compensation plans* | *1,563* | *1,412* | *1,623* |
| *of which: net defined benefit pension and post-employment liabilities* | *919* | *1,070* | *1,266* |
| Third-party interest in consolidated investment funds | 317 | 342 | 751 |
| Settlement and clearing accounts | 1,168 | 699 | 1,011 |
| Current and deferred tax liabilities | 767 | 656 | 911 |
| VAT and other tax payables | 408 | 469 | 487 |
| Deferred income | 181 | 192 | 168 |
| Accrued interest expenses | 1,203 | 1,076 | 1,571 |
| Other accrued expenses | 2,230 | 2,114 | 2,427 |
| Liabilities of disposal group held for sale | 0 | 0 | 5,213 |
| Other | 1,942 | 1,897 | 1,390 |
| **Total other liabilities** | 53,839 | 51,596 | 60,443 |

1 Prime brokerage services include clearance, settlement, custody, financing and portfolio reporting services for corporate clients trading across multiple asset classes. Prime brokerage receivables are mainly comprised of margin lending receivables. Prime brokerage payables are mainly comprised of client securities financing and deposits. 2 Refer to item 1 in Note 13b for more information.

## Note 11 Financial liabilities designated at fair value

| *CHF million* | 30.9.17 | 30.6.17 | 31.12.16 |
|---|---|---|---|
| **Issued debt instruments** | | | |
| Equity-linked[1] | 34,317 | 31,869 | 29,831 |
| Rates-linked | 6,536 | 6,801 | 10,150 |
| Credit-linked | 3,228 | 3,748 | 4,101 |
| Fixed-rate | 3,271 | 3,123 | 2,972 |
| Other | 2,189 | 2,389 | 2,875 |
| **Total issued debt instruments** | 49,543 | 47,930 | 49,930 |
| **Over-the-counter debt instruments** | 6,455 | 5,846 | 4,663 |
| **Other** | 587 | 439 | 425 |
| **Total** | 56,585 | 54,215 | 55,017 |
| *of which: life-to-date own credit (gain) / loss* | *164* | *128* | *(141)* |

1 Includes investment fund unit-linked instruments issued.

## Note 12 Debt issued held at amortized cost

| *CHF million* | 30.9.17 | 30.6.17 | 31.12.16 |
|---|---|---|---|
| Certificates of deposit | 26,594 | 33,162 | 20,207 |
| Commercial paper | 17,561 | 6,530 | 1,653 |
| Other short-term debt | 3,907 | 4,199 | 4,318 |
| **Short-term debt[1]** | 48,062 | 43,891 | 26,178 |
| Senior fixed-rate bonds | 29,107 | 25,527 | 27,008 |
| Covered bonds | 4,052 | 3,896 | 5,836 |
| Subordinated debt | 9,141 | 8,983 | 11,554 |
| *of which: low-trigger loss-absorbing tier 2 capital instruments* | *8,256* | *8,110* | *10,429* |
| *of which: non-Basel III-compliant tier 2 capital instruments* | *886* | *873* | *1,125* |
| Debt issued through the central bond institutions of the Swiss regional or cantonal banks | 8,368 | 8,369 | 8,302 |
| Other long-term debt | 131 | 91 | 121 |
| **Long-term debt[2]** | 50,799 | 46,866 | 52,820 |
| **Total debt issued held at amortized cost[3]** | 98,861 | 90,757 | 78,998 |

1 Debt with an original maturity of less than one year. 2 Debt with an original maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features. 3 Net of bifurcated embedded derivatives with a net positive fair value of CHF 14 million as of 30 September 2017 (30 June 2017: net positive fair value of CHF 20 million; 31 December 2016: net positive fair value of CHF 38 million).

## Note 13 Provisions and contingent liabilities

### a) Provisions

| *CHF million* | Operational risks[1] | Litigation, regulatory and similar matters[2] | Restructuring | Loan commitments and guarantees | Real estate | Employee benefits[5] | Other | Total provisions |
|---|---|---|---|---|---|---|---|---|
| Balance as of 31 December 2016 | 50 | 3,261 | 498 | 54 | 138 | 77 | 91 | 4,169 |
| Balance as of 30 June 2017 | 47 | 2,446 | 364 | 53 | 125 | 57 | 74 | 3,167 |
| Additions from acquired companies | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 |
| Increase in provisions recognized in the income statement | 4 | 310 | 40 | 1 | 0 | 1 | 13 | 369 |
| Release of provisions recognized in the income statement | (1) | (63) | (24) | (6) | 0 | (2) | 0 | (97) |
| Provisions used in conformity with designated purpose | (6) | (313) | (65) | 0 | (2) | 0 | (1) | (387) |
| Capitalized reinstatement costs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Foreign currency translation / unwind of discount | (1) | 30 | 8 | 0 | 1 | 1 | 1 | 39 |
| Balance as of 30 September 2017 | 44 | 2,410 | 323[3] | 48 | 124[4] | 57 | 93 | 3,098 |

