BASE LISTING DOCUMENT DATED 5 APRIL 2016

If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

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Non-collateralised Structured Products Base Listing Document relating to Structured Products to be issued by

UBS

UBS AG

(incorporated with limited liability in Switzerland)
acting through its London Branch

Sponsor

UBS Securities Asia Limited

This document, for which we accept full responsibility, includes particulars given in compliance with the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "**Listing Rules**") for the purpose of giving information with regard to us and our warrants ("**Warrants**"), callable bull/bear contracts ("**CBBCs**") and other structured products (together, "**Structured Products**") to be listed on the Stock Exchange from time to time. This document may be updated and/or amended from time to time by way of addenda.

We, having made all reasonable enquiries, confirm that to the best of our knowledge and belief the information contained in this document is accurate and complete in all material respects and not misleading or deceptive, and there are no other matters the omission of which would make any statement herein or this document misleading.

The Structured Products involve derivatives. Do not invest in them unless you fully understand and are willing to assume the risks associated with them.

Investors are warned that the price of the Structured Products may fall in value as rapidly as it may rise and holders may sustain a total loss of their investment. Prospective purchasers should therefore ensure that they understand the nature of the Structured Products and carefully study the risk factors set out in this document and, where necessary, seek professional advice, before they invest in the Structured Products.

The Structured Products constitute our general unsecured contractual obligations and of no other person and will rank equally among themselves and with all our other unsecured obligations (save for those obligations preferred by law) upon liquidation. If you purchase the Structured Products, you are relying upon our creditworthiness, and have no rights under the Structured Products against (a) the company which has issued the underlying securities; (b) the trustee or the manager of the underlying unit trust; or (c) the index compiler of any underlying index. If we become insolvent or default on our obligations under the Structured Products, you may not be able to recover all or even part of the amount due under the Structured Products (if any).

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What is this document about?

This document is for information purposes only and does not constitute an offer, an advertisement or invitation to the public to subscribe for or to acquire any Structured Products.

What documents should you read before investing in the Structured Products?

A supplemental listing document will be issued on the issue date of each series of Structured Products, which will include detailed commercial terms of the relevant series. You must read this document (including any addendum to this document to be issued from time to time) together with such supplemental listing document (including any addendum to such supplemental listing document to be issued from time to time) (together, the "**Listing Documents**") before investing in any Structured Product. You should carefully study the risk factors set out in the Listing Documents. You should also consider your financial position and investment objectives before deciding to invest in the Structured Products. We cannot give you investment advice. You must decide whether the Structured Products meet your investment needs before investing in the Structured Products.

Is there any guarantee or collateral for the Structured Products?

No. Our obligations under the Structured Products are neither guaranteed by any third party, nor collateralised with any of our assets or other collaterals. When you purchase our Structured Products, you are relying on our creditworthiness only, and of no other person. If we become insolvent or default on our obligations under the Structured Products, you can only claim as our unsecured creditor. In such event, you may not be able to recover all or even part of the amount due under the Structured Products (if any).

What are our credit ratings?

Our long term debt ratings are:

Rating agency	*Rating as of the date immediately preceding the date of this document*
Moody's Investors Service Ltd ("**Moody's**")	A1 (stable outlook)
Standard & Poor's Credit Market Services Europe Limited ("**S&P**")	A positive (outlook)

Our credit ratings disclosed above are only an assessment by the rating agencies of our overall capacity to pay our long term debts.

A1 is among the top three major credit rating categories and is the fifth highest investment-grade ranking of the ten investment-grade ratings (including 1, 2 and 3 sub-grades) assigned by Moody's.

A is among the top three major credit rating categories and is the sixth highest investment-grade ranking of the ten investment-grade ratings (including + or - sub-grades) assigned by S&P.

Please refer to the brief guide in Appendix 6 to this Base Listing Document for more information about credit ratings.

Rating agencies usually receive a fee from the issuers that they rate.

When evaluating our creditworthiness, you should not solely rely on our credit ratings because:

- a credit rating is not a recommendation to buy, sell or hold the Structured Products;
- ratings of companies may involve difficult-to-quantify factors such as market competition, the success or failure of new products and markets and managerial competence;
- a high credit rating is not necessarily indicative of low risk. Our credit ratings as of the date immediately preceding the date of this document are for reference only. Any downgrading of our credit ratings could result in a reduction in the value of the Structured Products;
- a credit rating is not an indication of the liquidity or volatility of the Structured Products; and
- a credit rating may be downgraded if our credit quality declines.

The Structured Products are not rated.

Our credit ratings are subject to change or withdrawal at any time within each rating agency's sole discretion. You should conduct your own research using publicly available sources to obtain the latest information with respect to our credit ratings from time to time.

Are we regulated by the Hong Kong Monetary Authority referred to in Rule 15A.13(2) or the Securities and Futures Commission referred to in Rule 15A.13(3)?

We are a licensed bank regulated by the Hong Kong Monetary Authority. We are also authorised and regulated by the Financial Market Supervisory Authority in Switzerland, and authorised by the Prudential Regulation Authority and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority in the United Kingdom.

Are we subject to any litigation?

Save as disclosed in this document, we and our subsidiaries are not aware of any litigation or claims of material importance pending or threatened against us or them.

Authorisation for the issue of the Structured Products

The issue of the Structured Products was authorised by our board of directors on 19 September 2001.

Has our financial position changed since last financial year-end?

There has been no material adverse change in our financial or trading position since 31 December 2015.

Do you need to pay any trading fees and levies?

The Stock Exchange currently charges a trading fee of 0.005 per cent. and the Securities and Futures Commission currently charges a transaction levy of 0.0027 per cent. for each transaction effected on the Stock Exchange payable by each of the seller and the buyer and calculated on the value of the consideration for the Structured Products. The levy for the investor compensation fund is currently suspended.

Do you need to pay any tax?

Taxation in Hong Kong

No tax is payable in Hong Kong by way of withholding or otherwise in respect of any capital gains arising on the sale of the Structured Products, except that Hong Kong profits tax may be chargeable on any such gains, which is considered as trading gain, in the case of certain persons carrying on a trade, profession or business in Hong Kong.

You do not need to pay any stamp duty in respect of purely cash settled Structured Products.

Taxation in Switzerland

Under present Swiss law, if you are a non-resident of Switzerland and have not engaged in trade or business through a permanent establishment within Switzerland during the taxable year, you will not be subject to any Swiss Federal, Cantonal or Municipal income or other tax on gains realised during the year on the sale or redemption of the Structured Products.

If you are an individual resident in a member state of the European Union or if you are a citizen of such state, transfers and redemptions of certain Structured Products which wholly or partly qualify as debt claims and any other distribution of interest on debt claims through a paying agent resident in Switzerland may be subject to interest tax withholding in Switzerland.

If you are an individual resident in the United Kingdom or in Austria or if you are a citizen of one of these states, payments on coupon dates, transfers and redemptions of certain Structured Products or other financial instruments through a paying agent resident in Switzerland may be subject to the bilateral agreements on cooperation in the area of taxation of Switzerland with the United Kingdom or Austria if you hold the product directly or indirectly as a relevant person as defined in the agreements.

There is no tax liability in Switzerland in connection with the issue of the Structured Products. However, Structured Products subscribed, transferred or redeemed through a bank or other dealer resident in Switzerland or Liechtenstein may be subject to securities transfer tax.

The above information is of a general nature only and is not intended to be a comprehensive description of all potential relevant tax considerations. We do not provide any tax advice for the Structured Products. Tax treatment depends on the individual circumstances of each client and clients must therefore seek their own tax advice from a reputable service provider. Prior to entering into a transaction you should consult with your own legal, regulatory, tax, *financial and accounting advisors to the extent you consider it necessary, and make your own investment, hedging and trading decisions (including decisions regarding the suitability of this transaction) based upon your own judgment and advice from those advisors you consider necessary.*

Placing, sale and grey market dealings

No offers, sales, re-sales, transfers or deliveries of any Structured Products, or distribution of any offering material relating to the Structured Products may be made in or from any jurisdiction except in circumstances which will result in compliance with any applicable laws or regulations and which will not impose any obligation on us. See the section "Placing and Sale" for further information.

Following the launch of a series of Structured Products, we may place all or part of that series with our related party.

The Structured Products may be sold to investors in the grey market in the period between the launch date and the listing date. We will report any dealings in Structured Products by us and/or any of our subsidiaries or associated companies in the grey market to the Stock Exchange by the listing date and such report will be released on the website of HKEX.

Where can you inspect the relevant documents?

The following documents are available for inspection during usual business hours on any weekday (Saturdays, Sundays and holidays excepted) at the offices of UBS Securities Asia Limited:

(a) our 2015 annual report;

(b) consent letter of our auditors, Ernst & Young Ltd ("**Auditors**");

(c) this document and any addendum to this document;

(d) the supplemental listing document as long as the relevant series of Structured Products is listed on the Stock Exchange; and

(e) the instrument executed by us by way of deed poll on 10 April 2006 which constitutes the Structured Products.

Requests for photocopies of the above documents will be subject to a reasonable fee which reflects the cost of making such copies.

The Listing Documents are also available on the website of the HKEX at *www.hkexnews.hk* and our website at *http://warrants.ubs.com/en*.

各上市文件亦可於香港交易所披露易網站 *www.hkexnews.hk* 以及我們的網站 *http://warrants.ubs.com/ch* 瀏覽。

Have the Auditors consented to the inclusion of their report to the Listing Documents?

Our Auditors have given and have not withdrawn their written consent to the inclusion of their report dated 10 March 2016 and/or the references to their name in this document, in the form and context in which they are included. Their report was not prepared exclusively for incorporation into this document. The Auditors do not own any of our shares or shares in our subsidiaries, nor do they have the right (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for our securities or securities of any of our subsidiaries.

Authorised representatives

Clara Au and Johnny Yu, both of 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong, are our authorised representatives and are authorised to accept services on our behalf in Hong Kong.

How can you get further information about UBS AG or the Structured Products?

You may visit *www.ubs.com* to obtain further information about us and *http://warrants.ubs.com/en* to obtain further information about the Structured Products.

Governing law of the Structured Products

All contractual documentation for the Structured Products will be governed by, and construed in accordance with, the laws of Hong Kong.

The Listing Documents are not the sole basis for making an investment decision

The Listing Documents do not take into account your investment objectives, financial situation or particular needs. Nothing in the Listing Documents should be construed as a recommendation by us or our affiliates to invest in the Structured Products or the underlying asset of the Structured Products.

No person has been authorised to give any information or to make any representations other than those contained in this document in connection with the Structured Products, and, if given or made, such information or representations must not be relied upon as having been authorised by us.

HKEX, the Stock Exchange and HKSCC have made no assessment of, nor taken any responsibility for, our financial soundness or the merits of investing in any Structured Products, nor have they verified the accuracy or the truthfulness of statements made or opinions expressed in this document.

Capitalised terms

Unless otherwise specified, capitalised terms used in this document have the meanings set out in the terms and conditions of the relevant series of Structured Products set out in Appendix 1 and Appendix 2 (together, the "**Conditions**").

General

No action has been or will be taken by us that would permit a public offering of any series of Structured Products or possession or distribution of any offering material in relation to any Structured Products in any jurisdiction (other than Hong Kong) where action for the purpose is required.

United States of America

Each series of Structured Products has not been, and will not be, registered under the Securities Act. Subject to certain exceptions, Structured Products or interests therein, may not at any time be offered, sold, resold, transferred or delivered, directly or indirectly, in the United States or to, or for the account or benefit of, any U.S. person or to others for offering, sale or resale in the United States or to any such U.S. person. Offers and sales of Structured Products, or interests therein, in the United States or to U.S. persons would constitute a violation of United States securities laws unless made in compliance with the registration requirements of the Securities Act or pursuant to an exemption therefrom. No person will offer, sell, re-sell, transfer or deliver any Structured Products within the United States or to U.S. persons, except as permitted by the base placing agreement between us and the Sponsor, acting as manager. As used herein, "**United States**" means the United States of America (including the States and the District of Columbia), its territories, its possessions and other areas subject to its jurisdiction; and "**U.S. person**" means any national or resident of the United States, including any corporation, partnership or other entity created or organised in or under the laws of the United States or of any political subdivision thereof, any estate or trust the income of which is subject to United States income taxation regardless of its source, and any other U.S. person as such term is defined in Regulation S under the Securities Act.

In addition, until 40 days after the commencement of the offering, an offer, sale, re-sale, transfer or delivery of Structured Products within the United States by a dealer that is not participating in the offering may violate the registration requirements of the Securities Act.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "**Relevant Member State**"), each dealer has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "**Relevant Implementation Date**") it has not made and will not make an offer of Structured Products which are the subject of the offering contemplated by this Base Listing Document as completed by the relevant Supplemental Listing Document in relation thereto to the public in that Relevant Member State other than:

(a) at any time to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the relevant dealer or dealers nominated by us for any such offer; or

(c) at any time in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of Structured Products shall require us or any dealer to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "**offer of Structured Products to the public**" in relation to any Structured Products in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Structured Products to be offered so as to enable an investor to decide to purchase or subscribe the Structured Products, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "**Prospectus Directive**" means Directive 2003/71/EC (as amended, including by Directive 2010/73/EU), and includes any relevant implementing measure in the Relevant Member State.

United Kingdom

Each dealer has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 ("**FSMA**")) received by it in connection with the issue or sale of the Structured Products in circumstances in which section 21(1) of the FSMA does not apply to us; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Structured Products in, from or otherwise involving the United Kingdom.

Switzerland

This document does not constitute an offer and does not constitute a prospectus within the meaning of the laws of Switzerland. The Structured Products may not be offered or sold directly or indirectly in or from Switzerland to non-qualified investors. Some or all of the Structured Products constitute structured products within the meaning of Article 5 of the Swiss Federal Act on Collective Investment Schemes (CISA). The Structured Products do not constitute collective investment schemes within the meaning of the CISA and are not subject to the supervision of the Swiss Financial Market Supervisory Authority. Therefore, investors in the Structured Products are not eligible for the specific investor protection under the CISA.

OVERVIEW OF WARRANTS

What is a derivative warrant?

A derivative warrant linked to a share, a unit, an index or other asset (each an "**Underlying Asset**") is an instrument which gives the holder a right to "buy" or "sell" the Underlying Asset at, or derives its value by reference to, a pre-set price or level called the Exercise Price/Strike Level on the Expiry Date. It usually costs a fraction of the value of the Underlying Asset.

A derivative warrant may provide leveraged return to you (but conversely, it could also magnify your losses).

How and when can you get back your investment?

Our Warrants are European style warrants. That means they can only be exercised on the Expiry Date. A warrant will, upon exercise on the Expiry Date, entitle the holder to a cash amount called the "**Cash Settlement Amount**" (if positive) according to the Conditions of that warrant.

You will receive the Cash Settlement Amount less any Exercise Expenses upon settlement at expiry. If the Cash Settlement Amount is equal to or less than the Exercise Expenses, no amount is payable to you upon expiry.

How do our warrants work?

Ordinary warrants

The potential payoff of an ordinary warrant is calculated by us by reference to the difference between:

(a) for a warrant linked to a security, the Exercise Price and the Average Price; and

(b) for a warrant linked to an index, the Strike Level and the Closing Level.

Call warrants

A call warrant is suitable for an investor holding a bullish view of the price or level of the Underlying Asset during the term of the warrant.

A call warrant will be exercised if the Average Price/Closing Level is greater than the Exercise Price/Strike Level (as the case may be). The more the Average Price/Closing Level exceeds the Exercise Price/Strike Level (as the case may be), the higher the payoff upon expiry. If the Average Price/Closing Level is at or below the Exercise Price/Strike Level (as the case may be), an investor in the call warrant will lose all of his investment.

Put warrants

A put warrant is suitable for an investor holding a bearish view of the price or level of the Underlying Asset during the term of the warrant.

A put warrant will be exercised if the Average Price/Closing Level is below the Exercise Price/Strike Level (as the case may be). The more the Average Price/Closing Level is below the Exercise Price/Strike Level (as the case may be), the higher the payoff upon expiry. If the Exercise Price/Strike Level is at or below the Average Price/Closing Level (as the case may be), an investor in the put warrant will lose all of his investment.

Other types of warrants

The supplemental listing document applicable to other types of warrants will specify the type of such warrants and whether such warrants are exotic warrants.

The Conditions applicable to each type of our warrants are set out in Parts A to C of Appendix 1 (as may be supplemented by any addendum or the relevant supplemental listing document).

What are the factors determining the price of a derivative warrant?

The price of a derivative warrant generally depends on the prevailing price or level of the Underlying Asset. However, throughout the term of a derivative warrant, its price will be influenced by a number of factors, including:

(a) the Exercise Price or Strike Level;

(b) the value and volatility of the price or level of the Underlying Asset (being a measure of the fluctuation in the price or level of the Underlying Asset over time);

(c) the time remaining to expiry: generally, the longer the remaining life of a derivative warrant, the greater its value;

(d) the interim interest rates and expected dividend payments or other distributions on the Underlying Asset or on any components comprising the underlying index;

(e) the liquidity of the Underlying Asset;

(f) the supply and demand for the derivative warrants;

(g) our related transaction costs; and

(h) our creditworthiness.

What is your maximum loss?

Your maximum loss in warrants will be your entire investment amount plus any transaction costs.

How can you get information about our warrants after issue?

You may visit the website of HKEX at *http://www.hkex.com.hk/eng/prod/secprod/dwrc/dw.htm* or our website at *http://warrants.ubs.com/home/html/warrants_e.html* to obtain information on our warrants or any notice given by us or the Stock Exchange in relation to our warrants.

OVERVIEW OF CBBCs

What are CBBCs?

CBBCs are a type of Structured Products that track the performance of an Underlying Asset. CBBCs can be issued on different types of Underlying Assets as prescribed by the Stock Exchange from time to time, including:

(a) shares listed on the Stock Exchange;

(b) Hang Seng Index, Hang Seng China Enterprises Index and Hang Seng China H-Financials Index;

(c) unit trusts listed on the Stock Exchange; and/or

(d) overseas shares, indices, currencies or commodities (such as oil, gold and platinum).

A list of eligible Underlying Assets for CBBCs is available on the website of HKEX at *http://www.hkex.com.hk/eng/prod/secprod/cbbc/underlying_latest.htm.*

CBBCs are issued either as bull CBBCs or bear CBBCs, allowing you to take either bullish or bearish positions on the Underlying Asset. Bull CBBCs are designed for investors who have an optimistic view on the Underlying Asset. Bear CBBCs are designed for investors who have a pessimistic view on the Underlying Asset.

Your maximum potential loss in a series of CBBCs is limited to the purchase price, which is generally a fraction of the value of the Underlying Asset, for the CBBCs plus the cost involved in your purchase.

CBBCs have a mandatory call feature (the "**Mandatory Call Event**") and, subject to the limited circumstances set out in the relevant Conditions in which a Mandatory Call Event may be reversed, we must terminate our CBBCs upon the occurrence of a Mandatory Call Event. See "What are the mandatory call features of CBBCs?" below.

There are 2 categories of CBBCs, namely:

(a) Category R CBBCs; and

(b) Category N CBBCs.

Your entitlement following the occurrence of a Mandatory Call Event will depend on the category of the CBBCs.

If no Mandatory Call Event occurs, the CBBCs will be exercised automatically on the Expiry Date by payment of a Cash Settlement Amount (if any) on the Settlement Date. The Cash Settlement Amount (if any) payable at expiry represents the difference between the Closing Price/Closing Level of the Underlying Asset on the Valuation Date and the Strike Price/Strike Level.

The Conditions applicable to CBBCs are set out in Parts A to C of Appendix 2 (as may be supplemented by any addendum or the relevant supplemental listing document).

What are the mandatory call features of CBBCs?

Mandatory Call Event

Subject to the limited circumstances set out in the relevant Conditions in which a Mandatory Call Event may be reversed, we must terminate the CBBCs if a Mandatory Call Event occurs. A Mandatory Call Event occurs if the Spot Price/Spot Level of the Underlying Asset is:

(a) at or below the Call Price/Call Level (in the case of a bull CBBC); or

(b) at or above the Call Price/Call Level (in the case of a bear CBBC),

at any time during the Observation Period.

The Observation Period starts from and including the Observation Commencement Date of the relevant CBBCs and ends on and including the Trading Day immediately preceding the Expiry Date.

Subject to the limited circumstances set out in the relevant Conditions in which a Mandatory Call Event may be reversed and such modification and amendment as may be prescribed by the Stock Exchange from time to time:

(a) all trades in the CBBCs concluded or recorded in the Stock Exchange's system after the time of the occurrence of a Mandatory Call Event; and

(b) where the Mandatory Call Event occurs during a pre-opening session or closing auction session (if applicable), all auction trades in the CBBCs concluded in such session,

will be invalid and will be cancelled, and will not be recognised by us or the Stock Exchange.

The time at which a Mandatory Call Event occurs will be determined by reference to:

(a) in respect of CBBCs over single equities or CBBCs over single unit trusts, the Stock Exchange's automatic order matching and execution system time at which the Spot Price is at or below the Call Price (for a series of bull CBBCs) or is at or above the Call Price (for a series of bear CBBCs); or

(b) in respect of CBBCs over index, the time the relevant Spot Level is published by the Index Compiler at which the Spot Level is at or below the Call Level (for a series of bull CBBCs) or is at or above the Call Level (for a series of bear CBBCs),

subject to the rules and requirements as prescribed by the Stock Exchange from time to time.

Category R CBBCs vs. Category N CBBCs

The supplemental listing document for the relevant series of CBBCs will specify whether the CBBCs are Category R CBBCs or Category N CBBCs.

"**Category N CBBCs**" refer to CBBCs for which the Call Price/Call Level is equal to their Strike Price/Strike Level. In respect of a series of Category N CBBCs, you will not receive any cash payment following the occurrence of a Mandatory Call Event.

"**Category R CBBCs**" refer to CBBCs for which the Call Price/Call Level is different from their Strike Price/Strike Level. In respect of a series of Category R CBBCs, you may receive a cash payment called the Residual Value upon the occurrence of a Mandatory Call Event. The amount of the Residual Value payable (if any) is calculated by reference to:

(a) in respect of a bull CBBC, the difference between the Minimum Trade Price/Minimum Index Level of the Underlying Asset and the Strike Price/Strike Level; and

(b) in respect of a bear CBBC, the difference between the Strike Price/Strike Level and the Maximum Trade Price/Maximum Index Level of the Underlying Asset.

You must read the relevant Conditions and the relevant supplemental listing document to obtain further information on the calculation formula of the Residual Value applicable to Category R CBBCs.

You may lose all of your investment in a particular series of CBBCs if:

(a) in the case of a series of bull CBBCs, the Minimum Trade Price/Minimum Index Level of the Underlying Asset is equal to or less than the Strike Price/Strike Level; or

(b) in the case of a series of bear CBBCs, the Maximum Trade Price/Maximum Index Level of the Underlying Asset is equal to or greater than the Strike Price/Strike Level.

How is the funding cost calculated?

The issue price of a CBBC represents the difference between the initial reference spot price or level of the Underlying Asset as at the launch date of the CBBC and the Strike Price/Strike Level, plus the applicable funding cost.

The initial funding cost applicable to each series of CBBCs will be specified in the relevant supplemental listing document for the relevant series and will fluctuate throughout the life of the CBBCs as the funding rate changes from time to time. The funding rate is a rate determined by us based on one or more of the following factors, including but not limited to the Strike Price/Strike Level, the prevailing interest rate, the expected life of the CBBCs, expected notional dividends or distributions in respect of the Underlying Asset and the margin financing provided by us.

Further details about the funding cost applicable to a series of CBBCs will be described in the relevant supplemental listing document.

Do you own the Underlying Asset?

CBBCs convey no interest in the Underlying Asset. We may choose not to hold the Underlying Asset or any derivatives contracts linked to the Underlying Asset. There is no restriction through the issue of the CBBCs on the ability of us and/or our affiliates to sell, pledge or otherwise convey all right, title and interest in any Underlying Asset or any derivatives products linked to the Underlying Asset.

What are the factors determining the price of a CBBC?

Although the price of a CBBC tends to mirror the movement in the value of the Underlying Asset in dollar value (on the assumption of an entitlement ratio of one CBBC to one Underlying Asset), movement in the price of the CBBC may not always correspond with the movement in value of the Underlying Asset.

However, throughout the term of a CBBC, its price will be influenced by a number of factors, including:

(a) the Strike Price/Strike Level and the Call Price/Call Level;

(b) the likelihood of the occurrence of a Mandatory Call Event;

(c) for Category R CBBCs only, the probable range of the Residual Value (if any) payable upon the occurrence of a Mandatory Call Event;

(d) the time remaining to expiry;

(e) the interim interest rates and expected dividend payments or other distributions on the Underlying Asset or on any components comprising the underlying index;

(f) the liquidity of the Underlying Asset;

(g) the supply and demand for the CBBCs;

(h) the probable range of the Cash Settlement Amounts;

(i) the depth of the market and liquidity of the Underlying Asset or of the future contracts relating to the underlying index;

(j) our related transaction costs; and

(k) our creditworthiness.

What is your maximum loss?

Your maximum loss in CBBCs will be your entire investment amount plus any transaction costs.

How can you get information about our CBBCs after issue?

You may visit the website of HKEX at *http://www.hkex.com.hk/eng/prod/secprod/cbbc/intro.htm* or our website at *http://warrants.ubs.com/home/html/cbbc_e.html* to obtain information on our CBBCs or any notice given by us or the Stock Exchange in relation to our CBBCs.

INFORMATION IN RELATION TO US

1. Overview

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, "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 builds on the strengths of all of its businesses and focuses its efforts on areas in which UBS excels, while seeking to capitalize on the compelling growth prospects in the businesses and regions in which it operates, in order to generate attractive and sustainable returns for shareholders. All of UBS's businesses are capital-efficient and benefit from a strong competitive position in their targeted markets.

2. Corporate Information

The legal and commercial name of the company 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 stock corporation.

According to article 2 of the Articles of Association of UBS AG, dated 15 February 2016 ("**Articles of Association**"), 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 enterprise 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 provide loans, guarantees and other kinds of financing and security for Group companies and borrow and invest money on the money and capital markets.

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.

3. Organizational Structure of UBS AG

UBS operates as a group with five business divisions and a Corporate Center. UBS Group AG is the parent company of UBS AG, and the holding company of the UBS Group.

Over the past two years, 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 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 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 Retail & Corporate (now Personal & Corporate Banking) and Wealth Management business booked in Switzerland to UBS Switzerland AG, a banking subsidiary of UBS AG in Switzerland.

In the second quarter of 2015, UBS 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.

In the third quarter of 2015, UBS established UBS Business Solutions AG as a direct subsidiary of UBS Group AG to act as the Group service company. UBS will transfer the ownership of the majority of its existing service subsidiaries to this entity. UBS expects that the transfer of shared service and support functions into the service company structure will be implemented in a staged approach through 2018. 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.

Also during 2015, UBS AG established a new subsidiary, UBS Americas Holding LLC, which UBS 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 UBS's US operations, except branches of UBS AG.

UBS has also established a new subsidiary of UBS AG, UBS Asset Management AG, into which it expects to transfer the majority of the operating subsidiaries of Asset Management during 2016. UBS continues to consider further changes to the legal entities used by Asset Management, including the transfer of operations conducted by UBS AG in Switzerland into a subsidiary of UBS Asset Management AG.

UBS continues to consider further changes to the Group's legal structure in response to capital and other regulatory requirements, and in order to obtain any rebate in capital requirements for which the Group may be eligible. Such changes may include the transfer of operating subsidiaries of UBS AG to become direct subsidiaries of UBS Group AG, consolidation of operating subsidiaries in the European Union, 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**") and other regulatory authorities, and remain subject to a number of uncertainties that may affect their feasibility, scope or timing.

UBS Group AG's interests in subsidiaries and other entities as of 31 December 2015, including interests in significant subsidiaries, are discussed in the Annual Report 2015, on pages 540-549 (inclusive) of the English version.

4. Board of Directors

The BoD is the most senior body of UBS AG. The BoD consists of at least six and a maximum of 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 completion of the next AGM. Shareholders also elect the Chairman and the members of the Compensation Committee.

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

4.1 Members of the Board of Directors

Member and business address	Title	Term of office	Current principal positions outside UBS AG
Axel A. Weber	Chairman	2016	Chairman of the Board of Directors of UBS Group AG. Member of the board of the Swiss Bankers Association, of the Board of Trustees of Avenir Suisse, of the Advisory Board of Zukunft Finanzplatz, of the Board of the Swiss Finance Council, of the Board of the Institute of International Finance, of the Board of the International Monetary Conference; member of the European Financial Services Roundtable and the European Banking Group; member of the International Advisory Panel, Monetary Authority of Singapore; member of the board of the Financial Services Professional Board, Kuala Lumpur; 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.
Michel Demaré	Independent Vice Chairman	2016	Independent Vice Chairman of the Board of Directors of UBS Group AG. Chairman of the board of Syngenta; board member of Louis-Dreyfus Commodities Holdings BV; Supervisory Board member of IMD, Lausanne; Chairman of the Syngenta Foundation for Sustainable Agriculture. Member of the advisory board of the Department of Banking and Finance, University of Zurich. Member of the Advisory Board of Zukunft Finanzplatz.
David Sidwell	Senior Independent Director	2016	Senior Independent Director of the Board of Directors of UBS Group AG. Director and Chairperson of the Risk Policy and Capital Committee of Fannie Mae, Washington D.C.; 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	Member	2016	Member of the Board of Directors of UBS Group AG. Professor, University of Basel; member of the board of Francioni AG, Swiss International Air Lines and MedTech Innovation Partners AG.
Ann F. Godbehere	Member	2016	Member of the Board of Directors of UBS Group AG. Board member and Chairperson of the Audit Committee of Prudential plc, Rio Tinto plc and Rio Tinto Limited. Member of the board of British American Tobacco plc.
William G. Parrett	Member	2016	Member of the Board of Directors of UBS Group AG. Member of the board and Chairperson of the Audit Committee of the Eastman Kodak Company; board member of the Blackstone Group LP (chairman of audit committee and chairman of the conflicts committee); board member of Thermo Fisher Scientific Inc. (chairman of audit committee); 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.

Member and business address	Title	Term of office	Current principal positions outside UBS AG
Isabelle Romy	Member	2016	Member of the Board of Directors of UBS Group AG. Partner at Froriep, 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.
Beatrice Weder di Mauro	Member	2016	Member of the Board of Directors of UBS Group AG. Professor at the Johannes Gutenberg University, Mainz; member of the board of Roche Holding Ltd., Basel, and supervisory board of Robert Bosch GmbH, Stuttgart. Member of the ETH Zurich Foundation Board of Trustees. Member of the economic advisory board of Fraport AG; member of the advisory board of Deloitte Germany. Deputy Chairman of the University Council of the University of Mainz. Member of the Senate of the Max Planck Society.
Joseph Yam	Member	2016	Member of the Board of Directors of UBS Group AG. Executive Vice President of the China Society for Finance and Banking. Member of the board of Johnson Electric Holdings Limited, of UnionPay International Co., Ltd. and of The Community Chest of Hong Kong. International Advisory Council member of China Investment Corporation; Distinguished Research Fellow at the Institute of Global Economics and Finance at the Chinese University of Hong Kong.

RISK FACTORS

Not all of the risk factors described below will be applicable to a particular series of the Structured Products. Please consider all risks carefully prior to investing in any Structured Products and consult your professional independent financial adviser and legal, accounting, tax and other advisers with respect to any investment in the Structured Products. Please read the following section together with the risk factors set out in the relevant supplemental listing document.

General risks relating to us

Non-collateralised Structured Products

The Structured Products are not secured on any of our assets or any collateral.

Each series of Structured Products constitutes our general unsecured contractual obligations and of no other person and will rank equally with our other unsecured contractual obligations and unsecured and unsubordinated debt. At any given time, the number of our Structured Products outstanding may be substantial.

Our creditworthiness

If you invest in our Structured Products, you are relying on our creditworthiness and of no other person. If we become insolvent or default on our obligations under the Structured Products, you can only claim as our unsecured creditor regardless of the performance of the Underlying Asset and you may not be able to recover all or even part of the amount due under the Structured Products (if any). You have no rights under the terms of the Structured Products against:

(a) any company which issues the underlying shares;

(b) the trustee or the manager of the underlying trust; or

(c) any index compiler or any company which has issued any constituent securities of the underlying index.

We do not guarantee the repayment of your investment in any Structured Product.

Any downgrading of our credit rating by rating agencies such as Moody's or S&P, could result in a reduction in the value of the Structured Products.

Resolution and recovery regime

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 or UBS 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. Additionally, creditors would have no right under Swiss law or in Swiss courts to reject, seek the suspension of, or challenge the imposition of any such protective measures, including those that require or result in the deferment of payments owed to creditors.

If restructuring proceedings are opened with respect to UBS Group AG, UBS AG or UBS Switzerland AG, the resolution powers, which 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. Certain categories of debt obligations, such as certain types of deposits, are protected. 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 “singlepoint- 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 untouched 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.

In any event, the exercise of any resolution power by the relevant resolution authorities in respect of UBS could materially adversely affect the value of the Structured Product, and you may not be able to recover all or even part of the amount due under the Structured Product.

Repurchase of our Structured Products

We, our subsidiaries and affiliates (the “**Group**”) may repurchase the Structured Products from time to time in the private market or otherwise at a negotiated price or the prevailing market price at our discretion. You should not make any assumption as to the number of Structured Products in issue for any particular series at any time.

No deposit liability or debt obligation

We are obliged to deliver to you the Cash Settlement Amount under the Conditions of each series of the Structured Products upon expiry. We do not intend (expressly, implicitly or otherwise) to create a deposit liability or a debt obligation of any kind by the issue of any Structured Product.

Conflicts of interest

The Group is a diversified financial institution with relationships in countries around the world. The Group engages in a wide range of commercial and investment banking, brokerage, funds management, hedging transactions and investment and other activities for our own account or the account of others. In addition, the Group, in connection with our other business activities, may possess or acquire material information about the Underlying Assets or may issue or update research reports on the Underlying Assets. Such activities, information and/or research reports may involve or otherwise affect the Underlying Assets in a manner that may cause consequences adverse to you or otherwise create conflicts of interests in connection with the issue of Structured Products by us. Such actions and conflicts may include, without limitation, the purchase and sale of securities, financial advisory relationships and exercise of creditor rights. The Group:

(a) has no obligation to disclose such information about the Underlying Assets or such activities. The Group and our officers and directors may engage in any such activities without regard to the issue of Structured Products by us or the effect that such activities may directly or indirectly have on any Structured Product;

(b) may from time to time engage in transactions involving the Underlying Assets for our proprietary accounts and/or for accounts under our management and/or to hedge against the market risk associated with issuing the Structured Products. Such transactions may have a positive or negative effect on the price/level of the Underlying Assets and consequently upon the value of the relevant series of Structured Products;

(c) may from time to time act in other capacities with regard to the Structured Products, such as in an agency capacity and/or as the liquidity provider;

(d) may issue other derivative instruments in respect of the Underlying Assets and the introduction of such competing products into the market place may affect the value of the relevant series of Structured Products; and

(e) may also act as underwriter in connection with future offerings of shares, units or other securities or may act as financial adviser to the issuer, or sponsor, as the case may be, of any such share, unit or other security or in a commercial banking capacity for the issuer of any share, units or other security or the trustee or the manager of the trust. Such activities could present certain conflicts of interest and may affect the value of the Structured Products.

Our operating environment and strategy

Certain risks, including those as set out in Appendix 5, may impact our ability to execute our strategy and directly affect our business activities, financial condition, results of operations and prospects. As a broad-based international financial services firm, we are inherently exposed to risks that 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 materially affect our business activities, financial condition, results of operations and prospects. The sequence in which the risk factors are set out in Appendix 5 is not indicative of their likelihood of occurrence or the potential magnitude of their financial consequences.

Our operating results, financial condition and ability to pay obligations in the future

Our 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 any other subsidiaries currently existing or established by us in the future. The ability of such subsidiaries to make loans or distributions (directly or indirectly) to us may be restricted as a result of several factors, including restrictions in financing agreements, the requirements of applicable laws and regulatory, fiscal or other restrictions. Our subsidiaries, including UBS Switzerland AG, UBS Limited and the US IHC (when designated) 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 us, or limit or prohibit transactions with affiliates. Restrictions and regulatory actions of this kind could impede access to funds that we may need to make payments.

In addition, our 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.

Furthermore, we may guarantee some of the payment obligations of certain of our subsidiaries from time to time. Additionally, in connection with the transfer of the Retail & Corporate (now Personal & Corporate Banking) and Wealth Management business booked in Switzerland from us to UBS Switzerland AG in June 2015, under the Swiss Merger Act, UBS AG is jointly liable for obligations existing on the asset transfer date, 14 June 2015, that were transferred to UBS Switzerland AG. These guarantees may require us to provide substantial funds or assets to subsidiaries or their creditors or counterparties at a time when we are in need of liquidity to fund our own obligations.

General risks relating to Structured Products

You may lose all your investment in the Structured Products

Structured Products involve a high degree of risk, and are subject to a number of risks which may include interest, foreign exchange, time value, market and/or political risks. Structured Products may expire worthless.

Options, warrants and asset linked instruments are priced primarily on the basis of the price/level of the Underlying Asset, the volatility of the Underlying Asset's price/level and the time remaining to expiry of the Structured Product.

The price of Structured Products generally may fall in value as rapidly as they may rise and you should be prepared to sustain a significant or total loss of the purchase price of the Structured Products. Assuming all other factors are held constant, the more the underlying share price, unit price or index level of a Structured Product moves in a direction against you and the shorter its remaining term to expiration, the greater the risk that you will lose all or a significant part of your investment.

The Structured Products are only exercisable on their respective Expiry Dates and may not be exercised by you prior to the relevant Expiry Date. Accordingly, if on such Expiry Date the Cash Settlement Amount is zero or negative, you will lose the value of your investment.

The risk of losing all or any part of the purchase price of a Structured Product means that, in order to recover and realise a return on investment, you must generally anticipate correctly the direction, timing and magnitude of any change in the price/level of the Underlying Asset as may be specified in the relevant supplemental listing document.

Changes in the price/level of an Underlying Asset can be unpredictable, sudden and large and such changes may result in the price/level of the Underlying Asset moving in a direction which will negatively impact upon the return on your investment. You therefore risk losing your entire investment if the price/level of the relevant Underlying Asset does not move in the anticipated direction.

The value of the Structured Products may be disproportionate or opposite to movement in price/level of the Underlying Assets

An investment in Structured Products is not the same as owning the Underlying Assets or having a direct investment in the Underlying Asset. The market values of Structured Products are linked to the relevant Underlying Assets and will be influenced (positively or negatively) by it or them but any change may not be comparable and may be disproportionate. It is possible that while the price/level of the Underlying Assets is increasing, the value of the Structured Product is falling.

If you intend to purchase any series of Structured Products to hedge against the market risk associated with investing in the Underlying Asset specified in the relevant supplemental listing document, you should recognise the complexities of utilizing Structured Products in this manner. For example, the value of the Structured Products may not exactly correlate with the price/level of the Underlying Asset. Due to fluctuations in supply and demand for Structured Products, there is no assurance that their value will correlate with movements of the Underlying Asset. The Structured Products may not be a perfect hedge to the Underlying Asset or portfolio of which the Underlying Asset forms a part.

It may not be possible to liquidate the Structured Products at a level which directly reflects the price/level of the Underlying Asset or portfolio of which the Underlying Asset forms a part. Therefore, it is possible that you could suffer substantial losses in the Structured Products in addition to any losses suffered with respect to investments in or exposures to the Underlying Asset.

Possible illiquidity of secondary market

It is not possible to predict if and to what extent a secondary market may develop in any series of Structured Products and at what price such series of Structured Products will trade in the secondary market and whether such market will be liquid or illiquid. The fact that the Structured Products are listed does not necessarily lead to greater liquidity than if they were not listed.

If any series of Structured Products are not listed or traded on any exchange, pricing information for such series of Structured Products may be difficult to obtain and the liquidity of that series of Structured Products may be adversely affected.

The liquidity of any series of Structured Products may also be affected by restrictions on offers and sales of the Structured Products in some jurisdictions. Transactions in off-exchange Structured Products may be subject to greater risks than dealing in exchange-traded Structured Products. To the extent that any Structured Products of a series is closed out, the number of Structured Products outstanding in that series will decrease, which may result in a lessening of the liquidity of Structured Products. A lessening of the liquidity of the affected series of Structured Products may cause, in turn, an increase in the volatility associated with the price of such Structured Products.

While we have, or will appoint, a liquidity provider for the purposes of making a market for each series of Structured Products, there may be circumstances outside our control or the appointed liquidity provider's control where the appointed liquidity provider's ability to make a market in some or all series of Structured Products is limited, restricted, and/or without limitation, frustrated. In such circumstances we will use our best endeavours to appoint an alternative liquidity provider.

Interest rates

Investments in the Structured Products may involve interest rate risk with respect to the currency of denomination of the Underlying Assets and/or the Structured Products. A variety of factors influence interest rates such as macro economic, governmental, speculative and market sentiment factors. Such fluctuations may have an impact on the value of the Structured Products at any time prior to valuation of the Underlying Assets relating to the Structured Products.

Time decay

The settlement amount of certain series of Structured Products at any time prior to expiration may be less than the trading price of such Structured Products at that time. The difference between the trading price and the settlement amount will reflect, among other things, a "time value" of the Structured Products. The "time value" of the Structured Products will depend upon, among others, the length of the period remaining to expiration and expectations concerning the range of possible future price/level of the Underlying Assets. The value of a Structured Product will decrease over time as the length of the period remaining to expiration becomes shorter. Therefore, the Structured Products should not be viewed as products for long term investments.

Exchange rate risk

There may be an exchange rate risk in the case of Structured Products where the Cash Settlement Amount will be converted from a foreign currency into Hong Kong dollars. Exchange rates between currencies are determined by forces of supply and demand in the foreign exchange markets. These forces are, in turn, affected by factors such as international balances of payments and other economic and financial conditions, government intervention in currency markets and currency trading speculation.

Fluctuations in foreign exchange rates, foreign political and economic developments and the imposition of exchange controls or other foreign governmental laws or restrictions applicable to such investments may affect the foreign currency market price and the exchange rate-adjusted equivalent price of the Structured Products. Fluctuations in the exchange rate of any one currency may be offset by fluctuations in the exchange rate of other relevant currencies. There can be no assurance that rates of exchange between any relevant currencies which are current rates at the date of issue of any Structured Products will be representative of the relevant rates of exchange used in computing the value of the relevant Structured Products at any time thereafter.

Where Structured Products are described as being "quantoed", the value of the Underlying Assets will be converted from one currency (the "**Original Currency**") into a new currency (the "**New Currency**") on the date and in the manner specified in, or implied by, the Conditions using a fixed exchange rate. The cost to us of maintaining such a fixing between the Original Currency and the New Currency will have an implication on the value of the Structured Products, which will vary during the term of the Structured Products. No assurance can be given as to whether or not, taking into account relative exchange rate and interest rate fluctuations between the Original Currency and the New Currency, a quanto feature in a Structured Product would at any time enhance the return on the Structured Product over a level of a similar Structured Product issued without such a quanto feature.

Taxes

You may be required to pay stamp duty or other taxes or other documentary charges. If you are in doubt as to your tax position, you should consult your own independent tax advisers. In addition, you should be aware that tax regulations and their application by the relevant taxation authorities change from time to time. Accordingly, it is not possible to predict the precise tax treatment which will apply at any given time. See "Do you need to pay any tax?" in the section headed "Important Information" on page 4 for further information.

Modification to the Conditions

Under the Conditions, we may, without your consent, effect any modification of the terms and conditions of the Structured Products or the Instrument which, in our opinion, is:

(a) not materially prejudicial to the interest of the Structured Products holders generally (without considering your individual circumstances or the tax or other consequences of such modification in any particular jurisdiction);

(b) of a formal, minor or technical nature;

(c) made to correct a manifest error; or

(d) necessary in order to comply with mandatory provisions of the laws or regulations of Hong Kong.

Possible early termination for illegality or impracticability

If we determine in good faith and in a commercially reasonable manner that, for reasons beyond our control, the performance of our obligations under the Structured Products has become illegal or impracticable (or in the case of CBBCs only, it is no longer desirable or practical for us to maintain our hedging arrangement with respect to the CBBCs), we may terminate early such Structured Products. If we terminate early the Structured Products, we will, if and to the extent permitted by applicable law, pay an amount determined by us in good faith and in a commercially reasonable manner to be their fair market value notwithstanding the illegality or impracticability (or hedging disruption) less the cost to us of unwinding any related hedging arrangements, which may be substantially less than your initial investment and may be zero.

Risks relating to the Underlying Asset

You have no right to the Underlying Asset

Unless specifically indicated in the Conditions, you will not be entitled to:

(i) voting rights or rights to receive dividends or other distributions or any other rights that a holder of the Underlying Asset would normally be entitled to; or

(ii) voting rights or rights to receive dividends or other distributions or any other rights with respect to any company constituting any underlying index.

Valuation risk

An investment in Structured Products may involve valuation risk as regards the Underlying Assets to which the particular series of Structured Products relate. The price/level of the Underlying Asset may vary over time and may increase or decrease by reference to a variety of factors which may include corporate actions, macro economic factors, speculation and (where the Underlying Asset is an index) changes in the formula for or the method of calculating the index.

You must be experienced with dealing in these types of Structured Products and must understand the risks associated with dealing in such products. You should reach an investment decision only after careful consideration, with your advisers, of the suitability of any Structured Product in light of your particular financial circumstances, the information regarding the relevant Structured Product and the particular Underlying Asset to which the value of the relevant Structured Product relates.

Adjustment related risk

In the case of Structured Products relating to a single equity or a unit trust ("**Security**"), certain corporate events relating to the Security require or, as the case may be, permit us to make certain adjustments or amendments to the Conditions. You have limited anti-dilution protection under the Conditions of the Structured Products. We may, in our sole discretion adjust, among other things, the Entitlement, the Exercise Price (if applicable), the Call Price (if applicable), the Strike Price (if applicable) or any other terms (including without limitation the Closing Price of the Security) of any series of Structured Product for events such as rights issue, bonus issue, subdivision, consolidation, cash distribution or restructuring event. However, we are not required to make an adjustment for every event that may affect a Security, in which case the market price of the Structured Products and the return upon the expiry of the Structured Products may be affected.

In addition, if the Security ceases to be listed on the Stock Exchange during the term of the Structured Products, we may make adjustments and/or amendments to the rights attaching to the Structured Products pursuant to the Conditions of the Structured Products. Such adjustments and/or amendments will be conclusive and binding on you.

In the case of Structured Products which relate to an index, the level of the index may be published by the index compiler at a time when one or more shares comprising in the index are not trading. If this occurs on the Valuation Date but such occurrence does not constitute a Market Disruption Event under the Conditions then the value of such share(s) may not be included in the level of the index. In addition, certain events relating to the index (including a material change in the formula or the method of calculating the index or a failure to publish the index) permit us to determine the level of the index on the basis of the formula or method last in effect prior to such change in formula or method.

Suspension of trading

If the Underlying Assets are suspended from trading or dealing for whatever reason on the market on which they are listed or dealt in (including the Stock Exchange), trading in the relevant series of Structured Products will be suspended for a similar period. The value of the Structured Products will decrease over time as the length of the period remaining to expiration becomes shorter. In such circumstances, you should note that in the case of a prolonged suspension period, the market price of the Structured Products may be subject to a significant impact of time decay of such prolonged suspension period and may fluctuate significantly upon resumption of trading after the suspension period of the Structured Products. This may adversely affect your investment in the Structured Products.

Delay in settlement

Unless otherwise specified in the relevant Conditions, in the case of any expiry of Structured Products, there may be a time lag between the date on which the Structured Products expire, and the time the applicable settlement amount relating to such event is determined. Any such delay between the time of expiry and the determination of the settlement amount will be specified in the relevant Conditions.

However, such delay could be significantly longer, particularly in the case of a delay in the expiry of such Structured Products arising from our determination that a Market Disruption Event, Settlement Disruption Event or delisting of the underlying shares or units has occurred at any relevant time or that adjustments are required in accordance with the Conditions.

That applicable settlement amount may change significantly during any such period, and such movement or movements could decrease or modify the settlement amount of the Structured Products.

You should note that in the event of there being a Settlement Disruption Event or a Market Disruption Event, payment of the Cash Settlement Amount may be delayed as more fully described in the Conditions.

Risks relating to Structured Products over trusts

General risks

In the case of Structured Products which relate to the units of a trust:

(a) neither we nor any of our affiliates have the ability to control or predict the actions of the trustee or the manager of the relevant trust. Neither the trustee nor the manager of the relevant trust (i) is involved in the offer of any Structured Product in any way, or (ii) has any obligation to consider the interest of the holders of any Structured Product in taking any corporate actions that might affect the value of any Structured Product; and

(b) we have no role in the relevant trust. The manager of the relevant trust is responsible for making strategic, investment and other trading decisions with respect to the management of the relevant trust consistent with its investment objectives and in compliance with the investment restrictions as set out in the constitutive documents of the relevant trust. The manner in which the relevant trust is managed and the timing of actions may have a significant impact on the performance of the relevant trust. Hence, the market price of the relevant units is also subject to these risks.

Exchange traded funds

Where the Underlying Asset of Structured Products comprises the units of an exchange traded fund ("**ETF**"), you should note that:

(a) an ETF is exposed to the economic, political, currency, legal and other risks of a specific sector or market related to the underlying asset pool or index or market that the ETF is designed to track;

(b) there may be disparity between the performance of the ETF and the performance of the underlying asset pool or index or market that the ETF is designed to track as a result of, for example, failure of the tracking strategy, currency differences, fees and expenses; and

(c) where the underlying asset pool or index or market that the ETF tracks is subject to restricted access, the efficiency in the unit creation or redemption to keep the price of the ETF in line with its net asset value may be disrupted, causing the ETF to trade at a higher premium or discount to its net asset value. Hence, the market price of the Structured Products will also be indirectly subject to these risks.

Synthetic exchange traded funds

Additionally, where the Underlying Asset of Structured Products comprises the units of an ETF adopting a synthetic replication investment strategy to achieve its investment objectives by investing in financial derivative instruments linked to the performance of an underlying asset pool or index that the ETF is designed to track ("**Synthetic ETF**"), you should note that:

(a) investments in financial derivative instruments will expose the Synthetic ETF to the credit, potential contagion and concentration risks of the counterparties who issued such financial derivative instruments. As such counterparties are predominantly international financial institutions, the failure of any such counterparty may have a negative effect on other counterparties of the Synthetic ETF. Even if the Synthetic ETF has collateral to reduce the counterparty risk, there may still be a risk that the market value of the collateral has fallen substantially when the Synthetic ETF seeks to realise the collateral; and

(b) the Synthetic ETF may be exposed to higher liquidity risk if the Synthetic ETF invests in financial derivative instruments which do not have an active secondary market.

The above risks may have a significant impact on the performance of the relevant ETF or Synthetic ETF and hence the market price of Structured Products linked to such ETF or Synthetic ETF.