1 Comprises provisions for losses resulting from security risks and transaction processing risks. 2 Comprises provisions for losses resulting from legal, liability and compliance risks. 3 Consists of personnel-related restructuring provisions of CHF 62 million as of 30 September 2017 (30 June 2017: CHF 74 million; 31 December 2016: CHF 150 million) and provisions for onerous lease contracts of CHF 261 million as of 30 September 2017 (30 June 2017: CHF 290 million; 31 December 2016: CHF 348 million). 4 Consists of reinstatement costs for leasehold improvements of CHF 84 million as of 30 September 2017 (30 June 2017: CHF 83 million; 31 December 2016: CHF 85 million) and provisions for onerous lease contracts of CHF 41 million as of 30 September 2017 (30 June 2017: CHF 42 million; 31 December 2016: CHF 53 million). 5 Includes provisions for sabbatical and anniversary awards as well as provisions for severance that are not part of restructuring provisions.

Restructuring provisions primarily relate to onerous lease contracts and severance payments. The use of onerous lease provisions is driven by the maturities of the underlying lease contracts. Severance-related provisions are used within a short time period, usually within six months, but potential changes in amount may be triggered when natural staff attrition reduces the number of people affected by a restructuring and therefore the estimated costs.

Information on provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 13b. There are no material contingent liabilities associated with the other classes of provisions.

### b) Litigation, regulatory and similar matters

UBS operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS AG and / or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where UBS may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which UBS believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. UBS makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that UBS has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against UBS, but are nevertheless expected to be, based on UBS's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to such matters could be significant.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

**Note 13 Provisions and contingent liabilities (continued)**

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard, or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in Note 13a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require us to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although we therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, we believe that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. For example, the Non-Prosecution Agreement (NPA) described in item 5 of this Note, which we entered into with the US Department of Justice (DOJ), Criminal Division, Fraud Section in connection with our submissions of benchmark interest rates, including, among others, the British Bankers' Association London Interbank Offered Rate (LIBOR), was terminated by the DOJ based on its determination that we had committed a US crime in relation to foreign exchange matters. As a consequence, UBS AG pleaded guilty to one count of wire fraud for conduct in the LIBOR matter, paid a USD 203 million fine and is subject to a three-year term of probation. A guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for UBS. Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate our participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining our capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital management" section of the UBS Group third quarter 2017 report.

**Provisions for litigation, regulatory and similar matters by business division and Corporate Center unit[1]**

| *CHF million* | Wealth Manage-ment | Wealth Management Americas | Personal & Corporate Banking | Asset Manage-ment | Investment Bank | CC – Services | CC – Group ALM | CC – Non-core and Legacy Portfolio | UBS |
|---|---|---|---|---|---|---|---|---|---|
| **Balance as of 31 December 2016** | 292 | 425 | 78 | 5 | 616 | 259 | 0 | 1,585 | 3,261 |
| **Balance as of 30 June 2017** | 249 | 361 | 77 | 5 | 391 | 253 | 0 | 1,110 | 2,446 |
| Increase in provisions recognized in the income statement | 20 | 10 | 0 | 0 | 2 | 248 | 0 | 31 | 310 |
| Release of provisions recognized in the income statement | 0 | (3) | 0 | (5)[2] | (47) | (1) | 0 | (7) | (63) |
| Provisions used in conformity with designated purpose | (1) | (46) | 0 | 0 | (5) | (259) | 0 | (1) | (313) |
| Foreign currency translation / unwind of discount | 11 | 3 | 1 | 0 | 3 | 1 | 0 | 11 | 30 |
| **Balance as of 30 September 2017** | 279 | 325 | 78 | 0 | 344 | 241 | 0 | 1,144 | 2,410 |

1 Provisions, if any, for the matters described in this Note are recorded in Wealth Management (item 3), Wealth Management Americas (item 4), the Investment Bank (item 8), Corporate Center – Services (item 7) and Corporate Center – Non-core and Legacy Portfolio (item 2). Provisions, if any, for the matters described in items 1 and 6 of this Note are allocated between Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in this Note in item 5 are allocated between the Investment Bank, Corporate Center – Services and Corporate Center – Non-core and Legacy Portfolio.
2 In the third quarter of 2017, a release of CHF 5 million was recognized in Provisions for litigation, regulatory and similar matters, with a corresponding increase in Other provisions.

**Note 13 Provisions and contingent liabilities (continued)**

### 1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions. It is possible that implementation of automatic tax information exchange and other measures relating to cross-border provision of financial services could give rise to further inquiries in the future. UBS has received disclosure orders from the Swiss Federal Tax Administration (FTA) to transfer information based on requests for international administrative assistance in tax matters. The requests concern a number of UBS account numbers pertaining to current and former clients and are based on data from 2006 and 2008. UBS has taken steps to inform affected clients about the administrative assistance proceedings and their procedural rights, including the right to appeal. The requests are based on data received from the German authorities, who seized certain data related to UBS clients booked in Switzerland during their investigations and have apparently shared this data with other European countries. UBS expects additional countries to file similar requests.

The Swiss Federal Administrative Court ruled in 2016 that in the administrative assistance proceedings related to a French bulk request, UBS has the right to appeal all final FTA client data disclosure orders.