*RQFII A-share ETF ("**RQFII ETF**")*

An RQFII ETF is issued and traded outside Mainland China with direct investment in the Mainland China's A-share markets through the Renminbi Qualified Foreign Institutional Investor ("**RQFII**") regime. Where the Underlying Asset of Structured Products comprises the units of an RQFII ETF, you should note that, amongst others:

(a) the novelty and untested nature of an RQFII ETF make it riskier than traditional ETFs investing directly in more developed markets. The policy and rules for RQFII prescribed by the Mainland China government are new and subject to change, and there may be uncertainty to its implementation. The uncertainty and change of the laws and regulations in Mainland China may adversely impact on the performance of the relevant trust and the trading price of the relevant units;

(b) as disclosed in its offering documents, an RQFII ETF primarily invests in securities traded in the Mainland China's A-share markets and is subject to concentration risk. Investment in the Mainland China's A-share markets (which are inherently stock markets with restricted access) involves certain risks and special considerations as compared with investment in more developed economies or markets, such as greater political, tax, economic, foreign exchange, liquidity and regulatory risks. The operation of an RQFII ETF may also be affected by interventions by the applicable government(s) and regulators in the financial markets; and

(c) an RQFII ETF will utilize its manager's RQFII quota allocated to such fund under the RQFII regime. In the event that RQFII quota allocated to the RQFII ETF is reached and the manager is unable to acquire additional RQFII quota for the RQFII ETF, the manager may need to suspend creation of further units of the RQFII ETF, and therefore may affect liquidity in unit trading of the RQFII ETF. In such event, the trading price of a unit of the RQFII ETF is likely to be at a significant premium to its net asset value, and may be highly volatile.

The above risks may have a significant impact on the performance of the relevant units and the price of the Structured Products.

Please read the offering documents of the relevant RQFII ETF to understand its key features and risks.

ETF traded through dual counters model

Where the Underlying Asset of Structured Products comprises the units of an ETF which adopts the dual counters model for trading its units on the Stock Exchange in Renminbi ("**RMB**") and Hong Kong dollars ("**HKD**") separately, the novelty and relatively untested nature of the Stock Exchange's dual counters model may bring the following additional risks:

(a) the Structured Products may be linked to the HKD-traded units or the RMB-traded units. If the Underlying Asset of Structured Products is the HKD-traded units, movements in the trading prices of the RMB-traded units should not directly affect the price of the Structured Products. Similarly, if the Underlying Asset of Structured Products is the RMB-traded units, movements in the trading prices of the HKD-traded units should not directly affect the price of the Structured Products;

(b) if there is a suspension of inter-counter transfer of such units between the HKD counter and the RMB counter for any reason, such units will only be able to be traded in the relevant currency counter on the Stock Exchange, which may affect the demand and supply of such units and have an adverse effect on the price of the Structured Products; and

(c) the trading price on the Stock Exchange of the HKD-traded units and RMB-traded units may deviate significantly due to different factors, such as market liquidity, RMB conversion risk, supply and demand in each counter and the exchange rate between RMB and HKD. Changes in the trading price of the Underlying Asset of Structured Products in HKD or RMB (as the case may be) may adversely affect the price of the Structured Products.

*Real estate investment trust ("**REIT**")*

Where the Underlying Asset of Structured Products comprises the units of a REIT, you should note that the investment objective of a REIT is to invest in a real estate portfolio. Each REIT is exposed to risks relating to investments in real estate, including but not limited to (a) adverse changes in political or economic conditions; (b) changes in interest rates and the availability of debt or equity financing, which may result in an inability by the REIT to maintain or improve the real estate portfolio and finance future acquisitions; (c) changes in environmental, zoning and other governmental rules; (d) changes in market rents; (e) any required repair and maintenance of the portfolio properties; (f) breach of any property laws or regulations; (g) the relative illiquidity of real estate investment; (h) real estate taxes; (i) any hidden interests in the portfolio properties; (j) any increase in insurance premiums and (k) any uninsurable losses.

There may also be disparity between the market price of the units of a REIT and the net asset value per unit. This is because the market price of the units of a REIT also depends on many factors, including but not limited to (a) the market value and perceived prospects of the real estate portfolio; (b) changes in economic or market conditions; (c) changes in market valuations of similar companies; (d) changes in interest rates; (e) the perceived attractiveness of the units of the REIT against those of other equity securities; (f) the future size and liquidity of the market for the units and the REIT market generally; (g) any future changes to the regulatory system, including the tax system and (h) the ability of the REIT to implement its investment and growth strategies and to retain its key personnel.

The above risks may have a significant impact on the performance of the relevant units and the price of the Structured Products.

Risk relating to CBBCs

Correlation between the price of a CBBC and the price/level of the Underlying Asset

When the Underlying Asset of a CBBC is trading at a price/level close to its Call Price/Call Level, the price of that CBBC tends to be more volatile and any change in the value of that CBBC at such time may be incomparable and disproportionate to the change in the price/level of the Underlying Asset.

You may lose your entire investment when a Mandatory Call Event occurs

Unlike warrants, CBBCs has a mandatory call feature and trading in the CBBCs will be suspended when the Spot Level/Spot Price reaches the Call Level/Call Price (subject to the circumstances in which a Mandatory Call Event will be reversed as set out below). No investors can sell the CBBCs after the occurrence of a Mandatory Call Event. Even if the level/price of the Underlying Asset bounces back in the right direction, the CBBCs which have been terminated as a result of the Mandatory Call Event will not be revived and investors will not be able to profit from the bounce-back. Investors may receive a Residual Value after the occurrence of a Mandatory Call Event but such amount may be zero.

Mandatory Call Event is irrevocable except in limited circumstances

A Mandatory Call Event is irrevocable unless it is triggered as a result of any of the following events:

(a) system malfunction or other technical errors of HKEX (such as the setting up of wrong Call Price/Call Level and other parameters), and such event is reported by the Stock Exchange to us and we and the Stock Exchange mutually agree that such Mandatory Call Event is to be revoked; or

(b) manifest errors caused by the relevant third party price source where applicable (such as miscalculation of the index level by the relevant index compiler), and such event is reported by us to the Stock Exchange and we and the Stock Exchange mutually agree that such Mandatory Call Event is to be revoked,

in each case, such mutual agreement must be reached between the Stock Exchange and us as prescribed in the relevant procedures by the Stock Exchange from time to time. Upon revocation of the Mandatory Call Event, trading of the CBBCs will resume and any trade cancelled after such Mandatory Call Event will be reinstated.

Non-recognition of Post MCE Trades

The Stock Exchange and its recognised exchange controller, HKEX, shall not incur any liability (whether based on contract, tort (including, without limitation, negligence), or any other legal or equitable grounds and without regard to the circumstances giving rise to any purported claim except in the case of wilful misconduct on the part of the Stock Exchange and/or HKEX) for any direct, consequential, special, indirect, economic, punitive, exemplary or any other loss or damage suffered or incurred by us or any other party arising from or in connection with the Mandatory Call Event or the suspension of trading ("**Trading Suspension**") or the non-recognition of trades after a Mandatory Call Event ("**Non-Recognition of Post MCE Trades**"), including without limitation, any delay, failure, mistake or error in the Trading Suspension or Non-Recognition of Post MCE Trades.

We and our affiliates shall not have any responsibility towards you for any losses suffered as a result of the Trading Suspension and/or

Non-Recognition of Post MCE Trades in connection with the occurrence of a Mandatory Call Event, notwithstanding that such Trading Suspension or Non-Recognition of Post MCE Trades may have occurred as a result of an error in the observation of the event.

Residual Value will not include residual funding cost

For Category R CBBCs, the Residual Value (if any) payable by us following the occurrence of a Mandatory Call Event will not include the residual funding cost for the CBBCs. You will not receive any residual funding cost back from us upon early termination of a Category R CBBC following the occurrence of a Mandatory Call Event.

Delay in announcements of a Mandatory Call Event

The Stock Exchange will notify the market as soon as practicable after the CBBC has been called. You must however be aware that there may be delay in the announcements of a Mandatory Call Event due to technical errors or system failures and other factors that are beyond our control or the control of the Stock Exchange.

Our hedging activities may adversely affect the price/level of the Underlying Asset

We and/or any of our affiliates may carry out activities that minimise our risks related to the CBBCs, including effecting transactions for our own account or for the account of our customers and hold long or short positions in the Underlying Asset whether for risk reduction purposes or otherwise. In addition, in connection with the offering of any CBBCs, we and/or any of our affiliates may enter into one or more hedging transactions with respect to the Underlying Asset. In connection with such hedging or market-making activities or with respect to proprietary or other trading activities by us and/or any of our affiliates, we and/or any of our affiliates may enter into transactions in the Underlying Asset which may affect the market price, liquidity or price/level of the Underlying Asset and/or the value of CBBCs and which could be deemed to be adverse to your interests. We and/or our affiliates are likely to modify our hedging positions throughout the life of the CBBCs whether by effecting transactions in the Underlying Asset or in derivatives linked to the Underlying Asset. Further, it is possible that the advisory services which we and/or our affiliates provide in the ordinary course of our business could lead to an adverse impact on the value of the Underlying Asset.

Unwinding of hedging arrangements

The trading and/or hedging activities of us or our affiliates related to CBBCs and/or other financial instruments issued by us from time to time may have an impact on the price/level of the Underlying Asset and may trigger a Mandatory Call Event. In particular, when the Underlying Asset is trading close to the Call Price/Call Level, our unwinding activities may cause a fall or rise (as the case may be) in the trading price/level of the Underlying Asset, leading to a Mandatory Call Event as a result of such unwinding activities.

In respect of Category N CBBCs, we or our affiliates may unwind any hedging transactions entered into by us in relation to the CBBCs at any time even if such unwinding activities may trigger a Mandatory Call Event.

In respect of Category R CBBCs, before the occurrence of a Mandatory Call Event, we or our affiliates may unwind our hedging transactions relating to the CBBCs in proportion to the amount of the CBBCs we repurchase from time to time. Upon the occurrence of a Mandatory Call Event, we or our affiliates may unwind any hedging transactions in relation to the CBBCs. Such unwinding activities after the occurrence of a Mandatory Call Event may affect the trading price/level of the Underlying Asset and consequently the Residual Value for the CBBCs.

Risk relating to the legal form of the Structured Products

Each series of Structured Products will be represented by a global certificate registered in the name of HKSCC Nominees Limited (or such other nominee company as may be used by HKSCC from time to time in relation to the provision of nominee services to persons admitted for the time being by HKSCC as a participant of CCASS).

Structured Products issued in global registered form and held on your behalf within a clearing system effectively means that the evidence of your title, as well as the efficiency of ultimate delivery of the Cash Settlement Amount, will be subject to the CCASS Rules. You should be aware of the following risks:

(a) you will not receive definitive certificates where the Structured Products remain in the name of HKSCC Nominees Limited for the entire life of the Structured Products;

(b) any register that is maintained by us or on our behalf, while available for inspection by you, will not be capable of registering any interests other than that of the legal title owner, in other words, it will record at all times that the Structured Products are being held by HKSCC Nominees Limited;

(c) you will have to rely solely upon your broker/custodians and the statements you receive from such party as evidence of your interest in the investment;

(d) notices or announcements will be published on the HKEX website and/or released by HKSCC to its participants via CCASS. You will need to check the HKEX website regularly and/or rely on your brokers/custodians to obtain such notices/announcements; and

(e) following the Expiry Date and the determination by us as to the Cash Settlement Amount, our obligations to you will be duly performed by payment of the Cash Settlement Amount in accordance with the Conditions to HKSCC Nominees Limited as the "holder" of the Structured Products. HKSCC or HKSCC Nominees Limited will then distribute the received Cash Settlement Amount to the respective CCASS participants in accordance with the CCASS Rules.

Fee arrangements with brokers and conflicts of interest of brokers

We may enter into fee arrangements with brokers and/or any of its affiliates with respect to the primary market in the Structured Products. You should note that any brokers with whom we have a fee arrangement does not, and cannot be expected to, deal exclusively in the Structured Products, therefore any broker and/or its subsidiaries or affiliates may from time to time engage in transactions involving the Underlying Assets and/or the structured products of other issuers over the same Underlying Assets to which the particular series of Structured Products may relate, or other underlying assets as the case may be, for their proprietary accounts and/or for the accounts or their clients. The fact that the same broker may deal simultaneously for different clients in competing products in the market place may affect the value of the Structured Products and present certain conflicts of interests.

Effect of the combination of risk factors unpredictable

Two or more risk factors may simultaneously have an effect on the value of a series of Structured Products such that the effect of any individual risk factor may not be predictable. No assurance can be given as to the effect any combination of risk factors may have on the value of a series of Structured Products.

APPENDIX 1 — TERMS AND CONDITIONS OF WARRANTS

The following pages set out the Conditions in respect of different types of Warrants.

PART A — TERMS AND CONDITIONS OF CASH SETTLED WARRANTS OVER SINGLE EQUITIES

These Conditions will, together with the supplemental provisions contained in the relevant Supplemental Listing Document, and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Supplemental Listing Document in relation to the issue of any series of Warrants may specify other terms and conditions which shall, to the extent so specified or to the extent they are inconsistent with these Conditions, replace or modify these Conditions for the purpose of such series of Warrants.

1. Form, Status, Transfer, Title and Additional Costs and Expenses

(A) The Warrants (which expression shall, unless the context otherwise requires, include any further warrants issued pursuant to Condition 11) relating to the Shares of the Company are issued in registered form subject to and with the benefit of an instrument by way of deed poll (the "**Instrument**" as defined more fully in the relevant Supplemental Listing Document) executed by UBS AG (the "**Issuer**") acting through its London branch or any of its branches outside Switzerland as it may specify from time to time. The Warrantholders (as defined below) are entitled to the benefit of, are bound by, and are deemed to have notice of all the provisions of the Instrument. A copy of the Instrument is available for inspection at the offices of UBS Securities Asia Limited ("**Sponsor**") at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong.

The Warrants are represented by a global certificate ("**Global Certificate**") registered in the name of HKSCC Nominees Limited (or such other nominee company as may be used by Hong Kong Securities Clearing Company Limited ("**HKSCC**") from time to time in relation to the provision of nominee services to persons admitted for the time being by HKSCC as a participant of CCASS) (the "**Nominee**"). No definitive certificate will be issued. The Warrants can only be exercised by HKSCC or the Nominee.

(B) The settlement obligation of the Issuer in respect of the Warrants represents general unsecured contractual obligations of the Issuer and of no other person which rank, and will rank, equally among themselves and pari passu with all other present and future unsecured and unsubordinated contractual obligations of the Issuer, except for obligations accorded preference by mandatory provisions of applicable law.

Warrants represent general contractual obligations of the Issuer, and are not, nor is it the intention (expressed, implicit or otherwise) of the Issuer to create by the issue of warrants deposit liabilities of the Issuer or a debt obligation of any kind.

(C) Transfers of Warrants may be effected only in Board Lots or integral multiples thereof in CCASS in accordance with the General Rules of CCASS and the CCASS Operational Procedures in effect from time to time (the "**CCASS Rules**").

(D) Each person who is for the time being shown in the register kept by the Issuer in Hong Kong as the holder shall be treated by the Issuer and the Sponsor as the absolute owner and holder of the Warrants. The expression "**Warrantholder**" and "**Warrantholders**" shall be construed accordingly.

(E) Warrantholders are responsible for additional costs and expenses in connection with any exercise of the Warrants including the Exercise Expenses (as defined below) which amount shall, subject to Condition 2(B) and to the extent necessary, be payable to the Issuer and collected from the Warrantholders.

2. Warrant Rights and Exercise Expenses

(A) Every Board Lot entitles the Warrantholders, upon due exercise and upon compliance with these Conditions, in particular Condition 3, to payment of the Cash Settlement Amount (as defined below), if any.

(B) The Warrantholders will be required to pay a sum equal to all the expenses resulting from the exercise of such Warrants. To effect such payment an amount equivalent to the Exercise Expenses (defined below) shall be deducted from the Cash Settlement Amount in accordance with Condition 3(E).

(C) For the purposes of these Conditions:

"**Average Price**" means the arithmetic mean of the closing prices of one Share (as derived from the Daily Quotation Sheet of the Stock Exchange, subject to any adjustment to such closing prices as may be necessary to reflect any event as contemplated in Condition 5 such as capitalisation, rights issue, distribution or the like) in respect of each Valuation Date;

"**Board Lot**" has the meaning given to it in the relevant Supplemental Listing Document;

"**Business Day**" means a day (excluding Saturdays) on which the Stock Exchange is scheduled to open for dealings in Hong Kong and banks are open for business in Hong Kong;

"**Cash Settlement Amount**" means, for every Board Lot, an amount in the Settlement Currency calculated by the Issuer in accordance with the following formula:

(i) In the case of a series of call Warrants:

$$\text{Cash Settlement Amount per Board Lot} = \frac{\text{Entitlement x (Average Price - Exercise Price) x one Board Lot}}{\text{Number of Warrant(s) per Entitlement}}$$

(ii) In the case of a series of put Warrants:

$$\text{Cash Settlement Amount per Board Lot} = \frac{\text{Entitlement x (Exercise Price - Average Price) x one Board Lot}}{\text{Number of Warrant(s) per Entitlement}}$$

For the avoidance of doubt, if the Cash Settlement Amount is a negative figure, it shall be deemed to be zero;

"**CCASS**" means the Central Clearing and Settlement System;

"**CCASS Settlement Day**" has the meaning ascribed to the term "Settlement Day" in the CCASS Rules, subject to such modification and amendment prescribed by HKSCC from time to time;

"**Company**" means the company specified as such in the relevant Supplemental Listing Document;

"**Entitlement**" means the number specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 5;

"**Exercise Expenses**" means any charges or expenses including any taxes or duties which are incurred in respect of the exercise of a Board Lot of Warrants;

"**Exercise Price**" means the price specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 5;

"**Expiry Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**HKEX**" means Hong Kong Exchanges and Clearing Limited;

"**Listing Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Market Disruption Event**" means:

(1) the occurrence or existence on any Valuation Date during the one-half hour period that ends at the close of trading of any suspension of or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the Stock Exchange or otherwise) on the Stock Exchange in (a) the Shares; or (b) any options or futures contracts relating to the Shares if, in any such case, such suspension or limitation is, in the determination of the Issuer, material;

(2) the issuance of the tropical cyclone warning signal number 8 or above or the issuance of a "BLACK" rainstorm signal on any day which either (i) results in the Stock Exchange being closed for trading for the entire day; or (ii) results in the Stock Exchange being closed prior to its regular time for close of trading for the relevant day (for the avoidance of doubt, in the case when the Stock Exchange is scheduled to open for the morning trading session only, closed prior to its regular time for close of trading for the morning session), PROVIDED THAT there shall be no Market Disruption Event solely by reason of the Stock Exchange opening for trading later than its regular time for opening of trading on any day as a result of the tropical cyclone warning signal number 8 or above or the "BLACK" rainstorm signal having been issued; or

(3) a limitation or closure of the Stock Exchange due to any unforeseen circumstances;

"**Settlement Currency**" means the currency specified as such in the relevant Supplemental Listing Document;

"**Settlement Date**" means the third CCASS Settlement Day after the later of: (i) the Expiry Date; and (ii) the day on which the Average Price is determined in accordance with the Conditions;

"**Share**" means the share specified as such in the relevant Supplemental Listing Document;

"**Stock Exchange**" means The Stock Exchange of Hong Kong Limited; and

"**Valuation Date**" means each of the five Business Days immediately preceding the Expiry Date, provided that if the Issuer determines, in its sole discretion, that a Market Disruption Event has occurred on any Valuation Date, then that Valuation Date shall be postponed until the first succeeding Business Day on which there is no Market Disruption Event irrespective of whether that postponed Valuation Date would fall on a Business Day that is already or is deemed to be a Valuation Date. For the avoidance of doubt, in the event that a Market Disruption Event has occurred and a Valuation Date is postponed as aforesaid, the closing price of the Shares on the first succeeding Business Day will be used more than once in determining the Average Price, so that in no event shall there be less than five closing prices used to determine the Average Price.

If the postponement of the Valuation Date as aforesaid would result in the Valuation Date falling on or after the Expiry Date, then:

(a) the Business Day immediately preceding the Expiry Date (the "**Last Valuation Date**") shall be deemed to be the Valuation Date notwithstanding the Market Disruption Event; and

(b) the Issuer shall determine the closing price of the Shares on the basis of its good faith estimate of the price that would have prevailed on the Last Valuation Date but for the Market Disruption Event.

Trading in Warrants on the Stock Exchange shall cease prior to the Expiry Date in accordance with the requirements of the Stock Exchange.

Other capitalized terms shall, unless otherwise defined herein, have the meaning ascribed to them in the Base Listing Document, the relevant Supplemental Listing Document or the Global Certificate.

3. Exercise of Warrants

(A) Warrants may only be exercised in Board Lots or integral multiples thereof.

(B) The Warrants will automatically be exercised on the Expiry Date, if the Issuer determines that the Cash Settlement Amount (calculated in accordance with these Conditions) is positive (without notice being given to the Warrantholders). The Warrantholders will not be required to deliver any exercise notice and the Issuer or its agent will pay to the Warrantholders the Cash Settlement Amount (if any) in accordance with Condition 3(E).

Any Warrant which has not been automatically exercised in accordance with this Condition 3(B) shall expire immediately thereafter and all rights of the Warrantholders and obligations of the Issuer with respect to such Warrant shall cease.

(C) Any Exercise Expenses which are not determined by the Issuer on the Expiry Date and deducted from the Cash Settlement Amount prior to delivery to the Warrantholders in accordance with this Condition 3, shall be notified by the Issuer to the Warrantholders as soon as practicable after determination thereof and shall be paid by the Warrantholders to the Issuer immediately upon demand.

(D) Subject to exercise of Warrants in accordance with these Conditions, or in the event that Warrants have expired worthless, the Issuer will, with effect from the first Business Day following the Expiry Date, remove the name of each Warrantholder from the register of Warrantholders in respect of such Warrants and thereby cancel the relevant Warrants and, if applicable, cancel the Global Certificate.

(E) Upon exercise of Warrants in accordance with these Conditions, the Issuer will pay the Cash Settlement Amount minus the determined Exercise Expenses to the relevant Warrantholder. If the Cash Settlement Amount is equal to or less than the determined Exercise Expenses, no amount is payable.

The aggregate Cash Settlement Amount minus the determined aggregate Exercise Expenses shall be despatched no later than the Settlement Date, by crediting that amount, in accordance with the CCASS Rules, to the relevant bank account designated by each Warrantholder (the "**Designated Bank Account**").

If as a result of an event beyond the control of the Issuer ("**Settlement Disruption Event**"), it is not possible for the Issuer to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Warrantholder on the original Settlement Date, the Issuer shall use its reasonable endeavours to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Warrantholder as soon as reasonably practicable after the original Settlement Date. The Issuer will not be liable to the Warrantholder for any interest in respect of the amount due or any loss or damage that such Warrantholder may suffer as a result of the existence of a Settlement Disruption Event.

(F) The Issuer's obligations to pay the Cash Settlement Amount shall be discharged by payment in accordance with Condition 3(E).

4. Sponsor

(A) The Sponsor will not assume any obligation or duty to or any relationship or agency or trust for the Warrantholders.

(B) The Issuer reserves the right, subject to the appointment of a successor, at any time to vary or terminate the appointment of the initial Sponsor and to appoint another sponsor provided that it will at all times maintain a sponsor in Hong Kong for so long as the Warrants are listed on the Stock Exchange. Notice of any such termination or appointment will be given to the Warrantholders in accordance with Condition 9.

5. Adjustments

(A) *Right*s *Issues*. If and whenever the Company shall, by way of Rights (as defined below), offer new Shares for subscription at a fixed subscription price to the holders of existing Shares pro rata to existing holdings (a "**Rights Offer**"), the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Shares becomes ex-entitlement ("**Rights Issue Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

$$\text{Adjustment Component} = \frac{1 + M}{1 + (R/S) \times M}$$

E: Existing Entitlement immediately prior to the Rights Offer

S: Cum-Rights Share price being the closing price of an existing Share as derived from the Daily Quotation Sheet of the Stock Exchange on the last Business Day on which the Shares are traded on a Cum-Rights basis

R: Subscription price per new Share specified in the Rights Offer plus an amount equal to any dividends or other benefits foregone to exercise the Right

M: Number of new Share(s) (whether a whole or a fraction) per existing Share each holder thereof is entitled to subscribe

Provided that if the above formula would result in an adjustment to the Entitlement which would amount to one per cent. or less of the Entitlement immediately prior to the adjustment, then no adjustment will be made. In addition, the Issuer shall adjust the Exercise Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Exercise Price shall take effect on the Rights Issue Adjustment Date.

For the purposes of these Conditions:

"**Rights**" means the right(s) attached to each existing Share or needed to acquire one new Share (as the case may be) which are given to the holders of existing Shares to subscribe at a fixed subscription price for new Shares pursuant to the Rights Offer (whether by the exercise of one Right, a part of a Right or an aggregate number of Rights).

(B) *Bonus Issues*. If and whenever the Company shall make an issue of Shares credited as fully paid to the holders of Shares generally by way of capitalisation of profits or reserves (other than pursuant to a scrip dividend or similar scheme for the time being operated by the Company or otherwise in lieu of a cash dividend and without any payment or other consideration being made or given by such holders) (a "**Bonus Issue**") the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Shares becomes ex-entitlement ("**Bonus Issue Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

Adjustment Component = (1 + N)

E: Existing Entitlement immediately prior to the Bonus Issue

N: Number of additional Shares (whether a whole or a fraction) received by a holder of Shares for each Share held prior to the Bonus Issue

Provided that if the above formula would result in an adjustment to the Entitlement which would amount to one per cent. or less of the Entitlement immediately prior to the adjustment, then no adjustment will be made. In addition, the Issuer shall adjust the Exercise Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Exercise Price shall take effect on the Bonus Issue Adjustment Date.

(C) *Subdivisions and Consolidations*. If and whenever the Company shall subdivide its Shares or any class of its outstanding share capital comprised of the Shares into a greater number of shares (a "**Subdivision**") or consolidate the Shares or any class of its outstanding share capital comprised of the Shares into a smaller number of shares (a "**Consolidation**"), then:

(i) in the case of a Subdivision, the Entitlement in effect immediately prior thereto will be increased whereas the Exercise Price (which shall be rounded to the nearest 0.001) will be decreased in the same ratio as the Subdivision; and

(ii) in the case of a Consolidation, the Entitlement in effect immediately prior thereto will be decreased whereas the Exercise Price (which shall be rounded to the nearest 0.001) will be increased in the same ratio as the Consolidation,

in each case on the day on which the Subdivision or Consolidation (as the case may be) shall have taken effect.

(D) *Restructuring Events*. If it is announced that the Company is to or may merge or consolidate with or into any other corporation (including becoming, by agreement or otherwise, a subsidiary of or controlled by any person or corporation) (except where the Company is the surviving corporation in a merger) or that it is to or may sell or transfer all or substantially all of its assets, the rights attaching to the Warrants may in the absolute discretion of the Issuer be amended no later than the Business Day preceding the consummation of such merger, consolidation, sale or transfer (each a "**Restructuring Event**") (as determined by the Issuer in its absolute discretion) so that the Warrants shall, after such Restructuring Event, relate to the number of shares of the corporation(s) resulting from or surviving such Restructuring Event or other securities ("**Substituted Securities**") and/or cash offered in substitution for the affected Shares, as the case may be, to which the holder of such number of Shares to which the Warrants related immediately before such Restructuring Event would have been entitled upon such Restructuring Event, and thereafter the provisions hereof shall apply to such Substituted Securities, provided that any

Substituted Securities may, in the absolute discretion of the Issuer, be deemed to be replaced by an amount in the relevant currency equal to the market value or, if no market value is available, fair value, of such Substituted Securities in each case as determined by the Issuer as soon as practicable after such Restructuring Event is effected. For the avoidance of doubt, any remaining Shares shall not be affected by this paragraph and, where cash is offered in substitution for Shares or is deemed to replace Substituted Securities as described above, references in these Conditions to the Shares shall include any such cash.

(E) *Cash Distribution*. No adjustment will be made for an ordinary cash dividend (whether or not it is offered with a scrip alternative) ("**Ordinary Dividend**"). For any other forms of cash distribution ("**Cash Distribution**") announced by the Company, such as a cash bonus, special dividend or extraordinary dividend, no adjustment will be made unless the value of the Cash Distribution accounts for 2 per cent. or more of the Share's closing price on the day of announcement by the Company.

If and whenever the Company shall make a Cash Distribution credited as fully paid to the holders of Shares generally, the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Shares becomes ex-entitlement in respect of the relevant Cash Distribution ("**Distribution Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

$$\text{Adjustment Component} = \frac{S - OD}{S - OD - CD}$$

E: The existing Entitlement immediately prior to the Cash Distribution

S: Cum-Cash Distribution Share price being the closing price of an existing Share as derived from the Daily Quotation Sheet of the Stock Exchange on the last Business Day on which the Shares are traded on a cum-Cash Distribution basis

CD: The Cash Distribution per Share

OD: The Ordinary Dividend per Share, provided that the Ordinary Dividend and the Cash Distribution have the same ex-entitlement date. For avoidance of doubt, the OD shall be zero if the Ordinary Dividend and the Cash Distribution have different ex-entitlement dates

In addition, the Issuer shall adjust the Exercise Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Exercise Price shall take effect on the Distribution Adjustment Date.

(F) *Other Adjustments*. Without prejudice to and notwithstanding any prior adjustment(s) made pursuant to the applicable Conditions, the Issuer may (but shall not be obliged to) make such other adjustments to the terms and conditions of the Warrants as appropriate where any event (including the events as contemplated in the applicable Conditions) occurs and irrespective of, in substitution for, or in addition to the provisions contemplated in the applicable Conditions, provided that such adjustment is:

(i) not materially prejudicial to the interests of the Warrantholders generally (without considering the circumstances of any individual Warrantholder or the tax or other consequences of such adjustment in any particular jurisdiction); or

(ii) determined by the Issuer in good faith to be appropriate and commercially reasonable.

(G) *Notice of Adjustments*. All determinations made by the Issuer pursuant hereto will be conclusive and binding on the Warrantholders. The Issuer will give, or procure that there is given, notice as soon as practicable of any adjustment and of the date from which such adjustment is effective by publication in accordance with Condition 9.

6. Purchase

The Issuer or any of its subsidiaries may at any time purchase Warrants at any price in the open market or by tender or by private treaty. Any Warrants so purchased may be held or resold or surrendered for cancellation.

7. Global Certificate

A Global Certificate representing the Warrants will be deposited with CCASS in the name of HKSCC Nominees Limited. The Global Certificate must be executed manually on behalf of the Issuer by authorised person(s) or attorney(s) of the Issuer.

8. Meetings of Warrantholders and Modification

(A) *Meetings of Warrantholders*. The Instrument contains provisions for convening meetings of the Warrantholders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution (as defined in the Instrument) of a modification of the provisions of the Warrants or of the Instrument.

Any resolution to be passed in a meeting of the Warrantholders shall be decided by poll. A meeting may be convened by the Issuer or by Warrantholders holding not less than 10 per cent. of the Warrants for the time being remaining unexercised. The quorum at any such meeting for passing an Extraordinary Resolution will be two or more persons holding or representing not less than 25 per cent. of the Warrants for the time being remaining unexercised, or at any adjourned meeting two or more persons being or representing Warrantholders whatever the number of Warrants so held or represented.

A resolution will be an Extraordinary Resolution when it has been passed at a duly convened meeting by not less than three-quarters of the votes cast by such Warrantholders who, being entitled to do so, vote in person or by proxy.

An Extraordinary Resolution passed at any meeting of the Warrantholders shall be binding on all the Warrantholders, whether or not they are present at the meeting.

Resolutions can be passed in writing without a meeting of the Warrantholders being held if passed unanimously.

(B) *Modification*. The Issuer may, without the consent of the Warrantholders, effect any modification of the terms and conditions of the Warrants or the Instrument which, in the opinion of the Issuer, is (i) not materially prejudicial to the interests of the Warrantholders generally (without considering the circumstances of any individual Warrantholder or the tax or other consequences of such modification in any particular jurisdiction); (ii) of a formal, minor or technical nature; (iii) made to correct a manifest error; or (iv) necessary in order to comply with mandatory provisions of the laws or regulations of Hong Kong. Any such modification shall be binding on the Warrantholders and shall be notified to them by the Issuer as soon as practicable thereafter in accordance with Condition 9.

9. Notices

All notices to the Warrantholders will be validly given if published in English and in Chinese on the HKEX website. In such circumstances, the Issuer shall not be required to despatch copies of the notice to the Warrantholders.

10. Liquidation

In the event of a liquidation or dissolution of the Company or the appointment of a liquidator, receiver or administrator or analogous person under any applicable law in respect of the whole or substantially the whole of its undertaking, property or assets, all unexercised Warrants will lapse and shall cease to be valid for any purpose. In the case of voluntary liquidation, the unexercised Warrants will lapse and shall cease to be valid on the effective date of the relevant resolution and, in the case of an involuntary liquidation or dissolution, on the date of the relevant court order or, in the case of the appointment of a liquidator or receiver or administrator or analogous person under any applicable law in respect of the whole or substantially the whole of its undertaking, property or assets, on the date when such appointment is effective but subject (in any such case) to any contrary mandatory requirement of law.

11. Further Issues

The Issuer shall be at liberty from time to time, without the consent of the Warrantholders, to create and issue further warrants so as to form a single series with the Warrants.

12. Delisting

(A) If at any time the Shares cease to be listed on the Stock Exchange, the Issuer shall give effect to these Conditions in such manner and make such adjustments and amendments to the rights attaching to the Warrants as it shall, in its absolute discretion, consider appropriate to ensure, so far as it is reasonably able to do so, that the interests of the Warrantholders generally are not materially prejudiced as a consequence of such delisting (without considering the circumstances of any individual Warrantholder or the tax or other consequences that may result in any particular jurisdiction).

(B) Without prejudice to the generality of Condition 12(A), where the Shares are, or, upon the delisting, become, listed on any other stock exchange, these Conditions may, in the absolute discretion of the Issuer, be amended to the extent necessary to allow for the substitution of that other stock exchange in place of the Stock Exchange and the Issuer may, without the consent of the Warrantholders, make such adjustments to the entitlements of the Warrantholders on exercise (including, if appropriate, by converting foreign currency amounts at prevailing market rates into the relevant currency) as may be appropriate in the circumstances.

(C) The Issuer shall determine, in its absolute discretion, any adjustment or amendment and its determination shall be conclusive and binding on the Warrantholders save in the case of manifest error. Notice of any adjustments or amendments shall be given to the Warrantholders in accordance with Condition 9 as soon as practicable after they are determined.

13. Illegality or Impracticability

The Issuer is entitled to terminate the Warrants if it determines in good faith and in a commercially reasonable manner that, for reasons beyond its control, it has become or it will become illegal or impracticable:

(i) for it to perform its obligations under the Warrants in whole or in part as a result of:

(a) the adoption of, or any change in, any relevant law or regulation (including any tax law); or

(b) the promulgation of, or any change in, the interpretation by any court, tribunal, governmental, administrative, legislative, regulatory or judicial authority or power with competent jurisdiction of any relevant law or regulation (including any tax law),

(each of (a) and (b), a "**Change in Law Event**"); or

(ii) for it or any of its affiliates to maintain the Issuer's hedging arrangements with respect to the Warrants due to a Change in Law Event.

Upon the occurrence of a Change in Law Event, the Issuer will, if and to the extent permitted by the applicable law or regulation, pay to each Warrantholder a cash amount that the Issuer determines in good faith and in a commercially reasonable manner to be the fair market value in respect of each Warrant held by such Warrantholder immediately prior to such termination (ignoring such illegality or impracticability) less the cost to the Issuer of unwinding any related hedging arrangement as determined by the Issuer in its sole and absolute discretion. Payment will be made to each Warrantholder in such manner as shall be notified to the Warrantholder in accordance with Condition 9.

14. Good Faith and Commercially Reasonable Manner

Any exercise of discretion by the Issuer under these Conditions will be made in good faith and in a commercially reasonable manner.

15. Governing Law

The Warrants and the Instrument are governed by and construed in accordance with the laws of the Hong Kong Special Administrative Region of the People's Republic of China ("**Hong Kong**"). The Issuer and each Warrantholder (by its purchase of the Warrants) submit for all purposes in connection with the Warrants and the Instrument to the non-exclusive jurisdiction of the courts of Hong Kong.

16. Contracts (Rights of Third Parties) Ordinance

A person who is not a party to these Conditions has no right under the Contracts (Rights of Third Parties) Ordinance (Cap. 623 of the Laws of Hong Kong) to enforce or to enjoy the benefit of any term of the Warrants.

17. Language

A Chinese translation of these Conditions will be made available for collection during normal office hours from the Sponsor at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. In the event of any inconsistency between the Chinese translation and the English version of these Conditions, the English version of these Conditions shall prevail.

18. Prescription

Claims against the Issuer for payment of any amount in respect of the Warrants will become void unless made within ten years of the Expiry Date and thereafter, any sums payable in respect of such Warrants shall be forfeited and shall revert to the Issuer.

Sponsor:
UBS Securities Asia Limited
52nd Floor
Two International Finance Centre
8 Finance Street, Central
Hong Kong

PART B — TERMS AND CONDITIONS OF CASH SETTLED INDEX WARRANTS

These Conditions will, together with the supplemental provisions contained in the relevant Supplemental Listing Document, and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Supplemental Listing Document in relation to the issue of any series of Warrants may specify other terms and conditions which shall, to the extent so specified or to the extent they are inconsistent with these Conditions, replace or modify these Conditions for the purpose of such series of Warrants.

1. Form, Status, Transfer, Title and Additional Costs and Expenses

(A) The Warrants (which expression shall, unless the context otherwise requires, include any further warrants issued pursuant to Condition 10) relating to the Index are issued in registered form subject to and with the benefit of an instrument by way of deed poll (the "**Instrument**" as defined more fully in the relevant Supplemental Listing Document) executed by UBS AG (the "**Issuer**") acting through its London branch or any of its branches outside Switzerland as it may specify from time to time. The Warrantholders (as defined below) are entitled to the benefit of, are bound by, and are deemed to have notice of all the provisions of the Instrument. A copy of the Instrument is available for inspection at UBS Securities Asia Limited ("**Sponsor**") at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong.

The Warrants are represented by a global certificate ("**Global Certificate**") registered in the name of HKSCC Nominees Limited (or such other nominee company as may be used by Hong Kong Securities Clearing Company Limited ("**HKSCC**") from time to time in relation to the provision of nominee services to persons admitted for the time being by HKSCC as a participant of CCASS) (the "**Nominee**"). No definitive certificate will be issued. The Warrants can only be exercised by HKSCC or the Nominee.

(B) The settlement obligation of the Issuer in respect of the Warrants represents general unsecured contractual obligations of the Issuer and of no other person which rank, and will rank, equally among themselves and pari passu with all other present and future unsecured and unsubordinated contractual obligations of the Issuer, except for obligations accorded preference by mandatory provisions of applicable law.

Warrants represent general contractual obligations of the Issuer, and are not, nor is it the intention (expressed, implicit or otherwise) of the Issuer to create by the issue of warrants deposit liabilities of the Issuer or a debt obligation of any kind.

(C) Transfers of Warrants may be effected only in Board Lots or integral multiples thereof in CCASS in accordance with the General Rules of CCASS and the CCASS Operational Procedures in effect from time to time (the "**CCASS Rules**").

(D) Each person who is for the time being shown in the register kept by the Issuer in Hong Kong as the holder shall be treated by the Issuer and the Sponsor as the absolute owner and holder of the Warrants. The expressions "**Warrantholder**" and "**Warrantholders**" shall be construed accordingly.

(E) Warrantholders are responsible for additional costs and expenses in connection with any exercise of the Warrants including the Exercise Expenses (as defined below) which amount shall, subject to Condition 2(B) and to the extent necessary, be payable to the Issuer and collected from the Warrantholders.

2. Warrant Rights and Exercise Expenses

(A) Every Board Lot entitles the Warrantholders, upon due exercise and upon compliance with these Conditions, in particular Condition 3, to payment of the Cash Settlement Amount (as defined below), if any.

(B) The Warrantholders will be required to pay a sum equal to all the expenses resulting from the exercise of such Warrants. To effect such payment an amount equivalent to the Exercise Expenses (defined below) shall be deducted from the Cash Settlement Amount in accordance with Condition 3(E).

(C) For the purposes of these Conditions:

"**Board Lot**" has the meaning given to it in the relevant Supplemental Listing Document;

"**Business Day**" means a day (excluding Saturdays) on which the Stock Exchange is scheduled to open for dealings in Hong Kong and banks are open for business in Hong Kong;

"**Cash Settlement Amount**" means, for every Board Lot, an amount calculated by the Issuer in accordance with the following formula (and, if appropriate, either (i) converted (if applicable) into the Settlement Currency at the Exchange Rate or, as the case may be, (ii) converted into the Interim Currency at the First Exchange Rate and then (if applicable) converted into Settlement Currency at the Second Exchange Rate):

(i) In the case of a series of call Warrants:

$$\text{Cash Settlement Amount per Board Lot} = \frac{(\text{Closing Level - Strike Level}) \text{ x one Board Lot x Index Currency Amount}}{\text{Divisor}}$$

(ii) In the case of a series of put Warrants:

$$\text{Cash Settlement Amount per Board Lot} = \frac{(\text{Strike Level - Closing Level}) \text{ x one Board Lot x Index Currency Amount}}{\text{Divisor}}$$

For the avoidance of doubt, if the Cash Settlement Amount is a negative figure, it shall be deemed to be zero;

"**CCASS**" means the Central Clearing and Settlement System;

"**CCASS Settlement Day**" has the meaning ascribed to the term "Settlement Day" in the CCASS Rules, subject to such modification and amendment prescribed by HKSCC from time to time;

"**Closing Level**" means the level specified as such in the relevant Supplemental Listing Document subject to any adjustment in accordance with Condition 5;

"**Divisor**" means the number specified as such in the relevant Supplemental Listing Document;

"**Exchange Rate**" means the rate specified as such in the relevant Supplemental Listing Document;

"**Exercise Expenses**" means any charges or expenses including any taxes or duties which are incurred in respect of the exercise of a Board Lot of Warrants;

"**Expiry Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**First Exchange Rate**" means the rate specified as such in the relevant Supplemental Listing Document;

"**HKEX**" means Hong Kong Exchanges and Clearing Limited;

"**Index**" means the index specified as such in the relevant Supplemental Listing Document;

"**Index Business Day**" means any day on which the Index Exchange is scheduled to open for trading for its regular trading sessions;

"**Index Compiler**" means the index compiler specified as such in the relevant Supplemental Listing Document;

"**Index Currency Amount**" has the meaning given to it in the relevant Supplemental Listing Document;

"**Index Exchange**" means the index exchange specified as such in the relevant Supplemental Listing Document;

"**Interim Currency**" means the currency specified in the relevant Supplemental Listing Document;

"**Listing Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Market Disruption Event**" means:

(i) the occurrence or existence, on the Valuation Date during the one-half hour period that ends at the close of trading on the Index Exchange, of any of:

(1) the suspension or material limitation of the trading of a material number of constituent securities that comprise the Index;

(2) the suspension or material limitation of the trading of options or futures contracts relating to the Index on any exchanges on which such contracts are traded; or

(3) the imposition of any exchange controls in respect of any currencies involved in determining the Cash Settlement Amount.

For the purposes of this paragraph (i), (a) the limitation of the number of hours or days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of any relevant exchange, and (b) a limitation on trading imposed by reason of the movements in price exceeding the levels permitted by any relevant exchange will constitute a Market Disruption Event;

(ii) where the Index Exchange is the Stock Exchange, the issuance of the tropical cyclone warning signal number 8 or above or the issuance of a "BLACK" rainstorm signal on any day which either (i) results in the Stock Exchange being closed for trading for the entire day; or (ii) results in the Stock Exchange being closed prior to its regular time for close of trading for the relevant day (for the avoidance of doubt, in the case when the Stock Exchange is scheduled to open for the morning trading session only, closed prior to its regular time for close of trading for the morning session), PROVIDED THAT there shall be no Market Disruption Event solely by reason of the Stock Exchange opening for trading later than its regular time for opening of trading on any day as a result of the tropical cyclone warning signal number 8 or above or the "BLACK" rainstorm signal having been issued;

(iii) a limitation or closure of the Index Exchange due to any unforeseen circumstances; or

(iv) any circumstances beyond the control of the Issuer in which the Closing Level or, if applicable, the Exchange Rate, the First Exchange Rate or the Second Exchange Rate (as the case may be) cannot be determined by the Issuer in the manner set out in these Conditions or in such other manner as the Issuer considers appropriate at such time after taking into account all the relevant circumstances.

"**Second Exchange Rate**" means the rate specified as such in the relevant Supplemental Listing Document;

"**Settlement Currency**" means the currency specified as such in the relevant Supplemental Listing Document;

"**Settlement Date**" means the third CCASS Settlement Day after the later of: (i) the Expiry Date; and (ii) the day on which the Closing Level is determined in accordance with the Conditions;

"**Stock Exchange**" means The Stock Exchange of Hong Kong Limited;

"**Strike Level**" means the level specified as such in the relevant Supplemental Listing Document; and

"**Valuation Date**" means the date specified in the relevant Supplemental Listing Document.

Trading in Warrants on the Stock Exchange shall cease prior to the Expiry Date in accordance with the requirements of the Stock Exchange.

Other capitalised terms shall, unless otherwise defined herein, bear the meaning ascribed to them in the Base Listing Document, the relevant Supplemental Listing Document or the Global Certificate.

3. Exercise of Warrants

(A) Warrants may only be exercised in Board Lots or integral multiples thereof.

(B) The Warrants will automatically be exercised on the Expiry Date, if the Issuer determines that the Cash Settlement Amount (calculated in accordance with these Conditions) is positive (without notice being given to the Warrantholders). The Warrantholders will not be required to deliver any exercise notice and the Issuer or its agent will pay to the Warrantholders the Cash Settlement Amount (if any) in accordance with Condition 3(E).

Any Warrant which has not been automatically exercised in accordance with this Condition 3(B) shall expire immediately thereafter and all rights of the Warrantholders and obligations of the Issuer with respect to such Warrant shall cease.

(C) Any Exercise Expenses which are not determined by the Issuer on the Expiry Date and deducted from the Cash Settlement Amount prior to delivery to the Warrantholders in accordance with this Condition 3, shall be notified by the Issuer to the Warrantholders as soon as practicable after determination thereof and shall be paid by the Warrantholders to the Issuer immediately upon demand.

(D) Subject to exercise of Warrants in accordance with these Conditions, or in the event that Warrants have expired worthless, the Issuer will, with effect from the first Business Day following the Expiry Date, remove the name of each Warrantholder from the register of Warrantholders in respect of such Warrants and thereby cancel the relevant Warrants and, if applicable, cancel the Global Certificate.

(E) Upon exercise of Warrants in accordance with these Conditions, the Issuer will pay the Cash Settlement Amount minus the determined Exercise Expenses to the relevant Warrantholder. If the Cash Settlement Amount is equal to or less than the determined Exercise Expenses, no amount is payable.

The aggregate Cash Settlement Amount minus the determined aggregate Exercise Expenses shall be despatched no later than the Settlement Date, by crediting that amount, in accordance with the CCASS Rules, to the relevant bank account designated by a Warrantholder (the "**Designated Bank Account**").

If as a result of an event beyond the control of the Issuer ("**Settlement Disruption Event**"), it is not possible for the Issuer to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of a Warrantholder on the original Settlement Date, the Issuer shall use its reasonable endeavours to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Warrantholder as soon as reasonably practicable after the original Settlement Date. The Issuer will not be liable to the Warrantholder for any interest in respect of the amount due or any loss or damage that such Warrantholder may suffer as a result of the existence of a Settlement Disruption Event.

If the Issuer determines, in its sole discretion, that a Market Disruption Event has occurred on the Valuation Date, then the Issuer shall determine the Closing Level on the basis of its good faith estimate of the Closing Level that would have prevailed on that day but for the occurrence of the Market Disruption Event provided that the Issuer, if applicable, may, but shall not be obliged to, determine such Closing Level by having regard to the manner in which futures contracts relating to the Index are calculated.

(F) The Issuer's obligations to pay the Cash Settlement Amount shall be discharged by payment in accordance with Condition 3(E).

4. Sponsor

(A) The Sponsor will not assume any obligation or duty to or any relationship or agency or trust for the Warrantholders.

(B) The Issuer reserves the right, subject to the appointment of a successor, at any time to vary or terminate the appointment of the initial Sponsor and to appoint another agent provided that it will at all times maintain a sponsor in Hong Kong for so long as the Warrants are listed on the Stock Exchange. Notice of any such termination or appointment will be given to the Warrantholders in accordance with Condition 9.

5. Adjustments to the Index

(A) *Successor Index Compiler Calculates and Reports Index.* If the Index is (i) not calculated and announced by the Index Compiler but is calculated and published by a successor to the Index Compiler (the "**Successor Index Compiler**") acceptable to the Issuer or (ii) replaced by a successor index using, in the determination of the Issuer, the same or a substantially similar formula for and method of calculation as used in the calculation of the Index, then the Index will be deemed to be the index so calculated and announced by the Successor Index Compiler or that successor index, as the case may be.

(B) *Modification and Cessation of Calculation of Index.* If (i) on or prior to the Valuation Date the Index Compiler or (if applicable) the Successor Index Compiler makes a material change in the formula for or the method of calculating the Index or in any other way materially modifies the Index (other than a modification prescribed in that formula or method to maintain the Index in the event of changes in constituent securities, contracts or commodities and other routine events), or (ii) on the Valuation Date the Index Compiler or (if applicable) the Successor Index

Compiler fails to calculate and publish the Index (other than as a result of a Market Disruption Event), then the Issuer shall determine the Closing Level using, in lieu of a published level for the Index, the level for the Index as at the Valuation Date as determined by the Issuer in accordance with the formula for and method of calculating the Index last in effect prior to that change or failure, but using only those securities, contracts or commodities that comprised the Index immediately prior to that change or failure (other than those securities that have since ceased to be listed on the relevant exchange).

(C) *Other Adjustments*. Without prejudice to and notwithstanding any prior adjustment(s) made pursuant to the applicable Conditions, the Issuer may (but shall not be obliged to) make such other adjustments to the terms and conditions of the Warrants as appropriate where any event (including the events as contemplated in the applicable Conditions) occurs and irrespective of, in substitution for, or in addition to the provisions contemplated in the applicable Conditions, provided that such adjustment is:

(i) not materially prejudicial to the interests of the Warrantholders generally (without considering the circumstances of any individual Warrantholder or the tax or other consequences of such adjustment in any particular jurisdiction); or

(ii) determined by the Issuer in good faith to be appropriate and commercially reasonable.

(D) *Notice of Adjustments*. All determinations made by the Issuer pursuant hereto will be conclusive and binding on the Warrantholders. The Issuer will give, or procure that there is given, notice as soon as practicable of any adjustment and of the date from which such adjustment is effective by publication in accordance with Condition 9.