Since 2013, UBS (France) S.A. and UBS AG and certain former employees have been under investigation in France for alleged complicity in having illicitly solicited clients on French territory and regarding the laundering of proceeds of tax fraud and of banking and financial solicitation by unauthorized persons. In connection with this investigation, the investigating judges ordered UBS AG to provide bail ("*caution*") of EUR 1.1 billion and UBS (France) S.A. to post bail of EUR 40 million, which was reduced on appeal to EUR 10 million.

In February 2016, the investigating judges notified UBS AG and UBS (France) S.A. that they have closed their investigation. In July 2016, UBS AG and UBS (France) S.A. received the National Financial Prosecutor's recommendation ("*réquisitoire*"). In March 2017, the investigating judges issued the trial order ("*ordonnance de renvoi*") that charges UBS AG and UBS (France) S.A., as well as various former employees, with illicit solicitation of clients on French territory and with participation in the laundering of the proceeds of tax fraud, and which transfers the case to court. The trial schedule has not yet been announced.

In 2016, UBS was notified by the Belgian investigating judge that it is under formal investigation ("*inculpé*") regarding the laundering of proceeds of tax fraud and of banking, financial solicitation by unauthorized persons and serious tax fraud.

In 2015, UBS received inquiries from the US Attorney's Office for the Eastern District of New York and from the US Securities and Exchange Commission (SEC), which are investigating potential sales to US persons of bearer bonds and other unregistered securities in possible violation of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and the registration requirements of the US securities laws. UBS is cooperating with the authorities in these investigations.

UBS has, and reportedly numerous other financial institutions have, received inquiries from authorities concerning accounts relating to the Fédération Internationale de Football Association (FIFA) and other constituent soccer associations and related persons and entities. UBS is cooperating with authorities in these inquiries.

Our balance sheet at 30 September 2017 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages. A subsidiary of UBS, UBS Real Estate Securities Inc. (UBS RESI), acquired pools of residential mortgage loans from originators and (through an affiliate) deposited them into securitization trusts. In this manner, from 2004 through 2007, UBS RESI sponsored approximately USD 80 billion in RMBS, based on the original principal balances of the securities issued.

UBS RESI also sold pools of loans acquired from originators to third-party purchasers. These whole loan sales during the period 2004 through 2007 totaled approximately USD 19 billion in original principal balance.

UBS was not a significant originator of US residential loans. A branch of UBS originated approximately USD 1.5 billion in US residential mortgage loans during the period in which it was active from 2006 to 2008, and securitized less than half of these loans.

*Lawsuits related to contractual representations and warranties concerning mortgages and RMBS:* When UBS acted as an RMBS sponsor or mortgage seller, it generally made certain representations relating to the characteristics of the underlying loans. In the event of a material breach of these representations, UBS was in certain circumstances contractually obligated to repurchase the loans to which the representations related or to indemnify certain parties against losses. In 2012, certain RMBS trusts filed an action (Trustee Suit) in the US District Court for the Southern District of New York (SDNY) seeking to enforce UBS RESI's obligation to repurchase loans in the collateral pools for three RMBS securitizations with an original principal balance of approximately USD 2 billion. Approximately 9,000 loans were at issue in a bench trial in the SDNY in 2016, following which the court issued an order ruling on numerous legal and factual issues and applying those rulings to 20 exemplar loans. The court further ordered that a lead master be appointed to apply the court's rulings to the loans that remain at issue following the trial. In October 2017, UBS and certain holders of the RMBS in the Trustee Suit entered into an agreement under which UBS has agreed to pay an aggregate of USD 543 million into the relevant RMBS trusts, plus certain attorneys' fees. A portion of these settlement costs will be borne by other parties that indemnified UBS. The agreement is subject to the trustee for the RMBS trusts becoming a party thereto. The security holders who are parties to the settlement agreement have requested that the trustee conduct a vote of security holders to approve or reject the settlement, and each of these security holders has agreed to vote its securities in favor of the settlement. Giving effect to this settlement, UBS considers claims relating to substantially all loan repurchase demands to be resolved, and believes that new demands to repurchase US residential mortgage loans are time-barred under a decision rendered by the New York Court of Appeals.

*Mortgage-related regulatory matters:* In 2014, UBS received a subpoena from the US Attorney's Office for the Eastern District of New York issued pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), which seeks documents and information related to UBS's RMBS business from 2005 through 2007. In 2015, the Eastern District of New York identified a number of transactions that are the focus of their inquiry, and has subsequently provided a revised list of transactions. UBS has provided and continues to provide information. UBS continues to respond to the FIRREA subpoena and to subpoenas from the New York State Attorney General and other state attorneys general relating to its RMBS business. In addition, UBS has also been responding to inquiries from both the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) (who is working in conjunction with the US Attorney's Office for Connecticut and the DOJ) and the SEC relating to trading practices in connection with purchases and sales of mortgage-backed securities in the secondary market from 2009 through 2014. UBS is cooperating with the authorities in these matters.