6. Purchase

The Issuer or any of its subsidiaries may at any time purchase Warrants at any price in the open market or by tender or by private treaty. Any Warrants so purchased may be held or resold or surrendered for cancellation.

7. Global Certificate

A Global Certificate representing the Warrants will be deposited with CCASS in the name of HKSCC Nominees Limited. The Global Certificate must be executed manually on behalf of the Issuer by authorised officer(s) or attorney(s) of the Issuer.

8. Meetings of Warrantholders and Modification

(A) *Meetings of Warrantholders*. The Instrument contains provisions for convening meetings of the Warrantholders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution (as defined in the Instrument) of a modification of the provisions of the Warrants or of the Instrument.

Any resolution to be passed in a meeting of the Warrantholders shall be decided by poll. Such a meeting may be convened by the Issuer or by Warrantholders holding not less than 10 per cent. of the Warrants for the time being remaining unexercised. The quorum at any such meeting for passing an Extraordinary Resolution will be two or more persons holding or representing not less than 25 per cent. of the Warrants for the time being remaining unexercised, or at any adjourned meeting two or more persons being or representing Warrantholders whatever the number of Warrants so held or represented.

A resolution will be an Extraordinary Resolution when it has been passed at a duly convened meeting by not less than three-quarters of the votes cast by such Warrantholders who, being entitled to do so, vote in person or by proxy.

An Extraordinary Resolution passed at any meeting of the Warrantholders shall be binding on all the Warrantholders, whether or not they are present at the meeting.

Resolutions can be passed in writing without a meeting of the Warrantholders being held if passed unanimously.

(B) *Modification*. The Issuer may, without the consent of the Warrantholders, effect any modification of the terms and conditions of the Warrants or the Instrument which, in the opinion of the Issuer, is (i) not materially prejudicial to the interests of the Warrantholders generally (without considering the circumstances of any individual Warrantholder or the tax or other consequences of such modification in any particular jurisdiction); (ii) of a formal, minor or technical nature; (iii) made to correct a manifest error; or (iv) necessary in order to comply with mandatory provisions of the laws or regulations of Hong Kong. Any such modification shall be binding on the Warrantholders and shall be notified to them by the Issuer as soon as practicable thereafter in accordance with Condition 9.

9. Notices

All notices to the Warrantholders will be validly given if published in English and in Chinese on the HKEX website. In such circumstances, the Issuer shall not be required to despatch copies of the notice to the Warrantholders.

10. Further Issues

The Issuer shall be at liberty from time to time, without the consent of the Warrantholders, to create and issue further warrants so as to form a single series with the Warrants.

11. Illegality or Impracticability

The Issuer is entitled to terminate the Warrants if it determines in good faith and in a commercially reasonable manner that, for reasons beyond its control, it has become or it will become illegal or impracticable:

(i) for it to perform its obligations under the Warrants in whole or in part as a result of:

(a) the adoption of, or any change in, any relevant law or regulation (including any tax law); or

(b) the promulgation of, or any change in, the interpretation by any court, tribunal, governmental, administrative, legislative, regulatory or judicial authority or power with competent jurisdiction of any relevant law or regulation (including any tax law),

(each of (a) and (b), a "**Change in Law Event**"); or

(ii) for it or any of its affiliates to maintain the Issuer's hedging arrangements with respect to the Warrants due to a Change in Law Event.

Upon the occurrence of a Change in Law Event, the Issuer will, if and to the extent permitted by the applicable law or regulation, pay to each Warrantholder a cash amount that the Issuer determines in good faith and in a commercially reasonable manner to be the fair market value in respect of each Warrant held by such Warrantholder immediately prior to such termination (ignoring such illegality or impracticability) less the cost to the Issuer of unwinding any related hedging arrangement as determined by the Issuer in its sole and absolute discretion. Payment will be made to each Warrantholder in such manner as shall be notified to the Warrantholder in accordance with Condition 9.

12. Good Faith and Commercially Reasonable Manner

Any exercise of discretion by the Issuer under these Conditions will be made in good faith and in a commercially reasonable manner.

13. Governing Law

The Warrants and the Instrument are governed by and construed in accordance with the laws of the Hong Kong Special Administrative Region of the People's Republic of China ("**Hong Kong**"). The Issuer and each Warrantholder (by its purchase of the Warrants) submit for all purposes in connection with the Warrants and the Instrument to the non-exclusive jurisdiction of the courts of Hong Kong.

14. Contracts (Rights of Third Parties) Ordinance

A person who is not a party to these Conditions has no right under the Contracts (Rights of Third Parties) Ordinance (Cap. 623 of the Laws of Hong Kong) to enforce or to enjoy the benefit of any term of the Warrants.

15. Language

A Chinese translation of these Conditions will be made available for collection during normal office hours from the Sponsor at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. In the event of any inconsistency between the Chinese translation and the English version of these Conditions, the English version of these Conditions shall prevail.

16. Prescription

Claims against the Issuer for payment of any amount in respect of the Warrants will become void unless made within ten years of the Expiry Date and thereafter, any sums payable in respect of such Warrants shall be forfeited and shall revert to the Issuer.

Sponsor:
UBS Securities Asia Limited
52nd Floor
Two International Finance Centre
8 Finance Street, Central
Hong Kong

PART C — TERMS AND CONDITIONS OF CASH SETTLED WARRANTS OVER SINGLE UNIT TRUSTS

These Conditions will, together with the supplemental provisions contained in the relevant Supplemental Listing Document, and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Supplemental Listing Document in relation to the issue of any series of Warrants may specify other terms and conditions which shall, to the extent so specified or to the extent they are inconsistent with these Conditions, replace or modify these Conditions for the purpose of such series of Warrants.

1. Form, Status, Transfer, Title and Additional Costs and Expenses

(A) The Warrants (which expression shall, unless the context otherwise requires, include any further warrants issued pursuant to Condition 11) relating to the Units of the Trust are issued in registered form subject to and with the benefit of an instrument by way of deed poll (the "**Instrument**" as defined more fully in the relevant Supplemental Listing Document) executed by UBS AG (the "**Issuer**") acting through its London branch or any of its branches outside Switzerland as it may specify from time to time. The Warrantholders (as defined below) are entitled to the benefit of, are bound by, and are deemed to have notice of all the provisions of the Instrument. A copy of the Instrument is available for inspection at the offices of UBS Securities Asia Limited ("**Sponsor**") at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong.

The Warrants are represented by a global certificate ("**Global Certificate**") registered in the name of HKSCC Nominees Limited (or such other nominee company as may be used by Hong Kong Securities Clearing Company Limited ("**HKSCC**") from time to time in relation to the provision of nominee services to persons admitted for the time being by HKSCC as a participant of CCASS) (the "**Nominee**"). No definitive certificate will be issued. The Warrants can only be exercised by HKSCC or the Nominee.

(B) The settlement obligation of the Issuer in respect of the Warrants represents general unsecured contractual obligations of the Issuer and of no other person which rank, and will rank, equally among themselves and pari passu with all other present and future unsecured and unsubordinated contractual obligations of the Issuer, except for obligations accorded preference by mandatory provisions of applicable law.

Warrants represent general contractual obligations of the Issuer, and are not, nor is it the intention (expressed, implicit or otherwise) of the Issuer to create by the issue of warrants deposit liabilities of the Issuer or a debt obligation of any kind.

(C) Transfers of Warrants may be effected only in Board Lots or integral multiples thereof in CCASS in accordance with the General Rules of CCASS and the CCASS Operational Procedures in effect from time to time (the "**CCASS Rules**").

(D) Each person who is for the time being shown in the register kept by the Issuer in Hong Kong as the holder shall be treated by the Issuer and the Sponsor as the absolute owner and holder of the Warrants. The expression "**Warrantholder**" and "**Warrantholders**" shall be construed accordingly.

(E) Warrantholders are responsible for additional costs and expenses in connection with any exercise of the Warrants including the Exercise Expenses (as defined below) which amount shall, subject to Condition 2(B) and to the extent necessary, be payable to the Issuer and collected from the Warrantholders.

2. Warrant Rights and Exercise Expenses

(A) Every Board Lot entitles the Warrantholders, upon due exercise and upon compliance with these Conditions, in particular Condition 3, to payment of the Cash Settlement Amount (as defined below), if any.

(B) The Warrantholders will be required to pay a sum equal to all the expenses resulting from the exercise of such Warrants. To effect such payment an amount equivalent to the Exercise Expenses (defined below) shall be deducted from the Cash Settlement Amount in accordance with Condition 3(E).

(C) For the purposes of these Conditions:

"**Average Price**" means the arithmetic mean of the closing prices of one Unit (as derived from the Daily Quotation Sheet of the Stock Exchange, subject to any adjustment to such closing prices as may be necessary to reflect event as contemplated in Condition 5 such as capitalisation, rights issue, distribution or the like) in respect of each Valuation Date;

"**Board Lot**" has the meaning given to it in the relevant Supplemental Listing Document;

"**Business Day**" means a day (excluding Saturdays) on which the Stock Exchange is scheduled to open for dealings in Hong Kong and banks are open for business in Hong Kong;

"**Cash Settlement Amount**" means, for every Board Lot, an amount in the Settlement Currency calculated by the Issuer in accordance with the following formula:

(i) In the case of a series of call Warrants:

$$\text{Cash Settlement Amount per Board Lot} = \frac{\text{Entitlement x (Average Price - Exercise Price) x one Board Lot}}{\text{Number of Warrant(s) per Entitlement}}$$

(ii) In the case of a series of put Warrants:

$$\text{Cash Settlement Amount per Board Lot} = \frac{\text{Entitlement x (Exercise Price - Average Price) x one Board Lot}}{\text{Number of Warrant(s) per Entitlement}}$$

For the avoidance of doubt, if the Cash Settlement Amount is a negative figure, it shall be deemed to be zero;

"**CCASS**" means the Central Clearing and Settlement System;

"**CCASS Settlement Day**" has the meaning ascribed to the term "Settlement Day" in the CCASS Rules, subject to such modification and amendment prescribed by HKSCC from time to time;

"**Entitlement**" means the number specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 5;

"**Exercise Expenses**" means any charges or expenses including any taxes or duties which are incurred in respect of the exercise of a Board Lot of Warrants;

"**Exercise Price**" means the price specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 5;

"**Expiry Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**HKEX**" means Hong Kong Exchanges and Clearing Limited;

"**Listing Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Market Disruption Event**" means:

(1) the occurrence or existence on any Valuation Date during the one-half hour period that ends at the close of trading of any suspension of or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the Stock Exchange or otherwise) on the Stock Exchange in (a) the Units; or (b) any options or futures contracts relating to the Units if, in any such case, such suspension or limitation is, in the determination of the Issuer, material;

(2) the issuance of the tropical cyclone warning signal number 8 or above or the issuance of a "BLACK" rainstorm signal on any day which either (i) results in the Stock Exchange being closed for trading for the entire day; or (ii) results in the Stock Exchange being closed prior to its regular time for close of trading for the relevant day (for the avoidance of doubt, in the case when the Stock Exchange is scheduled to open for the morning trading session only, closed prior to its regular time for close of trading for the morning session), PROVIDED THAT there shall be no Market Disruption Event solely by reason of the Stock Exchange opening for trading later than its regular time for opening of trading on any day as a result of the tropical cyclone warning signal number 8 or above or the "BLACK" rainstorm signal having been issued; or

(3) a limitation or closure of the Stock Exchange due to any unforeseen circumstances;

"**Settlement Currency**" means the currency specified as such in the relevant Supplemental Listing Document;

"**Settlement Date**" means the third CCASS Settlement Day after the later of: (i) the Expiry Date; and (ii) the day on which the Average Price is determined in accordance with the Conditions;

"**Stock Exchange**" means The Stock Exchange of Hong Kong Limited;

"**Trust**" means the trust specified as such in the relevant Supplemental Listing Document;

"**Unit**" means the unit specified as such in the relevant Supplemental Listing Document; and

"**Valuation Date**" means each of the five Business Days immediately preceding the Expiry Date, provided that if the Issuer determines, in its sole discretion, that a Market Disruption Event has occurred on any Valuation Date, then that Valuation Date shall be postponed until the first succeeding Business Day on which there is no Market Disruption Event irrespective of whether that postponed Valuation Date would fall on a Business Day that is already or is deemed to be a Valuation Date. For the avoidance of doubt, in the event that a Market Disruption Event has occurred and a Valuation Date is postponed as aforesaid, the closing price of the Units on the first succeeding Business Day will be used more than once in determining the Average Price, so that in no event shall there be less than five closing prices used to determine the Average Price.

If the postponement of the Valuation Date as aforesaid would result in the Valuation Date falling on or after the Expiry Date, then:

(a) the Business Day immediately preceding the Expiry Date (the "**Last Valuation Date**") shall be deemed to be the Valuation Date notwithstanding the Market Disruption Event; and

(b) the Issuer shall determine the closing price of the Units on the basis of its good faith estimate of the price that would have prevailed on the Last Valuation Date but for the Market Disruption Event.

Trading in Warrants on the Stock Exchange shall cease prior to the Expiry Date in accordance with the requirements of the Stock Exchange.

Other capitalized terms shall, unless otherwise defined herein, have the meaning ascribed to them in the Base Listing Document, the relevant Supplemental Listing Document or the Global Certificate.

3. Exercise of Warrants

(A) Warrants may only be exercised in Board Lots or integral multiples thereof.

(B) The Warrants will automatically be exercised on the Expiry Date, if the Issuer determines that the Cash Settlement Amount (calculated in accordance with these Conditions) is positive (without notice being given to the Warrantholders). The Warrantholders will not be required to deliver any exercise notice and the Issuer or its agent will pay to the Warrantholders the Cash Settlement Amount (if any) in accordance with Condition 3(E).

Any Warrant which has not been automatically exercised in accordance with this Condition 3(B) shall expire immediately thereafter and all rights of the Warrantholders and obligations of the Issuer with respect to such Warrant shall cease.

(C) Any Exercise Expenses which are not determined by the Issuer on the Expiry Date and deducted from the Cash Settlement Amount prior to delivery to the Warrantholders in accordance with this Condition 3, shall be notified by the Issuer to the Warrantholders as soon as practicable after determination thereof and shall be paid by the Warrantholders to the Issuer immediately upon demand.

(D) Subject to exercise of Warrants in accordance with these Conditions, or in the event that Warrants have expired worthless, the Issuer will, with effect from the first Business Day following the Expiry Date, remove the name of each Warrantholder from the register of Warrantholders in respect of such Warrants and thereby cancel the relevant Warrants and, if applicable, cancel the Global Certificate.

(E) Upon exercise of Warrants in accordance with these Conditions, the Issuer will pay the Cash Settlement Amount minus the determined Exercise Expenses to the relevant Warrantholder. If the Cash Settlement Amount is equal to or less than the determined Exercise Expenses, no amount is payable.

The aggregate Cash Settlement Amount minus the determined aggregate Exercise Expenses shall be despatched no later than the Settlement Date, by crediting that amount, in accordance with the CCASS Rules, to the relevant bank account designated by each Warrantholder (the "**Designated Bank Account**").

If as a result of an event beyond the control of the Issuer ("**Settlement Disruption Event**"), it is not possible for the Issuer to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Warrantholder on the original Settlement Date, the Issuer shall use its reasonable endeavours to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Warrantholder as soon as reasonably practicable after the original Settlement Date. The Issuer will not be liable to the Warrantholder for any interest in respect of the amount due or any loss or damage that such Warrantholder may suffer as a result of the existence of a Settlement Disruption Event.

(F) The Issuer's obligations to pay the Cash Settlement Amount shall be discharged by payment in accordance with Condition 3(E).

4. Sponsor

(A) The Sponsor will not assume any obligation or duty to or any relationship or agency or trust for the Warrantholders.

(B) The Issuer reserves the right, subject to the appointment of a successor, at any time to vary or terminate the appointment of the initial Sponsor and to appoint another sponsor provided that it will at all times maintain a sponsor in Hong Kong for so long as the Warrants are listed on the Stock Exchange. Notice of any such termination or appointment will be given to the Warrantholders in accordance with Condition 9.

5. Adjustments

(A) *Rights Issues*. If and whenever the Trust shall, by way of Rights (as defined below), offer new Units for subscription at a fixed subscription price to the holders of existing Units pro rata to existing holdings (a "**Rights Offer**"), the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Units becomes ex-entitlement ("**Rights Issue Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

$$\text{Adjustment Component} = \frac{1 + M}{1 + (R/S) \times M}$$

E: Existing Entitlement immediately prior to the Rights Offer

S: Cum-Rights Unit price being the closing price of an existing Unit as derived from the Daily Quotation Sheet of the Stock Exchange on the last Business Day on which the Units are traded on a Cum-Rights basis

R: Subscription price per new Unit specified in the Rights Offer plus an amount equal to any distributions or other benefits foregone to exercise the Right

M: Number of new Unit(s) (whether a whole or a fraction) per existing Unit each holder thereof is entitled to subscribe

Provided that if the above formula would result in an adjustment to the Entitlement which would amount to one per cent. or less of the Entitlement immediately prior to the adjustment, then no adjustment will be made. In addition, the Issuer shall adjust the Exercise Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Exercise Price shall take effect on the Rights Issue Adjustment Date.

For the purposes of these Conditions:

"**Rights**" means the right(s) attached to each existing Unit or needed to acquire one new Unit (as the case may be) which are given to the holders of existing Units to subscribe at a fixed subscription price for new Units pursuant to the Rights Offer (whether by the exercise of one Right, a part of a Right or an aggregate number of Rights).

(B) *Bonus Issues*. If and whenever the Trust shall make an issue of Units credited as fully paid to the holders of Units generally (other than pursuant to a scrip distribution or similar scheme for the time being operated by the Trust or otherwise in lieu of a cash distribution and without any payment or other consideration being made or given by such holders) (a "**Bonus Issue**") the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Units becomes ex-entitlement ("**Bonus Issue Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

Adjustment Component = (1 + N)

E: Existing Entitlement immediately prior to the Bonus Issue

N: Number of additional Units (whether a whole or a fraction) received by a holder of Units for each Units held prior to the Bonus Issue

Provided that if the above formula would result in an adjustment to the Entitlement which would amount to one per cent. or less of the Entitlement immediately prior to the adjustment, then no adjustment will be made. In addition, the Issuer shall adjust the Exercise Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Exercise Price shall take effect on the Bonus Issue Adjustment Date.

(C) *Subdivisions and Consolidations*. If and whenever the Trust shall subdivide its Units or any class of its outstanding Units into a greater number of units (a "**Subdivision**") or consolidate the Units or any class of its outstanding Units into a smaller number of units (a "**Consolidation**"), then:

(i) in the case of a Subdivision, the Entitlement in effect immediately prior thereto will be increased whereas the Exercise Price (which shall be rounded to the nearest 0.001) will be decreased in the same ratio as the Subdivision; and

(ii) in the case of a Consolidation, the Entitlement in effect immediately prior thereto will be decreased whereas the Exercise Price (which shall be rounded to the nearest 0.001) will be increased in the same ratio as the Consolidation,

in each case on the day on which the Subdivision or Consolidation (as the case may be) shall have taken effect.

(D) *Restructuring Events*. If it is announced that the Trust is to or may merge with or into any other trust or consolidate with or into any other trust or corporation (including becoming, by agreement or otherwise, controlled by any person or corporation) (except where the Trust is the surviving entity in a merger) or that it is to, or may, sell or transfer all or substantially all of its assets, the rights attaching to the Warrants may in the absolute discretion of the Issuer be amended no later than the Business Day preceding the consummation of such merger, consolidation, sale or transfer (each a "**Restructuring Event**") (as determined by the Issuer in its absolute discretion) so that the Warrants shall, after such Restructuring Event, relate to the number of units of the trust(s) resulting from or surviving such Restructuring Event or other securities ("**Substituted Securities**") and/or cash offered in substitution for the affected Units, as the case may be, to which the holder of such number of Units to which the Warrants related immediately before such Restructuring Event would have been entitled upon such Restructuring Event, and thereafter the provisions hereof shall apply to such Substituted Securities, provided that any Substituted Securities may, in the absolute discretion of the Issuer, be deemed to be replaced by an amount in the relevant currency equal to the market value or, if no market value is available, fair value, of such Substituted Securities in each case as determined by the Issuer as soon as practicable after such Restructuring Event is effected. For the avoidance of doubt, any remaining Units shall not be affected by this paragraph and, where cash is offered in substitution for Units or is deemed to replace Substituted Securities as described above, references in these Conditions to the Units shall include any such cash.

(E) *Cash Distribution*. No adjustment will be made for an ordinary cash distribution (whether or not it is offered with a scrip alternative) ("**Ordinary Distribution**"). For any other forms of cash distribution ("**Cash Distribution**") announced by the Trust, such as a cash bonus, special distribution or extraordinary distribution, no adjustment will be made unless the value of the Cash Distribution accounts for 2 per cent. or more of the Unit's closing price on the day of announcement by the Trust.

If and whenever the Trust shall make a Cash Distribution credited as fully paid to the holders of Units generally, the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Units becomes ex-entitlement in respect of the relevant Cash Distribution ("**Distribution Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

$$\text{Adjustment Component} = \frac{S - OD}{S - OD - CD}$$

E: The existing Entitlement immediately prior to the Cash Distribution

S: Cum-Cash Distribution Unit price being the closing price of an existing Unit as derived from the Daily Quotation Sheet of the Stock Exchange on the last Business Day on which the Units are traded on a cum-Cash Distribution basis

CD: The Cash Distribution per Unit

OD: The Ordinary Distribution per Unit, provided that the Ordinary Distribution and the Cash Distribution have the same ex-entitlement date. For avoidance of doubt, the OD shall be zero if the Ordinary Distribution and the Cash Distribution have different ex-entitlement dates

In addition, the Issuer shall adjust the Exercise Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Exercise Price shall take effect on the Distribution Adjustment Date.

(F) *Other Adjustments*. Without prejudice to and notwithstanding any prior adjustment(s) made pursuant to the applicable Conditions, the Issuer may (but shall not be obliged to) make such other adjustments to the terms and conditions of the Warrants as appropriate where any event (including the events as contemplated in the applicable Conditions) occurs and irrespective of, in substitution for, or in addition to the provisions contemplated in the applicable Conditions, provided that such adjustment is:

(i) not materially prejudicial to the interests of the Warrantholders generally (without considering the circumstances of any individual Warrantholder or the tax or other consequences of such adjustment in any particular jurisdiction); or

(ii) determined by the Issuer in good faith to be appropriate and commercially reasonable.

(G) *Notice of Adjustments*. All determinations made by the Issuer pursuant hereto will be conclusive and binding on the Warrantholders. The Issuer will give, or procure that there is given, notice as soon as practicable of any adjustment and of the date from which such adjustment is effective by publication in accordance with Condition 9.

6. Purchase

The Issuer or any of its subsidiaries may at any time purchase Warrants at any price in the open market or by tender or by private treaty. Any Warrants so purchased may be held or resold or surrendered for cancellation.

7. Global Certificate

A Global Certificate representing the Warrants will be deposited with CCASS in the name of HKSCC Nominees Limited. The Global Certificate must be executed manually on behalf of the Issuer by authorised person(s) or attorney(s) of the Issuer.

8. Meetings of Warrantholders and Modification

(A) *Meetings of Warrantholders*. The Instrument contains provisions for convening meetings of the Warrantholders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution (as defined in the Instrument) of a modification of the provisions of the Warrants or of the Instrument.

Any resolution to be passed in a meeting of the Warrantholders shall be decided by poll. A meeting may be convened by the Issuer or by Warrantholders holding not less than 10 per cent. of the Warrants for the time being remaining unexercised. The quorum at any such meeting for passing an Extraordinary Resolution will be two or more persons holding or representing not less than 25 per cent. of the Warrants for the time being remaining unexercised, or at any adjourned meeting two or more persons being or representing Warrantholders whatever the number of Warrants so held or represented.

A resolution will be an Extraordinary Resolution when it has been passed at a duly convened meeting by not less than three-quarters of the votes cast by such Warrantholders who, being entitled to do so, vote in person or by proxy.

An Extraordinary Resolution passed at any meeting of the Warrantholders shall be binding on all the Warrantholders, whether or not they are present at the meeting.

Resolutions can be passed in writing without a meeting of the Warrantholders being held if passed unanimously.

(B) *Modification*. The Issuer may, without the consent of the Warrantholders, effect any modification of the terms and conditions of the Warrants or the Instrument which, in the opinion of the Issuer, is (i) not materially prejudicial to the interests of the Warrantholders generally (without considering the circumstances of any individual Warrantholder or the tax or other consequences of such modification in any particular jurisdiction); (ii) of a formal, minor or technical nature; (iii) made to correct a manifest error; or (iv) necessary in order to comply with mandatory provisions of the laws or regulations of Hong Kong. Any such modification shall be binding on the Warrantholders and shall be notified to them by the Issuer as soon as practicable thereafter in accordance with Condition 9.

9. Notices

All notices to the Warrantholders will be validly given if published in English and in Chinese on the HKEX website. In such circumstances, the Issuer shall not be required to despatch copies of the notice to the Warrantholders.

10. Termination or Liquidation

In the event of a Termination or the liquidation or dissolution of the trustee of the Trust (including any successor trustee appointed from time to time) ("**Trustee**") (in its capacity as trustee of the Trust) or the appointment of a liquidator, receiver or administrator or analogous person under any applicable law in respect of the whole or substantially the whole of the Trustee's undertaking, property or assets, all unexercised Warrants will lapse and shall cease to be valid for any purpose. In the case of a Termination, the unexercised Warrants will lapse and shall cease to be valid on the effective date of the Termination, in the case of a voluntary liquidation, the unexercised Warrants will lapse and shall cease to be valid on the effective date of the relevant resolution and, in the case of an involuntary liquidation or dissolution, on the date of the relevant court order or, in the case of the appointment of a liquidator or receiver or administrator or analogous person under any applicable law in respect of the whole or substantially the whole of the Trustee's undertaking, property or assets, on the date when such appointment is effective but subject (in any such case) to any contrary mandatory requirement of law.

For the purpose of this Condition 10, "**Termination**" means (i) the Trust is terminated, or the Trustee or the manager of the Trust (including any successor manager appointed from time to time) ("**Manager**") is required to terminate the Trust under the trust deed ("**Trust Deed**") constituting the Trust or applicable law, or the termination of the Trust commences; (ii) the Trust is held or is conceded by the Trustee or the Manager not to have been constituted or to have been imperfectly constituted; (iii) the Trustee ceases to be authorised under the Trust to hold the property of the Trust in its name and perform its obligations under the Trust Deed; or (iv) the Trust ceases to be authorised as an authorised collective investment scheme under the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong).

11. Further Issues

The Issuer shall be at liberty from time to time, without the consent of the Warrantholders, to create and issue further warrants so as to form a single series with the Warrants.

12. Delisting

(A) If at any time the Units cease to be listed on the Stock Exchange, the Issuer shall give effect to these Conditions in such manner and make such adjustments and amendments to the rights attaching to the Warrants as it shall, in its absolute discretion, consider appropriate to ensure, so far as it is reasonably able to do so, that the interests of the Warrantholders generally are not materially prejudiced as a consequence of such delisting (without considering the circumstances of any individual Warrantholder or the tax or other consequences that may result in any particular jurisdiction).

(B) Without prejudice to the generality of Condition 12(A), where the Units are, or, upon the delisting, become, listed on any other stock exchange, these Conditions may, in the absolute discretion of the Issuer, be amended to the extent necessary to allow for the substitution of that other stock exchange in place of the Stock Exchange and the Issuer may, without the consent of the Warrantholders, make such adjustments to the entitlements of the Warrantholders on exercise (including, if appropriate, by converting foreign currency amounts at prevailing market rates into the relevant currency) as may be appropriate in the circumstances.

(C) The Issuer shall determine, in its absolute discretion, any adjustment or amendment and its determination shall be conclusive and binding on the Warrantholders save in the case of manifest error. Notice of any adjustments or amendments shall be given to the Warrantholders in accordance with Condition 9 as soon as practicable after they are determined.

13. Illegality or Impracticability

The Issuer is entitled to terminate the Warrants if it determines in good faith and in a commercially reasonable manner that, for reasons beyond its control, it has become or it will become illegal or impracticable:

(i) for it to perform its obligations under the Warrants in whole or in part as a result of:

(a) the adoption of, or any change in, any relevant law or regulation (including any tax law); or

(b) the promulgation of, or any change in, the interpretation by any court, tribunal, governmental, administrative, legislative, regulatory or judicial authority or power with competent jurisdiction of any relevant law or regulation (including any tax law),

(each of (a) and (b), a "**Change in Law Event**"); or

(ii) for it or any of its affiliates to maintain the Issuer's hedging arrangements with respect to the Warrants due to a Change in Law Event.

Upon the occurrence of a Change in Law Event, the Issuer will, if and to the extent permitted by the applicable law or regulation, pay to each Warrantholder a cash amount that the Issuer determines in good faith and in a commercially reasonable manner to be the fair market value in respect of each Warrant held by such Warrantholder immediately prior to such termination (ignoring such illegality or impracticability) less the cost to the Issuer of unwinding any related hedging arrangement as determined by the Issuer in its sole and absolute discretion. Payment will be made to each Warrantholder in such manner as shall be notified to the Warrantholder in accordance with Condition 9.

14. Good Faith and Commercially Reasonable Manner

Any exercise of discretion by the Issuer under these Conditions will be made in good faith and in a commercially reasonable manner.

15. Governing Law

The Warrants and the Instrument are governed by and construed in accordance with the laws of the Hong Kong Special Administrative Region of the People's Republic of China ("**Hong Kong**"). The Issuer and each Warrantholder (by its purchase of the Warrants) submit for all purposes in connection with the Warrants and the Instrument to the non-exclusive jurisdiction of the courts of Hong Kong.

16. Contracts (Rights of Third Parties) Ordinance

A person who is not a party to these Conditions has no right under the Contracts (Rights of Third Parties) Ordinance (Cap. 623 of the Laws of Hong Kong) to enforce or to enjoy the benefit of any term of the Warrants.

17. Language

A Chinese translation of these Conditions will be made available for collection during normal office hours from the Sponsor at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. In the event of any inconsistency between the Chinese translation and the English version of these Conditions, the English version of these Conditions shall prevail.

18. Prescription

Claims against the Issuer for payment of any amount in respect of the Warrants will become void unless made within ten years of the Expiry Date and thereafter, any sums payable in respect of such Warrants shall be forfeited and shall revert to the Issuer.

Sponsor:
UBS Securities Asia Limited
52nd Floor
Two International Finance Centre
8 Finance Street, Central
Hong Kong

APPENDIX 2 — TERMS AND CONDITIONS OF CBBCs

The following pages set out the Conditions in respect of different types of CBBCs.

PART A — TERMS AND CONDITIONS OF CASH SETTLED CALLABLE BULL/BEAR CONTRACTS OVER SINGLE EQUITIES

These Conditions will, together with the supplemental provisions contained in the relevant Supplemental Listing Document, and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Supplemental Listing Document in relation to the issue of any series of CBBCs may specify other terms and conditions which shall, to the extent so specified or to the extent they are inconsistent with these Conditions, replace or modify these Conditions for the purpose of such series of CBBCs.

1. Form, Status, Transfer, Title and Additional Costs and Expenses

(A) The CBBCs (which expression shall, unless the context otherwise requires, include any further CBBCs issued pursuant to Condition 12) relating to the Shares of the Company are issued in registered form subject to and with the benefit of an instrument by way of deed poll (the "**Instrument**" as defined more fully in the relevant Supplemental Listing Document) executed by UBS AG (the "**Issuer**") acting through its London branch or any of its branches outside Switzerland as it may specify from time to time. The Holders (as defined below) are entitled to the benefit of, are bound by, and are deemed to have notice of all the provisions of the Instrument. A copy of the Instrument is available for inspection at the offices of UBS Securities Asia Limited ("**Sponsor**") at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong.

The CBBCs are represented by a global certificate ("**Global Certificate**") registered in the name of HKSCC Nominees Limited (or such other nominee company as may be used by Hong Kong Securities Clearing Company Limited ("**HKSCC**") from time to time in relation to the provision of nominee services to persons admitted for the time being by HKSCC as a participant of CCASS) (the "**Nominee**"). No definitive certificate will be issued. The CBBCs can only be exercised by HKSCC or the Nominee.

(B) The settlement obligation of the Issuer in respect of the CBBCs represents general unsecured contractual obligations of the Issuer and of no other person which rank, and will rank, equally among themselves and pari passu with all other present and future unsecured and unsubordinated contractual obligations of the Issuer, except for obligations accorded preference by mandatory provisions of applicable law.

CBBCs represent general contractual obligations of the Issuer, and are not, nor is it the intention (expressed, implicit or otherwise) of the Issuer to create by the issue of CBBCs deposit liabilities of the Issuer or a debt obligation of any kind.

(C) Transfers of CBBCs may be effected only in Board Lots or integral multiples thereof in CCASS in accordance with the General Rules of CCASS and the CCASS Operational Procedures in effect from time to time (the "**CCASS Rules**").

(D) Each person who is for the time being shown in the register kept by the Issuer in Hong Kong as the holder shall be treated by the Issuer and the Sponsor as the absolute owner and holder of the CBBCs. The expression "**Holder**" and "**Holders**" shall be construed accordingly.

(E) Holders are responsible for additional costs and expenses in connection with any exercise of the CBBCs including the Exercise Expenses (as defined below) which amount shall, subject to Condition 4(G) and to the extent necessary, be payable to the Issuer and collected from the Holders.

2. Definitions

For the purposes of these Conditions:

"**Board Lot**" has the meaning given to it in the relevant Supplemental Listing Document;

"**Business Day**" means a day (excluding Saturdays) on which the Stock Exchange is scheduled to open for dealings in Hong Kong and banks are open for business in Hong Kong;

"**Call Price**" means the price specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 6;

"**Cash Settlement Amount**" means, for every Board Lot, an amount in the Settlement Currency calculated by the Issuer in accordance with the following formula:

(i) following a Mandatory Call Event:

(a) in the case of a series of Category R CBBCs, the Residual Value; or

(b) in the case of a series of Category N CBBCs, zero.

(ii) at expiry:

(a) in the case of a series of bull CBBCs:

$$\text{Cash Settlement Amount per Board Lot} = \frac{\text{Entitlement x (Closing Price - Strike Price) x one Board Lot}}{\text{Number of CBBC(s) per Entitlement}}$$

(b) in the case of a series of bear CBBCs:

$$\text{Cash Settlement Amount per Board Lot} = \frac{\text{Entitlement x (Strike Price - Closing Price) x one Board Lot}}{\text{Number of CBBC(s) per Entitlement}}$$

For the avoidance of doubt, if the Cash Settlement Amount is a negative figure, it shall be deemed to be zero;

"**Category N CBBCs**" means a series of CBBCs where the Call Price is equal to the Strike Price;

"**Category R CBBCs**" means a series of CBBCs where the Call Price is different from the Strike Price;

"**CCASS**" means the Central Clearing and Settlement System;

"**CCASS Settlement Day**" has the meaning ascribed to the term "Settlement Day" in the CCASS Rules, subject to such modification and amendment prescribed by HKSCC from time to time;

"**Closing Price**" means the closing price of one Share (as derived from the Daily Quotation Sheet of the Stock Exchange, subject to any adjustment to such closing price as may be necessary to reflect any event as contemplated in Condition 6 such as capitalisation, rights issue, distribution or the like) on the Valuation Date;

"**Company**" means the company specified as such in the relevant Supplemental Listing Document;

"**Entitlement**" means the number specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 6;

"**Exercise Expenses**" means any charges or expenses including any taxes or duties which are incurred in respect of the exercise of a Board Lot of CBBCs;

"**Expiry Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Listing Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Mandatory Call Event**" occurs when the Spot Price of the Shares on any Trading Day during the Observation Period is:

(i) in the case of a series of bull CBBCs, at or below the Call Price; or

(ii) in the case of a series of bear CBBCs, at or above the Call Price;

"**Market Disruption Event**" means:

(1) the occurrence or existence on any Trading Day during the one-half hour period that ends at the close of trading of any suspension of or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the Stock Exchange or otherwise) on the Stock Exchange in (a) the Shares; or (b) any options or futures contracts relating to the Shares if, in any such case, such suspension or limitation is, in the determination of the Issuer, material;

(2) the issuance of the tropical cyclone warning signal number 8 or above or the issuance of a "BLACK" rainstorm signal on any day which either (i) results in the Stock Exchange being closed for trading for the entire day; or (ii) results in the Stock Exchange being closed prior to its regular time for close of trading for the relevant day (for the avoidance of doubt, in the case when the Stock Exchange is scheduled to open for the morning trading session only, closed prior to its regular time for close of trading for the morning session), PROVIDED THAT there shall be no Market Disruption Event solely by reason of the Stock Exchange opening for trading later than its regular time for opening of trading on any day as a result of the tropical cyclone warning signal number 8 or above or the "BLACK" rainstorm signal having been issued; or

(3) a limitation or closure of the Stock Exchange due to any unforeseen circumstances;

"**Maximum Trade Price**" means the highest Spot Price of the Shares (subject to any adjustment to such Spot Price as may be necessary to reflect any event as contemplated in Condition 6 such as capitalisation, rights issue, distribution or the like) during the MCE Valuation Period;

"**MCE Valuation Period**" means the period commencing from and including the moment upon which the Mandatory Call Event occurs (the trading session during which the Mandatory Call Event occurs is the "**1st Session**") and up to the end of the trading session on the Stock Exchange immediately following the 1st Session ("**2nd Session**") unless, in the determination of the Issuer in its good faith, the 2nd Session for any reason (including, without limitation, a Market Disruption Event occurring and subsisting in the 2nd Session) does not contain any continuous period of 1 hour or more than 1 hour during which trading in the Shares is permitted on the Stock Exchange with no limitation imposed, the MCE Valuation Period shall be extended to the end of the subsequent trading session following the 2nd Session during which trading in the Shares is permitted on the Stock Exchange with no limitation imposed for a continuous period of at least 1 hour notwithstanding the existence or continuance of a Market Disruption Event in such postponed trading session, unless the Issuer determines in its good faith that each trading session on each of the four Trading Days immediately following the date on which the Mandatory Call

Event occurs does not contain any continuous period of 1 hour or more than 1 hour during which trading in the Shares is permitted on the Stock Exchange with no limitation imposed. In that case:

(i) the period commencing from the 1st Session up to, and including, the last trading session on the Stock Exchange of the fourth Trading Day immediately following the date on which the Mandatory Call Event occurs shall be deemed to be the MCE Valuation Period; and

(ii) the Issuer shall determine the Maximum Trade Price or the Minimum Trade Price (as the case may be) having regard to the then prevailing market conditions, the last reported Spot Price and such other factors as the Issuer may determine to be relevant in its good faith.

For the avoidance of doubt, all Spot Prices available throughout the extended MCE Valuation Period shall be taken into account to determine the Maximum Trade Price or the Minimum Trade Price (as the case may be) for the calculation of the Residual Value.

For the purposes of this definition,

(a) the pre-opening session, the morning session and, in the case of half day trading, the closing auction session (if any) of the same day; and

(b) the afternoon session and the closing auction session (if any) of the same day,

shall each be considered as one trading session only;

"**Minimum Trade Price**" means the lowest Spot Price of the Shares (subject to any adjustment to such Spot Price as may be necessary to reflect any event as contemplated in Condition 6 such as capitalisation, rights issue, distribution or the like) during the MCE Valuation Period;

"**Observation Commencement Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Observation Period**" means the period commencing from and including the Observation Commencement Date and ending on and including the Trading Day immediately preceding the Expiry Date;

"**Post MCE Trades**" has the meaning given to it in the relevant Supplemental Listing Document, subject to such modification and amendment prescribed by the Stock Exchange from time to time;

"**Residual Value**" means, for every Board Lot, an amount in the Settlement Currency calculated by the Issuer in accordance with the following formula:

(i) in the case of a series of bull CBBCs:

$$\text{Residual Value per Board Lot} = \frac{\text{Entitlement x (Minimum Trade Price - Strike Price) x one Board Lot}}{\text{Number of CBBC(s) per Entitlement}}$$

(ii) in the case of a series of bear CBBCs:

$$\text{Residual Value per Board Lot} = \frac{\text{Entitlement x (Strike Price - Maximum Trade Price) x one Board Lot}}{\text{Number of CBBC(s) per Entitlement}}$$

"**Settlement Currency**" means the currency specified as such in the relevant Supplemental Listing Document;

"**Settlement Date**" means the third CCASS Settlement Day after (i) the end of the MCE Valuation Period or (ii) the later of: (a) the Expiry Date; and (b) the day on which the Closing Price is determined in accordance with the Conditions (as the case may be);

"**Share**" means the share specified as such in the relevant Supplemental Listing Document;

"**Spot Price**" means:

(a) in respect of a continuous trading session of the Stock Exchange, the price per Share concluded by means of automatic order matching on the Stock Exchange as reported in the official real-time dissemination mechanism for the Stock Exchange during such continuous trading session in accordance with the Trading Rules, excluding direct business (as defined in the Trading Rules); and

(b) in respect of a pre-opening session or a closing auction session (if applicable) of the Stock Exchange, as the case may be, the final Indicative Equilibrium Price (as defined in the Trading Rules) of the Share (if any) calculated at the end of the pre-order matching period of such pre-opening session or closing auction session (if applicable), as the case may be, in accordance with the Trading Rules, excluding direct business (as defined in the Trading Rules),

subject to such modification and amendment prescribed by the Stock Exchange from time to time;

"**Stock Exchange**" means The Stock Exchange of Hong Kong Limited;

"**Strike Price**" means the price specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 6;

"**Trading Day**" means any day on which the Stock Exchange is scheduled to open for trading for its regular trading sessions;

"**Trading Rules**" means the Rules and Regulations of the Exchange prescribed by the Stock Exchange from time to time; and

"**Valuation Date**" means the Trading Day immediately preceding the Expiry Date unless, in the determination of the Issuer, a Market Disruption Event has occurred on that day in which case, the Valuation Date shall be the first succeeding Trading Day on which the Issuer determines that there is no Market Disruption Event, unless the Issuer determines that there is a Market Disruption Event occurring on each of the four Trading Days immediately following the original date which (but for the Market Disruption Event) would have been the Valuation Date. In that case:

(a) the fourth Trading Day immediately following the original date shall be deemed to be the Valuation Date (regardless of the Market Disruption Event); and

(b) the Issuer shall determine the Closing Price having regard to the then prevailing market conditions, the last reported trading price of the Share on the Stock Exchange and such other factors as the Issuer determines to be relevant.

Other capitalized terms shall, unless otherwise defined herein, have the meaning ascribed to them in the Base Listing Document, any addendum to the Base Listing Document, the relevant Supplemental Listing Document or the Global Certificate.

3. Hedging Disruption and Illegality or Impracticability

(A) Hedging Disruption

(i) *Notification.* The Issuer shall as soon as reasonably practicable give notice to the Holders in accordance with Condition 10:

(1) if it determines that a Hedging Disruption Event has occurred; and

(2) of the consequence of such Hedging Disruption Event as determined by the Issuer pursuant to Condition 3(A)(iii).

(ii) *Hedging Disruption Event.* A "**Hedging Disruption Event**" occurs if the Issuer determines in good faith and in a commercially reasonable manner that it is or has become not reasonably practicable or it has otherwise become undesirable, for any reason, for the Issuer wholly or partially to establish, re-establish, substitute or maintain a relevant hedging transaction (a "**Relevant Hedging Transaction**") it deems necessary or desirable to hedge the Issuer's obligations in respect of the CBBCs. The reasons for such determination by the Issuer may include, but are not limited to, the following:

(1) any material illiquidity in the market for the Shares;

(2) a change in any applicable law (including, without limitation, any tax law) or the promulgation of, or change in, the interpretation of any court, tribunal or regulatory authority with competent jurisdiction of any applicable law (including any action taken by a taxing authority);

(3) a material decline in the creditworthiness of a party with whom the Issuer has entered into any such Relevant Hedging Transaction; or

(4) the general unavailability of:

(A) market participants who will agree to enter into a Relevant Hedging Transaction; or

(B) market participants who will so enter into a Relevant Hedging Transaction on commercially reasonable terms.

(iii) *Consequences.* The Issuer, in the event of a Hedging Disruption Event, may determine to:

(1) terminate the CBBCs. In such circumstances the Issuer will, however, if and to the extent permitted by the applicable law, pay to each Holder in respect of each CBBC held by such Holder an amount that the Issuer determines in good faith and in a commercially reasonable manner to be the fair market value of the CBBC immediately prior to such termination less the cost to the Issuer of unwinding any related hedging arrangements. Payment will be made to the Holder in such manner as shall be notified to the Holder in accordance with Condition 10; or

(2) make any other adjustment to the Conditions as it considers appropriate in order to maintain the theoretical value of the CBBCs after adjusting for the relevant Hedging Disruption Event.

(B) Illegality or Impracticability

The Issuer is entitled to terminate the CBBCs if it determines in good faith and in a commercially reasonable manner that, for reasons beyond its control, it has become or it will become illegal or impracticable:

(i) for it to perform its obligations under the CBBCs in whole or in part as a result of:

(1) the adoption of, or any change in, any relevant law or regulation (including any tax law); or

(2) the promulgation of, or any change in, the interpretation by any court, tribunal, governmental, administrative, legislative, regulatory or judicial authority or power with competent jurisdiction of any relevant law or regulation (including any tax law),

(each of (1) and (2), a "**Change in Law Event**"); or

(ii) for it or any of its affiliates to maintain the Issuer's hedging arrangements with respect to the CBBCs due to a Change in Law Event.

Upon the occurrence of a Change in Law Event, the Issuer will, if and to the extent permitted by the applicable law or regulation, pay to each Holder a cash amount that the Issuer determines in good faith and in a commercially reasonable manner to be the fair market value in respect of each CBBC held by such Holder immediately prior to such termination (ignoring such illegality or impracticability) less the cost to the Issuer of unwinding any related hedging arrangement as determined by the Issuer in its sole and absolute discretion. Payment will be made to each Holder in such manner as shall be notified to the Holder in accordance with Condition 10.

4. Exercise of CBBCs

(A) CBBCs may only be exercised in Board Lots or integral multiples thereof.

(B) If no Mandatory Call Event has occurred during the Observation Period, the CBBCs will be deemed to be automatically exercised on the Expiry Date.

(C) Mandatory Call Event

(i) Subject to paragraph (ii) below, following a Mandatory Call Event, the CBBCs will terminate automatically and the Issuer shall have no further obligation under the CBBCs except for the payment of the Cash Settlement Amount (if any) following the Mandatory Call Event on the relevant Settlement Date. The Issuer will give notice to the Holders in accordance with Condition 10. Trading in the CBBCs will be suspended immediately upon the occurrence of a Mandatory Call Event and all Post MCE Trades will be cancelled and will not be recognised by the Issuer or the Stock Exchange.

Revocation

(ii) A Mandatory Call Event is irrevocable unless it is triggered as a result of any of the following events:

(1) system malfunction or other technical errors of Hong Kong Exchanges and Clearing Limited ("**HKEX**") (such as the setting up of wrong Call Price and other parameters); or

(2) manifest errors caused by the relevant third party price source where applicable;

and

(A) in the case of a system malfunction or other technical errors prescribed in paragraph (1) above, such event is reported by the Stock Exchange to the Issuer and the Issuer and the Stock Exchange mutually agree that such Mandatory Call Event is to be revoked; and

(B) in the case of an error by the relevant price source prescribed in paragraph (2) above, such event is reported by the Issuer to the Stock Exchange and the Issuer and the Stock Exchange mutually agree that such Mandatory Call Event is to be revoked,

in each case, such mutual agreement must be reached no later than 30 minutes before the commencement of trading (including the pre-opening session) (Hong Kong time) on the Trading Day of the Stock Exchange immediately following the day on which the Mandatory Call Event occurs or such other time frame as prescribed by the Stock Exchange from time to time.

(D) Every Board Lot of CBBCs entitles the Holder to receive from the Issuer on the Settlement Date the Cash Settlement Amount (if any).

(E) Any Exercise Expenses which are not determined by the Issuer by the Business Day after the MCE Valuation Period or the Expiry Date (as the case may be) and deducted from the Cash Settlement Amount prior to delivery to the Holders in accordance with this Condition 4, shall be notified by the Issuer to the Holders as soon as practicable after determination thereof and shall be paid by the Holders to the Issuer immediately upon demand.

(F) In the event that the CBBCs have been exercised or have expired worthless, the Issuer will, with effect from the first Business Day following the MCE Valuation Period or the Expiry Date, as the case may be, remove the name of each Holder from the register of Holders in respect of such CBBCs and thereby cancel the relevant CBBCs and, if applicable, cancel the Global Certificate.

(G) Upon exercise following a Mandatory Call Event or on the Expiry Date in accordance with these Conditions, the Issuer will pay the Cash Settlement Amount minus the determined Exercise Expenses to the relevant Holder. If the Cash Settlement Amount is equal to or less than the determined Exercise Expenses, no amount is payable.

The aggregate Cash Settlement Amount minus the determined aggregate Exercise Expenses shall be despatched no later than the Settlement Date, by crediting that amount, in accordance with the CCASS Rules, to the relevant bank account designated by each Holder (the "**Designated Bank Account**").

If as a result of an event beyond the control of the Issuer ("**Settlement Disruption Event**"), it is not possible for the Issuer to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Holder on the original Settlement Date, the Issuer shall use its reasonable endeavours to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Holder as soon as reasonably practicable after the original Settlement Date. The Issuer will not be liable to the Holder for any interest in respect of the amount due or any loss or damage that such Holder may suffer as a result of the existence of a Settlement Disruption Event.

(H) None of the Issuer, the Sponsor or their respective agents shall have any responsibility for any errors or omissions in the calculation and dissemination of any variables published by a third party and used in any calculation made pursuant to these Conditions or in the calculation of the Cash Settlement Amount arising from such errors or omissions.

The purchase of CBBCs does not confer on any Holder of such CBBCs any rights (whether in respect of voting, distributions or otherwise) in relation to the Shares.

(I) Exercise and settlement of the CBBCs is subject to all applicable laws, rules, regulations and guidelines in force at the relevant time and neither the Issuer nor the Sponsor shall incur any liability whatsoever if it is unable to effect the transactions contemplated, after using all reasonable efforts, as a result of any such laws, rules, regulations or guidelines. Neither the Issuer nor the Sponsor shall under any circumstances be liable for any acts or defaults of the CCASS in relation to the performance of its duties in relation to the CBBCs.

(J) Subject to Condition 4(C)(ii), trading in CBBCs on the Stock Exchange shall cease (i) immediately upon the occurrence of a Mandatory Call Event or (ii) at the close of trading for the Trading Day immediately preceding the Expiry Date (for the avoidance of doubt, in the case when the Stock Exchange is scheduled to open for the morning session only, at the close of trading for the morning session), whichever is the earlier. All Post MCE Trades will be invalid and will be cancelled, and will not be recognised by the Issuer or the Stock Exchange.

5. Sponsor

(A) The Sponsor will not assume any obligation or duty to or any relationship or agency or trust for the Holders.