Our balance sheet at 30 September 2017 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier (CSSF). Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds now face severe losses, and the Luxembourg funds are in liquidation. The last reported net asset value of the two Luxembourg funds before revelation of the Madoff scheme was approximately USD 1.7 billion in the aggregate although that figure likely includes fictitious profit reported by BMIS. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members. UBS Europe SE, Luxembourg branch, and certain other UBS subsidiaries are responding to inquiries by Luxembourg investigating authorities, without, however, being named as parties in those investigations.

**Note 13 Provisions and contingent liabilities (continued)**

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims on behalf of the funds against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees. The amounts claimed are approximately EUR 890 million and EUR 305 million, respectively. The liquidators have filed supplementary claims for amounts that the funds may possibly be held liable to pay the trustee for the liquidation of BMIS (BMIS Trustee). These amounts claimed by the liquidator are approximately EUR 564 million and EUR 370 million, respectively.

In addition, a large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff scheme. The majority of these cases are pending in Luxembourg, where appeals were filed by the claimants against the 2010 decisions of the court in which the claims in a number of test cases were held to be inadmissible. The Luxembourg Court of Appeal has found in favor of UBS and dismissed all of these test case appeals, confirming that the claims are inadmissible. The Luxembourg Supreme Court has also dismissed a further appeal brought by the claimant in one of the test cases.

In the US, the BMIS Trustee filed claims in 2010 against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2 billion. The SDNY dismissed all of the BMIS Trustee's claims other than claims for recovery of fraudulent conveyances and preference payments that were allegedly transferred to UBS on the ground that the BMIS Trustee lacks standing to bring such claims. The SDNY decision was affirmed on appeal and is now final. In 2016, the bankruptcy court issued an opinion dismissing the remaining claims for recovery of transfers of fraudulent conveyances and preference payments on the ground that the US Bankruptcy Code does not apply to transfers that occurred outside the US. The BMIS Trustee has appealed that ruling. In 2014, several claims, including a purported class action, were filed in the US by BMIS customers against UBS entities, asserting claims similar to the ones made by the BMIS Trustee, seeking unspecified damages. One claim was voluntarily withdrawn by the plaintiff. In 2015, the SDNY dismissed the two remaining claims on the basis that the New York courts did not have jurisdiction to hear the claims against the UBS entities. The plaintiff in one of those claims has appealed the dismissal.

In Germany, certain clients of UBS are exposed to Madoff-managed positions through third-party funds and funds administered by UBS entities in Germany. A small number of claims have been filed with respect to such funds. In 2015, a court of appeal ordered UBS to pay EUR 49 million, plus interest of approximately EUR 15.3 million.

### 4. Puerto Rico

Declines since 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) have led to multiple regulatory inquiries, as well as customer complaints and arbitrations with aggregate claimed damages of USD 2.2 billion, of which claims with aggregate claimed damages of USD 1.2 billion have been resolved through settlements, arbitration or withdrawal of the claim. The claims are filed by clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and / or who used their UBS account assets as collateral for UBS non-purpose loans; customer complaint and arbitration allegations include fraud, misrepresentation and unsuitability of the funds and of the loans. A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2015, defendants' motion to dismiss was denied. Defendants' requests for permission to appeal that ruling were denied by the Puerto Rico Court of Appeals and the Puerto Rico Supreme Court. In 2014, a federal class action complaint also was filed against various UBS entities, certain members of UBS PR senior management and the co-manager of certain of the funds, seeking damages for investor losses in the funds during the period from May 2008 through May 2014. In 2016, defendants' motion to dismiss was granted in part and denied in part. In 2015, a class action was filed in Puerto Rico state court against UBS PR seeking equitable relief in the form of a stay of any effort by UBS PR to collect on non-purpose loans it acquired from UBS Bank USA in December 2013 based on plaintiffs' allegation that the loans are not valid. The trial court denied defendant's motion to dismiss the action based on a forum selection clause in the loan agreements. The Puerto Rico Supreme Court reversed that decision and remanded the case back to the trial court for reconsideration.

In 2014, UBS reached a settlement with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico (OCFI) in connection with OCFI's examination of UBS's operations from January 2006 through September 2013, pursuant to which UBS is paying up to an aggregate of USD 7.7 million in investor education contributions and restitution.

In 2015, the SEC and the Financial Industry Regulatory Authority (FINRA) announced settlements with UBS PR of their separate investigations stemming from the 2013 market events. Without admitting or denying the findings in either matter, UBS PR agreed in the SEC settlement to pay USD 15 million and USD 18.5 million in the FINRA matter. We also understand that the DOJ is conducting a criminal inquiry into the impermissible reinvestment of non-purpose loan proceeds. We are cooperating with the authorities in this inquiry.

**Note 13 Provisions and contingent liabilities (continued)**

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of USD 3 billion of bonds by the System in 2008 and sought damages of over USD 800 million. In December 2016, the court granted the System's request to join the action as a plaintiff, but ordered that plaintiffs must file an amended complaint. In March 2017, the court denied defendants' motion to dismiss the amended complaint.