(B) The Issuer reserves the right, subject to the appointment of a successor, at any time to vary or terminate the appointment of the initial Sponsor and to appoint another sponsor provided that it will at all times maintain a sponsor in Hong Kong for so long as the CBBCs are listed on the Stock Exchange. Notice of any such termination or appointment will be given to the Holders in accordance with Condition 10.

6. Adjustments

(A) *Rights Issues*. If and whenever the Company shall, by way of Rights (as defined below), offer new Shares for subscription at a fixed subscription price to the holders of existing Shares pro rata to existing holdings (a "**Rights Offer**"), the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Shares becomes ex-entitlement ("**Rights Issue Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

$$\text{Adjustment Component} = \frac{1 + M}{1 + (R/S) \times M}$$

E: Existing Entitlement immediately prior to the Rights Offer

S: Cum-Rights Share price being the closing price of an existing Share as derived from the Daily Quotation Sheet of the Stock Exchange on the last Business Day on which the Shares are traded on a Cum-Rights basis

R: Subscription price per new Share specified in the Rights Offer plus an amount equal to any dividends or other benefits foregone to exercise the Right

M: Number of new Share(s) (whether a whole or a fraction) per existing Share each holder thereof is entitled to subscribe

Provided that if the above formula would result in an adjustment to the Entitlement which would amount to one per cent. or less of the Entitlement immediately prior to the adjustment, then no adjustment will be made. In addition, the Issuer shall adjust the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Strike Price and/or the Call Price shall take effect on the Rights Issue Adjustment Date.

For the purposes of these Conditions:

"**Rights**" means the right(s) attached to each existing Share or needed to acquire one new Share (as the case may be) which are given to the holders of existing Shares to subscribe at a fixed subscription price for new Shares pursuant to the Rights Offer (whether by the exercise of one Right, a part of a Right or an aggregate number of Rights).

(B) *Bonus Issues*. If and whenever the Company shall make an issue of Shares credited as fully paid to the holders of Shares generally by way of capitalisation of profits or reserves (other than pursuant to a scrip dividend or similar scheme for the time being operated by the Company or otherwise in lieu of a cash dividend and without any payment or other consideration being made or given by such holders) (a "**Bonus Issue**") the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Shares becomes ex-entitlement ("**Bonus Issue Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

Adjustment Component = (1 + N)

E: Existing Entitlement immediately prior to the Bonus Issue

N: Number of additional Shares (whether a whole or a fraction) received by a holder of Shares for each Share held prior to the Bonus Issue

Provided that if the above formula would result in an adjustment to the Entitlement which would amount to one per cent. or less of the Entitlement immediately prior to the adjustment, then no adjustment will be made. In addition, the Issuer shall adjust the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Strike Price and/or the Call Price shall take effect on the Bonus Issue Adjustment Date.

(C) *Subdivisions and Consolidations*. If and whenever the Company shall subdivide its Shares or any class of its outstanding share capital comprised of the Shares into a greater number of shares (a "**Subdivision**") or consolidate the Shares or any class of its outstanding share capital comprised of the Shares into a smaller number of shares (a "**Consolidation**"), then:

(i) in the case of a Subdivision, the Entitlement in effect immediately prior thereto will be increased whereas the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) will be decreased in the same ratio as the Subdivision; and

(ii) in the case of a Consolidation, the Entitlement in effect immediately prior thereto will be decreased whereas the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) will be increased in the same ratio as the Consolidation, in each case on the day on which the Subdivision or Consolidation (as the case may be) shall have taken effect.

(D) *Restructuring Events*. If it is announced that the Company is to or may merge or consolidate with or into any other corporation (including becoming, by agreement or otherwise, a subsidiary of or controlled by any person or corporation) (except where the Company is the surviving corporation in a merger) or that it is to or may sell or transfer all or substantially all of its assets, the rights attaching to the CBBCs may in the absolute discretion of the Issuer be amended no later than the Business Day preceding the consummation of such merger, consolidation, sale or transfer (each a "**Restructuring Event**") (as determined by the Issuer in its absolute discretion) so that the CBBCs shall, after such Restructuring Event, relate to the number of shares of the corporation(s) resulting from or surviving such Restructuring Event or other securities ("**Substituted Securities**") and/or cash offered in substitution for the affected Shares, as the case may be, to which the holder of such number of Shares to which the CBBCs related immediately before such Restructuring Event would have been entitled upon such Restructuring Event, and thereafter the provisions hereof shall apply to such Substituted Securities, provided that any Substituted Securities may, in the absolute discretion of the Issuer, be deemed to be replaced by an amount in the relevant currency equal to the market value or, if no market value is available, fair value, of such Substituted Securities in each case as determined by the Issuer as soon as practicable after such Restructuring Event is effected. For the avoidance of doubt, any remaining Shares shall not be affected by this paragraph and, where cash is offered in substitution for Shares or is deemed to replace Substituted Securities as described above, references in these Conditions to the Shares shall include any such cash.

(E) *Cash Distribution*. No adjustment will be made for an ordinary cash dividend (whether or not it is offered with a scrip alternative) ("**Ordinary Dividend**"). For any other forms of cash distribution ("**Cash Distribution**") announced by the Company, such as a cash bonus, special dividend or extraordinary dividend, no adjustment will be made unless the value of the Cash Distribution accounts for 2 per cent. or more of the Share's closing price on the day of announcement by the Company.

If and whenever the Company shall make a Cash Distribution credited as fully paid to the holders of Shares generally, the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Shares becomes ex-entitlement in respect of the Cash Distribution ("**Distribution Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

$$\text{Adjustment Component} = \frac{S - OD}{S - OD - CD}$$

E: The existing Entitlement immediately prior to the Cash Distribution

S: Cum-Cash Distribution Share price being the closing price of an existing Share as derived from the Daily Quotation Sheet of the Stock Exchange on the last Business Day on which the Shares are traded on a cum-Cash Distribution basis

CD: The Cash Distribution per Share

OD: The Ordinary Dividend per Share, provided that the Ordinary Dividend and the Cash Distribution have the same ex-entitlement date. For avoidance of doubt, the OD shall be zero if the Ordinary Dividend and the Cash Distribution have different ex-entitlement dates

In addition, the Issuer shall adjust the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Strike Price and/or the Call Price shall take effect on the Distribution Adjustment Date.

(F) *Other Adjustments.* Without prejudice to and notwithstanding any prior adjustment(s) made pursuant to the applicable Conditions, the Issuer may (but shall not be obliged to) make such other adjustments to the terms and conditions of the CBBCs as appropriate where any event (including the events as contemplated in the applicable Conditions) occurs and irrespective of, in substitution for, or in addition to the provisions contemplated in the applicable Conditions, provided that such adjustment is:

(i) not materially prejudicial to the interests of the Holders generally (without considering the circumstances of any individual Holder or the tax or other consequences of such adjustment in any particular jurisdiction); or

(ii) determined by the Issuer in good faith to be appropriate and commercially reasonable.

(G) *Notice of Adjustments.* All determinations made by the Issuer pursuant hereto will be conclusive and binding on the Holders. The Issuer will give, or procure that there is given, notice as soon as practicable of any adjustment and of the date from which such adjustment is effective by publication in accordance with Condition 10.

7. Purchase

The Issuer or any of its subsidiaries may at any time purchase CBBCs at any price in the open market or by tender or by private treaty. Any CBBCs so purchased may be held or resold or surrendered for cancellation.

8. Global Certificate

A Global Certificate representing the CBBCs will be deposited with CCASS in the name of HKSCC Nominees Limited. The Global Certificate must be executed manually on behalf of the Issuer by authorised person(s) or attorney(s) of the Issuer.

9. Meetings of Holders and Modification

(A) *Meetings of Holders.* The Instrument contains provisions for convening meetings of the Holders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution (as defined in the Instrument) of a modification of the provisions of the CBBCs or of the Instrument.

Any resolution to be passed in a meeting of the Holders shall be decided by poll. A meeting may be convened by the Issuer or by Holders holding not less than 10 per cent. of the CBBCs for the time being remaining unexercised. The quorum at any such meeting for passing an Extraordinary Resolution will be two or more persons holding or representing not less than 25 per cent. of the CBBCs for the time being remaining unexercised, or at any adjourned meeting two or more persons being or representing Holders whatever the number of CBBCs so held or represented.

A resolution will be an Extraordinary Resolution when it has been passed at a duly convened meeting by not less than three-quarters of the votes cast by such Holders who, being entitled to do so, vote in person or by proxy.

An Extraordinary Resolution passed at any meeting of the Holders shall be binding on all the Holders, whether or not they are present at the meeting.

Resolutions can be passed in writing without a meeting of the Holders being held if passed unanimously.

(B) *Modification.* The Issuer may, without the consent of the Holders, effect any modification of the terms and conditions of the CBBCs or the Instrument which, in the opinion of the Issuer, is (i) not materially prejudicial to the interests of the Holders generally (without considering the circumstances of any individual Holder or the tax or other consequences of such modification in any particular jurisdiction); (ii) of a formal, minor or technical nature; (iii) made to correct a manifest error; or (iv) necessary in order to comply with mandatory provisions of the laws or regulations of Hong Kong. Any such modification shall be binding on the Holders and shall be notified to them by the Issuer as soon as practicable thereafter in accordance with Condition 10.

10. Notices

All notices to the Holders will be validly given if published in English and in Chinese on the HKEX website. In such circumstances, the Issuer shall not be required to despatch copies of the notice to the Holders.

11. Liquidation

In the event of a liquidation or dissolution of the Company or the appointment of a liquidator, receiver or administrator or analogous person under any applicable law in respect of the whole or substantially the whole of its undertaking, property or assets, all unexercised CBBCs will lapse and shall cease to be valid for any purpose. In the case of voluntary liquidation, the unexercised CBBCs will lapse and shall cease to be valid on the effective date of the relevant resolution and, in the case of an involuntary liquidation or dissolution, on the date of the relevant court order or, in the case of the appointment of a liquidator or receiver or administrator or analogous person under any applicable law in respect of the whole or substantially the whole of its undertaking, property or assets, on the date when such appointment is effective but subject (in any such case) to any contrary mandatory requirement of law.

12. Further Issues

The Issuer shall be at liberty from time to time, without the consent of the Holders, to create and issue further CBBCs so as to form a single series with the CBBCs.

13. Delisting

(A) If at any time the Shares cease to be listed on the Stock Exchange, the Issuer shall give effect to these Conditions in such manner and make such adjustments and amendments to the rights attaching to the CBBCs as it shall, in its absolute discretion, consider appropriate to ensure, so far as it is reasonably able to do so, that the interests of the Holders generally are not materially prejudiced as a consequence of such delisting (without considering the circumstances of any individual Holder or the tax or other consequences that may result in any particular jurisdiction).

(B) Without prejudice to the generality of Condition 13(A), where the Shares are, or, upon the delisting, become, listed on any other stock exchange, these Conditions may, in the absolute discretion of the Issuer, be amended to the extent necessary to allow for the substitution of that other stock exchange in place of the Stock Exchange and the Issuer may, without the consent of the Holders, make such adjustments to the entitlements of the Holders on exercise (including, if appropriate, by converting foreign currency amounts at prevailing market rates into the relevant currency) as may be appropriate in the circumstances.

(C) The Issuer shall determine, in its absolute discretion, any adjustment or amendment and its determination shall be conclusive and binding on the Holders save in the case of manifest error. Notice of any adjustments or amendments shall be given to the Holders in accordance with Condition 10 as soon as practicable after they are determined.

14. Good Faith and Commercially Reasonable Manner

Any exercise of discretion by the Issuer under these Conditions will be made in good faith and in a commercially reasonable manner.

15. Governing Law

The CBBCs and the Instrument are governed by and construed in accordance with the laws of the Hong Kong Special Administrative Region of the People's Republic of China ("**Hong Kong**"). The Issuer and each Holder (by its purchase of the CBBCs) submit for all purposes in connection with the CBBCs and the Instrument to the non-exclusive jurisdiction of the courts of Hong Kong.

16. Contracts (Rights of Third Parties) Ordinance

A person who is not a party to these Conditions has no right under the Contracts (Rights of Third Parties) Ordinance (Cap. 623 of the Laws of Hong Kong) to enforce or to enjoy the benefit of any term of the CBBCs.

17. Language

A Chinese translation of these Conditions will be made available for collection during normal office hours from the Sponsor at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. In the event of any inconsistency between the Chinese translation and the English version of these Conditions, the English version of these Conditions shall prevail.

18. Prescription

Claims against the Issuer for payment of any amount in respect of the CBBCs will become void unless made within ten years after the MCE Valuation Period or the Expiry Date (as the case may be) and thereafter, any sums payable in respect of such CBBCs shall be forfeited and shall revert to the Issuer.

Sponsor:
UBS Securities Asia Limited
52nd Floor
Two International Finance Centre
8 Finance Street, Central
Hong Kong

PART B — TERMS AND CONDITIONS OF CASH SETTLED CALLABLE BULL/BEAR CONTRACTS OVER AN INDEX

These Conditions will, together with the supplemental provisions contained in the relevant Supplemental Listing Document, and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Supplemental Listing Document in relation to the issue of any series of CBBCs may specify other terms and conditions which shall, to the extent so specified or to the extent they are inconsistent with these Conditions, replace or modify these Conditions for the purpose of such series of CBBCs.

1. Form, Status, Transfer, Title and Additional Costs and Expenses

(A) The CBBCs (which expression shall, unless the context otherwise requires, include any further CBBCs issued pursuant to Condition 11) relating to the Index are issued in registered form subject to and with the benefit of an instrument by way of deed poll (the "**Instrument**" as defined more fully in the relevant Supplemental Listing Document) executed by UBS AG (the "**Issuer**") acting through its London branch or any of its branches outside Switzerland as it may specify from time to time. The Holders (as defined below) are entitled to the benefit of, are bound by, and are deemed to have notice of all the provisions of the Instrument. A copy of the Instrument is available for inspection at UBS Securities Asia Limited ("**Sponsor**") at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong.

The CBBCs are represented by a global certificate ("**Global Certificate**") registered in the name of HKSCC Nominees Limited (or such other nominee company as may be used by Hong Kong Securities Clearing Company Limited ("**HKSCC**") from time to time in relation to the provision of nominee services to persons admitted for the time being by HKSCC as a participant of CCASS) (the "**Nominee**"). No definitive certificate will be issued. The CBBCs can only be exercised by HKSCC or the Nominee.

(B) The settlement obligation of the Issuer in respect of the CBBCs represents general unsecured contractual obligations of the Issuer and of no other person which rank, and will rank, equally among themselves and pari passu with all other present and future unsecured and unsubordinated contractual obligations of the Issuer, except for obligations accorded preference by mandatory provisions of applicable law.

CBBCs represent general contractual obligations of the Issuer, and are not, nor is it the intention (expressed, implicit or otherwise) of the Issuer to create by the issue of CBBCs deposit liabilities of the Issuer or a debt obligation of any kind.

(C) Transfers of CBBCs may be effected only in Board Lots or integral multiples thereof in CCASS in accordance with the General Rules of CCASS and the CCASS Operational Procedures in effect from time to time (the "**CCASS Rules**").

(D) Each person who is for the time being shown in the register kept by the Issuer in Hong Kong as the holder shall be treated by the Issuer and the Sponsor as the absolute owner and holder of the CBBCs. The expressions "**Holder**" and "**Holders**" shall be construed accordingly.

(E) Holders are responsible for additional costs and expenses in connection with any exercise of the CBBCs including the Exercise Expenses (as defined below) which amount shall, subject to Condition 4(G) and to the extent necessary, be payable to the Issuer and collected from the Holders.

2. Definitions

For the purposes of these Conditions:

"**Board Lot**" has the meaning given to it in the relevant Supplemental Listing Document;

"**Business Day**" means a day (excluding Saturdays) on which the Stock Exchange is scheduled to open for dealings in Hong Kong and banks are open for business in Hong Kong;

"**Call Level**" means the level specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 6;

"**Cash Settlement Amount**" means, for every Board Lot, an amount calculated by the Issuer in accordance with the following formula (and, if appropriate, either (i) converted (if applicable) into the Settlement Currency at the Exchange Rate or, as the case may be, (ii) converted into the Interim Currency at the First Exchange Rate and then (if applicable) converted into Settlement Currency at the Second Exchange Rate):

(i) following a Mandatory Call Event:

(a) in the case of a series of Category R CBBCs, the Residual Value; or

(b) in the case of a series of Category N CBBCs, zero.

(ii) at expiry:

(a) in the case of a series of bull CBBCs:

$$\text{Cash Settlement Amount per Board Lot} = \frac{(\text{Closing Level - Strike Level}) \text{ x one Board Lot x Index Currency Amount}}{\text{Divisor}}$$

(b) in the case of a series of bear CBBCs:

$$\text{Cash Settlement Amount per Board Lot} = \frac{(\text{Strike Level - Closing Level}) \text{ x one Board Lot x Index Currency Amount}}{\text{Divisor}}$$

For the avoidance of doubt, if the Cash Settlement Amount is a negative figure, it shall be deemed to be zero;

"**Category N CBBCs**" means a series of CBBCs where the Call Level is equal to the Strike Level;

"**Category R CBBCs**" means a series of CBBCs where the Call Level is different from the Strike Level;

"**CCASS**" means the Central Clearing and Settlement System;

"**CCASS Settlement Day**" has the meaning ascribed to the term "Settlement Day" in the CCASS Rules, subject to such modification and amendment prescribed by HKSCC from time to time;

"**Closing Level**" means the level specified as such in the relevant Supplemental Listing Document subject to any adjustment in accordance with Condition 6;

"**Divisor**" means the number specified as such in the relevant Supplemental Listing Document;

"**Exchange Rate**" means the rate specified as such in the relevant Supplemental Listing Document;

"**Exercise Expenses**" means any charges or expenses including any taxes or duties which are incurred in respect of the exercise of a Board Lot of CBBCs;

"**Expiry Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**First Exchange Rate**" means the rate specified as such in the relevant Supplemental Listing Document;

"**Index**" means the index specified as such in the relevant Supplemental Listing Document;

"**Index Business Day**" means any day on which the Index Exchange is scheduled to open for trading for its regular trading sessions;

"**Index Compiler**" means the index compiler specified as such in the relevant Supplemental Listing Document;

"**Index Currency Amount**" has the meaning given to it in the relevant Supplemental Listing Document;

"**Index Exchange**" means the index exchange specified as such in the relevant Supplemental Listing Document;

"**Interim Currency**" means the currency specified as such in the relevant Supplemental Listing Document;

"**Listing Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Mandatory Call Event**" occurs when the Spot Level of the Index is, at any time on any Index Business Day during the Observation Period:

(a) in the case of a series of bull CBBCs, at or below the Call Level; or

(b) in the case of a series of bear CBBCs, at or above the Call Level;

"**Market Disruption Event**" means:

(i) the occurrence or existence, on any Trading Day or Index Business Day during the one-half hour period that ends at the close of trading on the Index Exchange, of any of:

   (1) the suspension or material limitation of the trading of a material number of constituent securities that comprise the Index;

   (2) the suspension or material limitation of the trading of options or futures contracts relating to the Index on any exchanges on which such contracts are traded; or

   (3) the imposition of any exchange controls in respect of any currencies involved in determining the Cash Settlement Amount.

   For the purposes of this paragraph (i), (a) the limitation of the number of hours or days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of any relevant exchange, and (b) a limitation on trading imposed by reason of the movements in price exceeding the levels permitted by any relevant exchange will constitute a Market Disruption Event;

(ii) where the Index Exchange is the Stock Exchange, the issuance of the tropical cyclone warning signal number 8 or above or the issuance of a "BLACK" rainstorm signal on any day which either (i) results in the Stock Exchange being closed for trading for the entire day; or (ii) results in the Stock Exchange being closed prior to its regular time for close of trading for the relevant day (for the avoidance of doubt, in the case when the Stock Exchange is scheduled to open for the morning trading session only, closed prior to its regular time for close of trading for the morning session), PROVIDED THAT there shall be no Market Disruption Event solely by reason of the Stock Exchange opening for trading later than its regular time for opening of trading on any day as a result of the tropical cyclone warning signal number 8 or above or the "BLACK" rainstorm signal having been issued;

(iii) a limitation or closure of the Index Exchange due to any unforeseen circumstances; or

(iv) any circumstances beyond the control of the Issuer in which the Closing Level or, if applicable, the Exchange Rate, the First Exchange Rate or the Second Exchange Rate (as the case may be) cannot be determined by the Issuer in the manner set out in these Conditions or in such other manner as the Issuer considers appropriate at such time after taking into account all the relevant circumstances.

"**Maximum Index Level**" means the highest Spot Level of the Index during the MCE Valuation Period;

"**MCE Valuation Period**" means the period commencing from and including the moment upon which the Mandatory Call Event occurs (the trading session during which the Mandatory Call Event occurs is the "**1st Session**") and up to the end of the trading session on the Index Exchange immediately following the 1st Session ("**2nd Session**") unless, in the determination of the Issuer in its good faith, the 2nd Session for any reason (including, without limitation, a Market Disruption Event occurring and subsisting in the 2nd Session) does not contain any continuous period of 1 hour or more than 1 hour during which Spot Levels are available, the MCE Valuation Period shall be extended to the end of the subsequent trading session on the Index Exchange following the 2nd Session during which Spot Levels are available for a continuous period of at least 1 hour notwithstanding the existence or continuance of a Market Disruption Event in such postponed trading session, unless the Issuer determines in its good faith that each trading session on each of the four Index Business Days immediately following the date on which the Mandatory Call Event occurs does not contain any continuous period of 1 hour or more than 1 hour during which Spot Levels are available. In that case:

(i) the period commencing from the 1st Session up to, and including, the last trading session of the fourth Index Business Day on the Index Exchange immediately following the date on which the Mandatory Call Event occurs shall be deemed to be the MCE Valuation Period; and

(ii) the Issuer shall determine the Maximum Index Level or the Minimum Index Level (as the case may be) having regard to the then prevailing market conditions, the last reported Spot Level of the Index and such other factors as the Issuer may determine to be relevant in its good faith.

For the avoidance of doubt, all Spot Levels available throughout the extended MCE Valuation Period shall be taken into account to determine the Maximum Index Level or the Minimum Index Level (as the case may be) for the calculation of the Residual Value.

For the purposes of this definition,

(a) the pre-opening session, the morning session and, in the case of half day trading, the closing auction session (if any) of the same day; and

(b) the afternoon session and the closing auction session (if any) of the same day,

shall each be considered as one trading session only;

"**Minimum Index Level**" means the lowest Spot Level of the Index during the MCE Valuation Period;

"**Observation Commencement Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Observation Period**" means the period commencing from and including the Observation Commencement Date and ending on and including the Trading Day immediately preceding the Expiry Date;

"**Post MCE Trades**" has the meaning given to it in the relevant Supplemental Listing Document, subject to such modification and amendment prescribed by the Stock Exchange from time to time;

"**Residual Value**" means, for every Board Lot, an amount calculated by the Issuer in accordance with the following formula (and, if appropriate, either (a) converted (if applicable) into the Settlement Currency at the Exchange Rate or, as the case may be, (b) converted into the Interim Currency at the First Exchange Rate and then (if applicable) converted into Settlement Currency at the Second Exchange Rate):

(i) in the case of a series of bull CBBCs:

$$\text{Residual Value per Board Lot} = \frac{(\text{Minimum Index Level - Strike Level}) \text{ x one Board Lot x Index Currency Amount}}{\text{Divisor}}$$

(ii) in the case of a series of bear CBBCs:

$$\text{Residual Value per Board Lot} = \frac{(\text{Strike Level - Maximum Index Level}) \text{ x one Board Lot x Index Currency Amount}}{\text{Divisor}}$$

"**Second Exchange Rate**" means the rate specified as such in the relevant Supplemental Listing Document;

"**Settlement Currency**" means the currency specified as such in the relevant Supplemental Listing Document;

"**Settlement Date**" means the third CCASS Settlement Day after (i) the end of the MCE Valuation Period or (ii) the later of: (a) the Expiry Date; and (b) the day on which the Closing Level is determined in accordance with the Conditions (as the case may be);

"**Spot Level**" means the spot level of the Index as compiled and published by the Index Compiler;

"**Stock Exchange**" means The Stock Exchange of Hong Kong Limited;

"**Strike Level**" means the level specified as such in the relevant Supplemental Listing Document subject to any adjustment in accordance with Condition 6;

"**Trading Day**" means any day on which the Stock Exchange is scheduled to open for trading for its regular trading sessions; and

"**Valuation Date**" means the date specified as such in the relevant Supplemental Listing Document.

Other capitalised terms shall, unless otherwise defined herein, bear the meaning ascribed to them in the Base Listing Document, any addendum to the Base Listing Document, the relevant Supplemental Listing Document or the Global Certificate.

3. Hedging Disruption and Illegality or Impracticability

(A) Hedging Disruption

(i) *Notification.* The Issuer shall as soon as reasonably practicable give notice to the Holders in accordance with Condition 10:

(1) if it determines that a Hedging Disruption Event has occurred; and

(2) of the consequence of such Hedging Disruption Event as determined by the Issuer pursuant to Condition 3(A)(iii).