Also, in 2013, an SEC Administrative Law Judge dismissed a case brought by the SEC against two UBS executives, finding no violations. The charges had stemmed from the SEC's investigation of UBS's sale of closed-end funds in 2008 and 2009, which UBS settled in 2012. Beginning in 2012, two federal class action complaints, which were subsequently consolidated, were filed against various UBS entities, certain of the funds and certain members of UBS PR senior management, seeking damages for investor losses in the funds during the period from January 2008 through May 2012 based on allegations similar to those in the SEC action. In 2016, the court denied plaintiffs' motion for class certification. In March 2017, the US Court of Appeals for the First Circuit denied plaintiffs' petition seeking permission to bring an interlocutory appeal challenging the denial of their motion for class certification.

In 2015, certain agencies and public corporations of the Commonwealth of Puerto Rico (Commonwealth) defaulted on certain interest payments, in 2016, the Commonwealth defaulted on payments on its general obligation debt (GO Bonds), and in 2017 the Commonwealth defaulted on payments on its debt backed by the Commonwealth's Sales and Use Tax (COFINA Bonds) as well as on bonds issued by the Commonwealth's Employee Retirement System (ERS Bonds). The funds hold significant amounts of both COFINA and ERS Bonds and the defaults on interest payments are expected to adversely affect dividends from the funds. Executive orders of the Governor that have diverted funds to pay for essential services instead of debt payments and stayed any action to enforce creditors' rights on the Puerto Rico bonds continue to be in effect. In 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board is authorized to impose, and has imposed, a stay on exercise of creditors' rights. In May and June 2017, the oversight board placed the GO, COFINA and ERS Bonds, among others, into a bankruptcy-like proceeding under the supervision of a Federal District Judge as authorized by the oversight board's enabling statute. These events, further defaults, any further legislative action to create a legal means of restructuring Commonwealth obligations or to impose additional oversight on the Commonwealth's finances, or any restructuring of the Commonwealth's obligations may increase the number of claims against UBS concerning Puerto Rico securities, as well as potential damages sought.

Our balance sheet at 30 September 2017 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

### 5. Foreign exchange, LIBOR and benchmark rates, and other trading practices

*Foreign exchange-related regulatory matters:* Following an initial media report in 2013 of widespread irregularities in the foreign exchange markets, UBS immediately commenced an internal review of its foreign exchange business, which includes our precious metals and related structured products businesses. Numerous authorities commenced investigations concerning possible manipulation of foreign exchange markets and precious metals prices. In 2014 and 2015, UBS reached settlements with the UK Financial Conduct Authority (FCA) and the US Commodity Futures Trading Commission (CFTC) in connection with their foreign exchange investigations, FINMA issued an order concluding its formal proceedings relating to UBS's foreign exchange and precious metals businesses, and the Board of Governors of the Federal Reserve System (Federal Reserve Board) and the Connecticut Department of Banking issued a Cease and Desist Order and assessed monetary penalties to UBS AG. In addition, the DOJ's Criminal Division (Criminal Division) terminated the December 2012 Non-Prosecution Agreement (NPA) with UBS AG related to UBS's submissions of benchmark interest rates and UBS AG pleaded guilty to one count of wire fraud, paid a fine and is subject to probation through January 2020. UBS has ongoing obligations to cooperate with these authorities and to undertake certain remediation. UBS has also been granted conditional immunity by the Antitrust Division of the DOJ (Antitrust Division) and by authorities in other jurisdictions in connection with potential competition law violations relating to foreign exchange and precious metals businesses. Refer to Note 20b in the "Consolidated financial statements" section of the Annual Report 2016 for more information on regulatory actions related to foreign exchange and precious metals and grants of conditional immunity or leniency. Investigations relating to foreign exchange and precious metals matters by numerous authorities, including the CFTC, remain ongoing notwithstanding these resolutions.

**Note 13 Provisions and contingent liabilities (continued)**

*Foreign exchange-related civil litigation:* Putative class actions have been filed since 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. They allege collusion by the defendants and assert claims under the antitrust laws and for unjust enrichment. In 2015, additional putative class actions were filed in federal court in New York against UBS and other banks on behalf of a putative class of persons who entered into or held any foreign exchange futures contracts and options on foreign exchange futures contracts since January 2003. The complaints assert claims under the Commodity Exchange Act (CEA) and the US antitrust laws. In 2015, a consolidated complaint was filed on behalf of both putative classes of persons covered by the US federal court class actions described above. UBS has entered into a settlement agreement that would resolve all of these US federal court class actions. The agreement, which has been preliminarily approved by the court and is subject to final court approval, requires, among other things, that UBS pay an aggregate of USD 141 million and provide cooperation to the settlement classes.

A putative class action has been filed in federal court in New York against UBS and other banks on behalf of participants, beneficiaries and named fiduciaries of plans qualified under the Employee Retirement Income Security Act of 1974 (ERISA) for whom a defendant bank provided foreign currency exchange transactional services, exercised discretionary authority or discretionary control over management of such ERISA plan, or authorized or permitted the execution of any foreign currency exchange transactional services involving such plan's assets. The complaint asserts claims under ERISA. The parties filed a stipulation to dismiss the case with prejudice. The plaintiffs have appealed the dismissal. The appeals court heard oral argument in June 2017.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of a putative class of persons and businesses in the US who directly purchased foreign currency from the defendants and their co-conspirators for their own end use. That action has been transferred to federal court in New York. In March 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint. The plaintiffs filed an amended complaint in August 2017.

In 2016, a putative class action was filed in federal court in New York against UBS and numerous other banks on behalf of a putative class of persons and entities who had indirectly purchased FX instruments from a defendant or co-conspirator in the US. The complaint asserts claims under federal and state antitrust laws. In response to defendants' motion to dismiss, plaintiffs agreed to dismiss their complaint. In April and June 2017, two new putative class actions were filed in federal court in New York against UBS and numerous other banks on behalf of different proposed classes of indirect purchasers of currency, and a consolidated complaint was filed in June 2017.

In 2015, UBS was added to putative class actions pending against other banks in federal court in New York and other jurisdictions on behalf of putative classes of persons who had bought or sold physical precious metals and various precious metal products and derivatives. The complaints in these lawsuits assert claims under the antitrust laws and the CEA, and other claims. In October 2016, the court in New York granted UBS's motions to dismiss the putative class actions relating to gold and silver. Plaintiffs in those cases sought to amend their complaints to add new allegations about UBS, which the court granted. The plaintiffs filed their amended complaints in June 2017. In March 2017, the court in New York granted UBS's motion to dismiss the platinum and palladium action. In May 2017, plaintiffs in the platinum and palladium action filed an amended complaint that did not allege claims against UBS.

*LIBOR and other benchmark-related regulatory matters:* Numerous government agencies, including the SEC, the CFTC, the DOJ, the FCA, the UK Serious Fraud Office (SFO), the Monetary Authority of Singapore (MAS), the Hong Kong Monetary Authority (HKMA), FINMA, various state attorneys general in the US and competition authorities in various jurisdictions have conducted or are continuing to conduct investigations regarding potential improper attempts by UBS, among others, to manipulate LIBOR and other benchmark rates at certain times. In 2012, UBS reached settlements relating to benchmark interest rates with the FSA, the CFTC and the Criminal Division of the DOJ, and FINMA issued an order in its proceedings with respect to UBS relating to benchmark interest rates. In addition, UBS entered into settlements with the European Commission (EC) and with the Swiss Competition Commission (WEKO) regarding its investigation of bid-ask spreads in connection with Swiss franc interest rate derivatives. UBS has ongoing obligations to cooperate with the authorities with whom we have reached resolutions and to undertake certain remediation with respect to benchmark interest rate submissions. UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO, in connection with potential antitrust or competition law violations related to certain rates. However, UBS has not reached a final settlement with WEKO as the Secretariat of WEKO has asserted that UBS does not qualify for full immunity. Refer to Note 20b in the "Consolidated financial statements" section of the Annual Report 2016 for more information on regulatory actions relating to benchmark rates and grants of conditional immunity or leniency. Investigations by certain governmental authorities remain ongoing notwithstanding these resolutions.

**Note 13 Provisions and contingent liabilities (continued)**

*LIBOR and other benchmark-related civil litigation:* A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. All of the complaints allege manipulation, through various means, of various benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, USD and SGD SIBOR and SOR, Australian BBSW and USD ISDAFIX, and seek unspecified compensatory and other damages under varying legal theories.

In 2013, the US district court in the USD LIBOR action dismissed the federal antitrust and racketeering claims of certain USD LIBOR plaintiffs and a portion of their claims brought under the CEA and state common law. Certain plaintiffs appealed the decision to the Second Circuit, which, in 2016, vacated the district court's ruling finding no antitrust injury and remanded the case back to the district court for a further determination on whether plaintiffs have antitrust standing. In December 2016, the district court again dismissed plaintiffs' antitrust claims, this time for lack of personal jurisdiction over UBS and other foreign banks. In 2014, the court in one of the Euroyen TIBOR lawsuits dismissed certain of the plaintiff's claims, including federal antitrust claims. In 2015, the same court dismissed plaintiff's federal racketeering claims and affirmed its previous dismissal of plaintiff's antitrust claims. In 2017, the court also dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds, as did the court in the CHF LIBOR action. Also in 2017, the courts in the EURIBOR and the SIBOR and SOR lawsuits dismissed the cases as to UBS and certain other foreign defendants for lack of personal jurisdiction. UBS and other defendants in other lawsuits including those related to GBP LIBOR and Australian BBSW have filed motions to dismiss. In 2016, UBS entered into an agreement with representatives of a class of bondholders to settle their USD LIBOR class action. The agreement has received preliminary court approval and remains subject to final approval. Since 2014, putative class actions have been filed in federal court in New York and New Jersey against UBS and other financial institutions, among others, on behalf of parties who entered into interest rate derivative transactions linked to ISDAFIX. The complaints, which have since been consolidated into an amended complaint, allege that the defendants conspired to manipulate ISDAFIX rates from January 2006 through June 2013, in violation of US antitrust laws and certain state laws, and seek unspecified compensatory damages, including treble damages. On 12 July 2017, the court overseeing the ISDAFIX class action preliminarily approved a settlement agreement between UBS AG and the plaintiffs, whereby UBS AG agreed to pay USD 14 million to settle the case in its entirety.

*Government bonds:* Putative class actions have been filed in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. The complaints generally allege that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction. They assert claims under the antitrust laws and the CEA and for unjust enrichment. The cases have been consolidated in the SDNY. Following filing of these complaints, UBS and reportedly other banks are responding to investigations and requests for information from various authorities regarding US Treasury securities and other government bond trading practices. As a result of its review to date, UBS has taken appropriate action.

With respect to additional matters and jurisdictions not encompassed by the settlements and order referred to above, our balance sheet at 30 September 2017 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver.

FINMA has issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and may continue to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among other things, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

## Note 13 Provisions and contingent liabilities (continued)

Our balance sheet at 30 September 2017 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

### 7. Banco UBS Pactual tax indemnity

Pursuant to the 2009 sale of Banco UBS Pactual S.A. (Pactual) by UBS to BTG Investments, LP (BTG), BTG has submitted contractual indemnification claims. The claims pertain principally to several tax assessments issued by the Brazilian tax authorities against Pactual relating to the period from December 2006 through March 2009, when UBS owned Pactual. These assessments are being challenged in administrative and judicial proceedings. In August 2017, UBS and BTG agreed to resolve the largest indemnification claim (UBS's portion of which was approximately BRL 2 billion) relating to a tax assessment that had disallowed goodwill amortization deductions. In connection with this resolution, UBS paid CHF 245 million to BTG, which then submitted the underlying tax assessment for resolution in a Brazilian tax amnesty program. Of the remaining BRL 732 million in indemnification claims, administrative courts have ruled in favor of BTG in respect of BRL 455 million of assessments related to profit-sharing plans, with the remainder of the assessments pending at various levels of the administrative or judicial court system.

### 8. Investigation of UBS's role in initial public offerings in Hong Kong

The Hong Kong Securities and Futures Commission (SFC) has been conducting investigations into UBS's role as a sponsor of certain initial public offerings listed on the Hong Kong Stock Exchange. In 2016, the SFC informed UBS that it intends to commence action against UBS and certain UBS employees with respect to sponsorship work in those offerings, which could result in financial ramifications for UBS, including fines and obligations to pay investor compensation, and suspension of UBS's ability to provide corporate finance advisory services in Hong Kong for a period of time.

In January 2017, a writ was filed by the SFC with Hong Kong's High Court in which UBS was named as one of six defendants from whom the SFC was seeking investor compensation in an unspecified amount for losses incurred by certain shareholders of China Forestry Holdings Company Limited, for whom UBS acted as a sponsor in connection with their 2009 listing application. In August 2017, the SFC filed an amended writ that did not name UBS and some of the other defendants, thereby discontinuing this action against UBS.

## Note 14 Guarantees, commitments and forward starting transactions

The table below shows the maximum irrevocable amount of guarantees, commitments and forward starting transactions.

| | 30.9.17 | | | 30.6.17 | | | 31.12.16 | | |
|---|---|---|---|---|---|---|---|---|---|
| *CHF million* | Gross | Sub-participations | Net | Gross | Sub-participations | Net | Gross | Sub-participations | Net |
| **Guarantees** | | | | | | | | | |
| Credit guarantees and similar instruments | 6,812 | (442) | 6,371 | 6,411 | (390) | 6,021 | 6,447 | (424) | 6,023 |
| Performance guarantees and similar instruments | 3,309 | (815) | 2,494 | 3,229 | (654) | 2,575 | 3,190 | (696) | 2,494 |
| Documentary credits | 6,578 | (1,652) | 4,926 | 6,198 | (1,611) | 4,587 | 7,074 | (1,761) | 5,313 |
| **Total guarantees** | 16,699 | (2,908) | 13,791 | 15,838 | (2,656) | 13,182 | 16,711 | (2,881) | 13,830 |
| **Loan commitments** | 39,658 | (1,103) | 38,555 | 42,222 | (1,349) | 40,874 | 54,430 | (1,513) | 52,917 |
| **Forward starting transactions**[1] | | | | | | | | | |
| Reverse repurchase agreements | 21,814 | | | 25,218 | | | 10,178 | | |
| Securities borrowing agreements | 88 | | | 183 | | | 36 | | |
| Repurchase agreements | 16,596 | | | 20,890 | | | 5,984 | | |

1 Cash to be paid in the future by either UBS or the counterparty.

## Note 15 Changes in organization

### Restructuring expenses

Restructuring expenses arise from programs that materially change either the scope of business that UBS AG engages in or the manner in which such business is conducted. Restructuring expenses are necessary to effect such programs and include items such as severance and other personnel-related expenses, duplicate headcount costs, impairment and accelerated depreciation of assets, contract termination costs, consulting fees, and related infrastructure and system costs. These costs are presented in the income statement according to the underlying nature of the expense.

**Net restructuring expenses by business division and Corporate Center unit**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| Wealth Management | 114 | 109 | 139 | 311 | 304 |
| Wealth Management Americas | 24 | 25 | 38 | 71 | 109 |
| Personal & Corporate Banking | 25 | 23 | 41 | 67 | 95 |
| Asset Management | 26 | 23 | 34 | 70 | 88 |
| Investment Bank | 83 | 75 | 181 | 236 | 461 |
| Corporate Center | 18 | 8 | 4 | 38 | 16 |
| *of which: Services* | *15* | *4* | *(2)* | *30* | *3* |
| *of which: Group ALM* | *1* | *1* | *0* | *3* | *0* |
| *of which: Non-core and Legacy Portfolio* | *1* | *2* | *7* | *6* | *13* |
| Total net restructuring expenses | 290 | 263 | 436 | 793 | 1,072 |
| *of which: personnel expenses* | *104* | *57* | *249* | *273* | *562* |
| *of which: general and administrative expenses* | *185* | *206* | *187* | *514* | *510* |
| *of which: depreciation and impairment of property, equipment and software* | *2* | *0* | *1* | *6* | *1* |
| *of which: amortization and impairment of intangible assets* | *0* | *0* | *0* | *0* | *0* |

**Net restructuring expenses by personnel expense category**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| Salaries and variable compensation | 84 | 49 | 247 | 233 | 557 |
| Contractors | 14 | 9 | 13 | 37 | 41 |
| Social security | 1 | 2 | 3 | 5 | 6 |
| Pension and other post-employment benefit plans | 0 | (4) | (18) | (8) | (52) |
| Other personnel expenses | 4 | 1 | 4 | 6 | 10 |
| Total net restructuring expenses: personnel expenses | 104 | 57 | 249 | 273 | 562 |

**Net restructuring expenses by general and administrative expense category**

| | For the quarter ended | | | Year-to-date | |
|---|---|---|---|---|---|
| *CHF million* | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| Occupancy | 17 | 22 | 27 | 57 | 97 |
| Rent and maintenance of IT and other equipment | 8 | (6) | 28 | 30 | 72 |
| Administration | 98 | 106 | 7 | 209 | 17 |
| Travel and entertainment | 3 | 2 | 3 | 6 | 9 |
| Professional fees | 40 | 34 | 39 | 101 | 109 |
| Outsourcing of IT and other services | 28 | 49 | 80 | 120 | 228 |
| Other[1] | (9) | (1) | 3 | (10) | (22) |
| Total net restructuring expenses: general and administrative expenses | 185 | 206 | 187 | 514 | 510 |

1 Mainly comprised of onerous real estate lease contracts.

## Note 15 Changes in organization (continued)

### Transfer of shared services functions to UBS Business Solutions AG

In the second quarter of 2017, UBS transferred shared services functions in Switzerland from UBS AG to UBS Business Solutions AG, UBS's Group service company and a wholly owned subsidiary of UBS Group AG. The transfer was recorded retrospectively as of 1 April 2017 and resulted in the derecognition of CHF 706 million of assets and CHF 259 million of liabilities, the granting of a loan of CHF 140 million and a reduction in share premium within equity attributable to shareholders of CHF 307 million for UBS AG consolidated.

Following the transfer, UBS Business Solutions AG charges other legal entities within the Group for services provided, including a markup on costs incurred. For UBS AG, this has resulted in a decrease in direct costs recognized as personnel and depreciation expenses, which was more than offset by an increase in general and administrative expenses related to the service charge from UBS Business Solutions AG. In addition, entities within the UBS AG consolidated scope now charge UBS Business Solutions AG for certain services provided to Swiss shared services functions, resulting in an increase in other income for UBS AG.

## Note 16 Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of UBS AG's foreign operations into Swiss francs.

| | Spot rate | | | | Average rate[1] | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | As of | | | | For the quarter ended | | | Year-to-date | |
| | 30.9.17 | 30.6.17 | 31.12.16 | 30.9.16 | 30.9.17 | 30.6.17 | 30.9.16 | 30.9.17 | 30.9.16 |
| 1 USD | 0.97 | 0.96 | 1.02 | 0.97 | 0.97 | 0.97 | 0.97 | 0.98 | 0.98 |
| 1 EUR | 1.14 | 1.10 | 1.07 | 1.09 | 1.14 | 1.09 | 1.09 | 1.10 | 1.09 |
| 1 GBP | 1.30 | 1.25 | 1.26 | 1.26 | 1.27 | 1.26 | 1.27 | 1.26 | 1.35 |
| 100 JPY | 0.86 | 0.85 | 0.87 | 0.96 | 0.87 | 0.87 | 0.95 | 0.88 | 0.91 |

1 Monthly income statement items of foreign operations with a functional currency other than Swiss franc are translated with month-end rates into Swiss francs. Disclosed average rates for a quarter represent an average of three month-end rates, weighted according to the income and expense volumes of all foreign operations with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for UBS AG.

## Note 17 Events after the reporting period

### Sale of subsidiaries and businesses

On 1 October 2017, UBS AG completed the sale of Asset Management's fund administration servicing units in Luxembourg and Switzerland to Northern Trust, resulting in a pre-tax gain on sale of approximately CHF 140 million. This gain will be recognized in the income statement within Asset Management in the fourth quarter of 2017.