(ii) *Hedging Disruption Event*. A "**Hedging Disruption Event**" occurs if the Issuer determines in good faith and in a commercially reasonable manner that it is or has become not reasonably practicable or it has otherwise become undesirable, for any reason, for the Issuer wholly or partially (a) to establish, re-establish, substitute or maintain a relevant hedging transaction (including, without limitation, any hedging transaction with respect to options or futures relating to the Index, or any currency in which the components of the Index are denominated) (a "**Relevant Hedging Transaction**") it deems necessary or desirable to hedge the Issuer's obligations in respect of the CBBCs or (b) to freely realize, recover, receive, repatriate, remit or transfer the proceeds of the Relevant Hedging Transactions between accounts within the jurisdiction of the Relevant Hedging Transactions (the "**Affected Jurisdiction**") or from accounts within the Affected Jurisdiction to accounts outside of the Affected Jurisdiction. The reasons for such determination by the Issuer may include, but are not limited to, the following:

(1) any material illiquidity in the market for the components of the Index;

(2) a change in any applicable law (including, without limitation, any tax law) or the promulgation of, or change in, the interpretation of any court, tribunal or regulatory authority with competent jurisdiction of any applicable law (including any action taken by a taxing authority);

(3) a material decline in the creditworthiness of a party with whom the Issuer has entered into any such Relevant Hedging Transaction; or

(4) the general unavailability of:

(A) market participants who will agree to enter into a Relevant Hedging Transaction; or

(B) market participants who will so enter into a Relevant Hedging Transaction on commercially reasonable terms.

(iii) *Consequences.* The Issuer, in the event of a Hedging Disruption Event, may determine to:

(1) terminate the CBBCs. In such circumstances the Issuer will, however, if and to the extent permitted by the applicable law, pay to each Holder in respect of each CBBC held by such Holder an amount that the Issuer determines in good faith and in a commercially reasonable manner to be the fair market value of the CBBC immediately prior to such termination less the cost to the Issuer of unwinding any related hedging arrangements. Payment will be made to the Holder in such manner as shall be notified to the Holder in accordance with Condition 10; or

(2) make any other adjustment to the Conditions as it considers appropriate in order to maintain the theoretical value of the CBBCs after adjusting for the relevant Hedging Disruption Event.

(B) Illegality or Impracticability

The Issuer is entitled to terminate the CBBCs if it determines in good faith and in a commercially reasonable manner that, for reasons beyond its control, it has become or it will become illegal or impracticable:

(i) for it to perform its obligations under the CBBCs in whole or in part as a result of:

(1) the adoption of, or any change in, any relevant law or regulation (including any tax law); or

(2) the promulgation of, or any change in, the interpretation by any court, tribunal, governmental, administrative, legislative, regulatory or judicial authority or power with competent jurisdiction of any relevant law or regulation (including any tax law),

(each of (1) and (2), a "**Change in Law Event**"); or

(ii) for it or any of its affiliates to maintain the Issuer's hedging arrangements with respect to the CBBCs due to a Change in Law Event.

Upon the occurrence of a Change in Law Event, the Issuer will, if and to the extent permitted by the applicable law or regulation, pay to each Holder a cash amount that the Issuer determines in good faith and in a commercially reasonable manner to be the fair market value in respect of each CBBC held by such Holder immediately prior to such termination (ignoring such illegality or impracticability) less the cost to the Issuer of unwinding any related hedging arrangement as determined by the Issuer in its sole and absolute discretion. Payment will be made to each Holder in such manner as shall be notified to the Holder in accordance with Condition 10.

4. Exercise of CBBCs

(A) CBBCs may only be exercised in Board Lots or integral multiples thereof.

(B) If no Mandatory Call Event has occurred during the Observation Period, the CBBCs will be deemed to be automatically exercised on the Expiry Date.

(C) Mandatory Call Event

(i) Subject to paragraph (ii) below, following a Mandatory Call Event, the CBBCs will terminate automatically and the Issuer shall have no further obligation under the CBBCs except for the payment of the Cash Settlement Amount (if any) following the Mandatory Call Event on the relevant Settlement Date. The Issuer will give notice to the Holders in accordance with Condition 10. Trading in the CBBCs will be suspended immediately upon the occurrence of a Mandatory Call Event and any Post MCE Trades will be cancelled and will not be recognised by the Issuer or the Stock Exchange.

Revocation

(ii) A Mandatory Call Event is irrevocable unless it is triggered as a result of any of the following events:

(1) system malfunction or other technical errors of Hong Kong Exchanges and Clearing Limited ("**HKEX**") (such as the setting up of wrong Call Level and other parameters); or

(2) manifest errors caused by the relevant third party price source where applicable (such as miscalculation of the index level by the relevant index compiler);

and

(A) in the case of a system malfunction or other technical errors prescribed in paragraph (1) above, such event is reported by the Stock Exchange to the Issuer and the Issuer and the Stock Exchange mutually agree that such Mandatory Call Event is to be revoked; and

(B) in the case of an error by the relevant price source prescribed in paragraph (2) above, such event is reported by the Issuer to the Stock Exchange and the Issuer and the Stock Exchange mutually agree that such Mandatory Call Event is to be revoked,

and in each case, such mutual agreement must be reached no later than 30 minutes before the commencement of trading (including the pre-opening session) (Hong Kong time) on the Trading Day of the Stock Exchange immediately following the day on which the Mandatory Call Event occurs or such other time frame as prescribed by the Stock Exchange from time to time.

(D) Every Board Lot of CBBCs entitles the Holder to receive from the Issuer on the Settlement Date the Cash Settlement Amount (if any).

(E) Any Exercise Expenses which are not determined by the Issuer by the Business Day after the MCE Valuation Period or the Expiry Date (as the case may be) and deducted from the Cash Settlement Amount prior to delivery to the Holders in accordance with this Condition 4, shall be notified by the Issuer to the Holders as soon as practicable after determination thereof and shall be paid by the Holders to the Issuer immediately upon demand.

(F) In the event that the CBBCs have been exercised or have expired worthless, the Issuer will, with effect from the first Business Day following the MCE Valuation Period or Expiry Date, as the case may be, remove the name of each Holder from the register of Holders in respect of such CBBCs and thereby cancel the relevant CBBCs and, if applicable, cancel the Global Certificate.

(G) Upon exercise following a Mandatory Call Event or on the Expiry Date in accordance with these Conditions, the Issuer will pay the Cash Settlement Amount minus the determined Exercise Expenses to the relevant Holder. If the Cash Settlement Amount is equal to or less than the determined Exercise Expenses, no amount is payable.

The aggregate Cash Settlement Amount minus the determined aggregate Exercise Expenses shall be despatched no later than the Settlement Date, by crediting that amount, in accordance with the CCASS Rules, to the relevant bank account designated by a Holder (the "**Designated Bank Account**").

If as a result of an event beyond the control of the Issuer ("**Settlement Disruption Event**"), it is not possible for the Issuer to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of a Holder on the original Settlement Date, the Issuer shall use its reasonable endeavours to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Holder as soon as reasonably practicable after the original Settlement Date. The Issuer will not be liable to the Holder for any interest in respect of the amount due or any loss or damage that such Holder may suffer as a result of the existence of a Settlement Disruption Event.

If the Issuer determines, in its sole discretion, that a Market Disruption Event has occurred on the Valuation Date, then the Issuer shall determine the Closing Level on the basis of its good faith estimate of the Closing Level that would have prevailed on that day but for the occurrence of the Market Disruption Event provided that the Issuer may, if applicable, but shall not be obliged to, determine such Closing Level by having regard to the manner in which futures contracts relating to the Index are calculated.

(H) None of the Issuer, the Sponsor or their respective agents shall have any responsibility for any errors or omissions in the calculation and dissemination of any variables published by a third party and used in any calculation made pursuant to these Conditions or in the calculation of the Cash Settlement Amount arising from such errors or omissions.

The purchase of CBBCs does not confer on any Holder of such CBBCs any rights (whether in respect of voting, distributions or otherwise) in relation to the constituent securities, contracts, commodities or currencies comprising the Index.

(I) Exercise and settlement of the CBBCs is subject to all applicable laws, rules, regulations and guidelines in force at the relevant time and neither the Issuer nor the Sponsor shall incur any liability whatsoever if it is unable to effect the transactions contemplated, after using all reasonable efforts, as a result of any such laws, rules, regulations or guidelines. Neither the Issuer nor the Sponsor shall under any circumstances be liable for any acts or defaults of the CCASS in relation to the performance of its duties in relation to the CBBCs.

(J) Subject to Condition 4(C)(ii), trading in CBBCs on the Stock Exchange shall cease (i) immediately upon the occurrence of a Mandatory Call Event or (ii) at the close of trading for the Trading Day immediately preceding the Expiry Date (for the avoidance of doubt, in the case when the Stock Exchange is scheduled to open for the morning session only, at the close of trading for the morning session), whichever is the earlier. All Post MCE Trades will be invalid and will be cancelled, and will not be recognised by the Issuer or the Stock Exchange.

5. Sponsor

(A) The Sponsor will not assume any obligation or duty to or any relationship or agency or trust for the Holders.

(B) The Issuer reserves the right, subject to the appointment of a successor, at any time to vary or terminate the appointment of the initial Sponsor and to appoint another agent provided that it will at all times maintain a sponsor in Hong Kong for so long as the CBBCs are listed on the Stock Exchange. Notice of any such termination or appointment will be given to the Holders in accordance with Condition 10.

6. Adjustments to the Index

(A) *Successor Index Compiler Calculates and Reports Index*. If the Index is (i) not calculated and announced by the Index Compiler but is calculated and published by a successor to the Index Compiler (the "**Successor Index Compiler**") acceptable to the Issuer or (ii) replaced by a successor index using, in the determination of the Issuer, the same or a substantially similar formula for and method of calculation as used in the calculation of the Index, then the Index will be deemed to be the index so calculated and announced by the Successor Index Compiler or that successor index, as the case may be.

(B) *Modification and Cessation of Calculation of Index*. If (i) on or prior to the Valuation Date the Index Compiler or (if applicable) the Successor Index Compiler makes a material change in the formula for or the method of calculating the Index or in any other way materially modifies the Index (other than a modification prescribed in that formula or method to maintain the Index in the event of changes in constituent securities, contracts, commodities or currencies and other routine events), or (ii) on the Valuation Day the Index Compiler or (if applicable) the Successor Index Compiler fails to calculate and publish the Index (other than as a result of a Market Disruption Event), then the Issuer shall determine the Closing Level using, in lieu of a published level for the Index, the level for the Index as at that Index Business Day as determined by the Issuer in accordance with the formula for and method of calculating the Index last in effect prior to that change or failure, but using only those securities, contracts, commodities or currencies that comprised the Index immediately prior to that change or failure (other than those securities that have since ceased to be listed on the relevant exchange).

(C) *Other Adjustments.* Without prejudice to and notwithstanding any prior adjustment(s) made pursuant to the applicable Conditions, the Issuer may (but shall not be obliged to) make such other adjustments to the terms and conditions of the CBBCs as appropriate where any event (including the events as contemplated in the applicable Conditions) occurs and irrespective of, in substitution for, or in addition to the provisions contemplated in the applicable Conditions, provided that such adjustment is:

(i) not materially prejudicial to the interests of the Holders generally (without considering the circumstances of any individual Holder or the tax or other consequences of such adjustment in any particular jurisdiction); or

(ii) determined by the Issuer in good faith to be appropriate and commercially reasonable.

(D) *Notice of Adjustments.* All determinations made by the Issuer pursuant hereto will be conclusive and binding on the Holders. The Issuer will give, or procure that there is given, notice as soon as practicable of any adjustment and of the date from which such adjustment is effective by publication in accordance with Condition 10.

7. Purchase

The Issuer or any of its subsidiaries may at any time purchase CBBCs at any price in the open market or by tender or by private treaty. Any CBBCs so purchased may be held or resold or surrendered for cancellation.

8. Global Certificate

A Global Certificate representing the CBBCs will be deposited with CCASS in the name of HKSCC Nominees Limited. The Global Certificate must be executed manually on behalf of the Issuer by authorised officer(s) or attorney(s) of the Issuer.

9. Meetings of Holders and Modification

(A) *Meetings of Holders.* The Instrument contains provisions for convening meetings of the Holders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution (as defined in the Instrument) of a modification of the provisions of the CBBCs or of the Instrument.

Any resolution to be passed in a meeting of the Holders shall be decided by poll. Such a meeting may be convened by the Issuer or by Holders holding not less than 10 per cent. of the CBBCs for the time being remaining unexercised. The quorum at any such meeting for passing an Extraordinary Resolution will be two or more persons holding or representing not less than 25 per cent. of the CBBCs for the time being remaining unexercised, or at any adjourned meeting two or more persons being or representing Holders whatever the number of CBBCs so held or represented.

A resolution will be an Extraordinary Resolution when it has been passed at a duly convened meeting by not less than three-quarters of the votes cast by such Holders who, being entitled to do so, vote in person or by proxy.

An Extraordinary Resolution passed at any meeting of the Holders shall be binding on all the Holders, whether or not they are present at the meeting.

Resolutions can be passed in writing without a meeting of the Holders being held if passed unanimously.

(B) *Modification.* The Issuer may, without the consent of the Holders, effect any modification of the terms and conditions of the CBBCs or the Instrument which, in the opinion of the Issuer, is (i) not materially prejudicial to the interests of the Holders generally (without considering the circumstances of any individual Holder or the tax or other consequences of such modification in any particular jurisdiction); (ii) of a formal, minor or technical nature; (iii) made to correct a manifest error; or (iv) necessary in order to comply with mandatory provisions of the laws or regulations of Hong Kong. Any such modification shall be binding on the Holders and shall be notified to them by the Issuer as soon as practicable thereafter in accordance with Condition 10.

10. Notices

All notices to the Holders will be validly given if published in English and in Chinese on the HKEX website. In such circumstances, the Issuer shall not be required to despatch copies of the notice to the Holders.

11. Further Issues

The Issuer shall be at liberty from time to time, without the consent of the Holders, to create and issue further CBBCs so as to form a single series with the CBBCs.

12. Good Faith and Commercially Reasonable Manner

Any exercise of discretion by the Issuer under these Conditions will be made in good faith and in a commercially reasonable manner.

13. Governing Law

The CBBCs and the Instrument are governed by and construed in accordance with the laws of the Hong Kong Special Administrative Region of the People's Republic of China ("**Hong Kong**"). The Issuer and each Holder (by its purchase of the CBBCs) submit for all purposes in connection with the CBBCs and the Instrument to the non-exclusive jurisdiction of the courts of Hong Kong.

14. Contracts (Rights of Third Parties) Ordinance

A person who is not a party to these Conditions has no right under the Contracts (Rights of Third Parties) Ordinance (Cap. 623 of the Laws of Hong Kong) to enforce or to enjoy the benefit of any term of the CBBCs.

15. Language

A Chinese translation of these Conditions will be made available for collection during normal office hours from the Sponsor at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. In the event of any inconsistency between the Chinese translation and the English version of these Conditions, the English version of these Conditions shall prevail.

16. Prescription

Claims against the Issuer for payment of any amount in respect of the CBBCs will become void unless made within ten years after the MCE Valuation Period or the Expiry Date (as the case may be) and thereafter, any sums payable in respect of such CBBCs shall be forfeited and shall revert to the Issuer.

Sponsor:
UBS Securities Asia Limited
52nd Floor
Two International Finance Centre
8 Finance Street, Central
Hong Kong

PART C — TERMS AND CONDITIONS OF CASH SETTLED CALLABLE BULL/BEAR CONTRACTS OVER SINGLE UNIT TRUSTS

These Conditions will, together with the supplemental provisions contained in the relevant Supplemental Listing Document, and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Supplemental Listing Document in relation to the issue of any series of CBBCs may specify other terms and conditions which shall, to the extent so specified or to the extent they are inconsistent with these Conditions, replace or modify these Conditions for the purpose of such series of CBBCs.

1. Form, Status, Transfer, Title and Additional Costs and Expenses

(A) The CBBCs (which expression shall, unless the context otherwise requires, include any further CBBCs issued pursuant to Condition 12) relating to the Units of the Trust are issued in registered form subject to and with the benefit of an instrument by way of deed poll (the "**Instrument**" as defined more fully in the relevant Supplemental Listing Document) executed by UBS AG (the "**Issuer**") acting through its London branch or any of its branches outside Switzerland as it may specify from time to time. The Holders (as defined below) are entitled to the benefit of, are bound by, and are deemed to have notice of all the provisions of the Instrument. A copy of the Instrument is available for inspection at the offices of UBS Securities Asia Limited ("**Sponsor**") at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong.

The CBBCs are represented by a global certificate ("**Global Certificate**") registered in the name of HKSCC Nominees Limited (or such other nominee company as may be used by Hong Kong Securities Clearing Company Limited ("**HKSCC**") from time to time in relation to the provision of nominee services to persons admitted for the time being by HKSCC as a participant of CCASS) (the "**Nominee**"). No definitive certificate will be issued. The CBBCs can only be exercised by HKSCC or the Nominee.

(B) The settlement obligation of the Issuer in respect of the CBBCs represents general unsecured contractual obligations of the Issuer and of no other person which rank, and will rank, equally among themselves and pari passu with all other present and future unsecured and unsubordinated contractual obligations of the Issuer, except for obligations accorded preference by mandatory provisions of applicable law.

CBBCs represent general contractual obligations of the Issuer, and are not, nor is it the intention (expressed, implicit or otherwise) of the Issuer to create by the issue of CBBCs deposit liabilities of the Issuer or a debt obligation of any kind.

(C) Transfers of CBBCs may be effected only in Board Lots or integral multiples thereof in CCASS in accordance with the General Rules of CCASS and the CCASS Operational Procedures in effect from time to time (the "**CCASS Rules**").

(D) Each person who is for the time being shown in the register kept by the Issuer in Hong Kong as the holder shall be treated by the Issuer and the Sponsor as the absolute owner and holder of the CBBCs. The expression "**Holder**" and "**Holders**" shall be construed accordingly.

(E) Holders are responsible for additional costs and expenses in connection with any exercise of the CBBCs including the Exercise Expenses (as defined below) which amount shall, subject to Condition 4(G) and to the extent necessary, be payable to the Issuer and collected from the Holders.

2. Definitions

For the purposes of these Conditions:

"**Board Lot**" has the meaning given to it in the relevant Supplemental Listing Document;

"**Business Day**" means a day (excluding Saturdays) on which the Stock Exchange is scheduled to open for dealings in Hong Kong and banks are open for business in Hong Kong;

"**Call Price**" means the price specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 6;

"**Cash Settlement Amount**" means, for every Board Lot, an amount in the Settlement Currency calculated by the Issuer in accordance with the following formula:

(i) following a Mandatory Call Event:

(a) in the case of a series of Category R CBBCs, the Residual Value; or

(b) in the case of a series of Category N CBBCs, zero.

(ii) at expiry:

(a) in the case of a series of bull CBBCs:

$$\text{Cash Settlement Amount per Board Lot} = \frac{\text{Entitlement x (Closing Price - Strike Price) x one Board Lot}}{\text{Number of CBBC(s) per Entitlement}}$$

(b) in the case of a series of bear CBBCs:

$$\text{Cash Settlement Amount per Board Lot} = \frac{\text{Entitlement x (Strike Price - Closing Price) x one Board Lot}}{\text{Number of CBBC(s) per Entitlement}}$$

For the avoidance of doubt, if the Cash Settlement Amount is a negative figure, it shall be deemed to be zero;

"**Category N CBBCs**" means a series of CBBCs where the Call Price is equal to the Strike Price;

"**Category R CBBCs**" means a series of CBBCs where the Call Price is different from the Strike Price;

"**CCASS**" means the Central Clearing and Settlement System;

"**CCASS Settlement Day**" has the meaning ascribed to the term "Settlement Day" in the CCASS Rules, subject to such modification and amendment prescribed by HKSCC from time to time;

"**Closing Price**" means the closing price of one Unit (as derived from the Daily Quotation Sheet of the Stock Exchange, subject to any adjustment to such closing price as may be necessary to reflect any event as contemplated in Condition 6 such as capitalisation, rights issue, distribution or the like) on the Valuation Date;

"**Entitlement**" means the number specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 6;

"**Exercise Expenses**" means any charges or expenses including any taxes or duties which are incurred in respect of the exercise of a Board Lot of CBBCs;

"**Expiry Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Listing Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Mandatory Call Event**" occurs when the Spot Price of the Units on any Trading Day during the Observation Period is:

(i) in the case of a series of bull CBBCs, at or below the Call Price; or

(ii) in the case of a series of bear CBBCs, at or above the Call Price;

"**Market Disruption Event**" means:

(1) the occurrence or existence on any Trading Day during the one-half hour period that ends at the close of trading of any suspension of or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the Stock Exchange or otherwise) on the Stock Exchange in (a) the Units; or (b) any options or futures contracts relating to the Units if, in any such case, such suspension or limitation is, in the determination of the Issuer, material;

(2) the issuance of the tropical cyclone warning signal number 8 or above or the issuance of a "BLACK" rainstorm signal on any day which either (i) results in the Stock Exchange being closed for trading for the entire day; or (ii) results in the Stock Exchange being closed prior to its regular time for close of trading for the relevant day (for the avoidance of doubt, in the case when the Stock Exchange is scheduled to open for the morning trading session only, closed prior to its regular time for close of trading for the morning session), PROVIDED THAT there shall be no Market Disruption Event solely by reason of the Stock Exchange opening for trading later than its regular time for opening of trading on any day as a result of the tropical cyclone warning signal number 8 or above or the "BLACK" rainstorm signal having been issued; or

(3) a limitation or closure of the Stock Exchange due to any unforeseen circumstances;

"**Maximum Trade Price**" means the highest Spot Price of the Units (subject to any adjustment to such Spot Price as may be necessary to reflect any event as contemplated in Condition 6 such as capitalisation, rights issue, distribution or the like) during the MCE Valuation Period;

"**MCE Valuation Period**" means the period commencing from and including the moment upon which the Mandatory Call Event occurs (the trading session during which the Mandatory Call Event occurs is the "**1st Session**") and up to the end of the trading session on the Stock Exchange immediately following the 1st Session ("**2nd Session**") unless, in the determination of the Issuer in its good faith, the 2nd Session for any reason (including, without limitation, a Market Disruption Event occurring and subsisting in the 2nd Session) does not contain any continuous period of 1 hour or more than 1 hour during which trading in the Units is permitted on the Stock Exchange with no limitation imposed, the MCE Valuation Period shall be extended to the end of the subsequent trading session following the 2nd Session during which trading in the Units is permitted on the Stock Exchange with no limitation imposed for a continuous period of at least 1 hour notwithstanding the existence or continuance of a Market Disruption Event in such postponed trading session, unless the Issuer determines in its good faith that each trading session on each of the four Trading Days immediately following the date on which the Mandatory Call Event occurs does not contain any continuous period of 1 hour or more than 1 hour during which trading in the Units is permitted on the Stock Exchange with no limitation imposed. In that case:

(i) the period commencing from the 1st Session up to, and including, the last trading session on the Stock Exchange of the fourth Trading Day immediately following the date on which the Mandatory Call Event occurs shall be deemed to be the MCE Valuation Period; and

(ii) the Issuer shall determine the Maximum Trade Price or the Minimum Trade Price (as the case may be) having regard to the then prevailing market conditions, the last reported Spot Price and such other factors as the Issuer may determine to be relevant in its good faith.

For the avoidance of doubt, all Spot Prices available throughout the extended MCE Valuation Period shall be taken into account to determine the Maximum Trade Price or the Minimum Trade Price (as the case may be) for the calculation of the Residual Value.

For the purposes of this definition,

(a) the pre-opening session, the morning session and, in the case of half day trading, the closing auction session (if any) of the same day; and

(b) the afternoon session and the closing auction session (if any) of the same day,

shall each be considered as one trading session only;

"**Minimum Trade Price**" means the lowest Spot Price of the Units (subject to any adjustment to such Spot Price as may be necessary to reflect any event as contemplated in Condition 6 such as capitalisation, rights issue, distribution or the like) during the MCE Valuation Period;

"**Observation Commencement Date**" means the date specified as such in the relevant Supplemental Listing Document;

"**Observation Period**" means the period commencing from and including the Observation Commencement Date and ending on and including the Trading Day immediately preceding the Expiry Date;

"**Post MCE Trades**" has the meaning given to it in the relevant Supplemental Listing Document, subject to such modification and amendment prescribed by the Stock Exchange from time to time;

"**Residual Value**" means, for every Board Lot, an amount in the Settlement Currency calculated by the Issuer in accordance with the following formula:

(i) in the case of a series of bull CBBCs:

$$\text{Residual Value per Board Lot} = \frac{\text{Entitlement x (Minimum Trade Price - Strike Price) x one Board Lot}}{\text{Number of CBBC(s) per Entitlement}}$$

(ii) in the case of a series of bear CBBCs:

$$\text{Residual Value per Board Lot} = \frac{\text{Entitlement x (Strike Price - Maximum Trade Price) x one Board Lot}}{\text{Number of CBBC(s) per Entitlement}}$$

"**Settlement Currency**" means the currency specified as such in the relevant Supplemental Listing Document;

"**Settlement Date**" means the third CCASS Settlement Day after (i) the end of the MCE Valuation Period or (ii) the later of: (a) the Expiry Date; and (b) the day on which the Closing Price is determined in accordance with the Conditions (as the case may be);

"**Spot Price**" means:

(a) in respect of a continuous trading session of the Stock Exchange, the price per Unit concluded by means of automatic order matching on the Stock Exchange as reported in the official real-time dissemination mechanism for the Stock Exchange during such continuous trading session in accordance with the Trading Rules, excluding direct business (as defined in the Trading Rules); and

(b) in respect of a pre-opening session or a closing auction session (if applicable) of the Stock Exchange, as the case may be, the final Indicative Equilibrium Price (as defined in the Trading Rules) of the Unit (if any) calculated at the end of the pre-order matching period of such pre-opening session or closing auction session (if applicable), as the case may be, in accordance with the Trading Rules, excluding direct business (as defined in the Trading Rules),

subject to such modification and amendment prescribed by the Stock Exchange from time to time;

"**Stock Exchange**" means The Stock Exchange of Hong Kong Limited;

"**Strike Price**" means the price specified as such in the relevant Supplemental Listing Document, subject to any adjustment in accordance with Condition 6;

"**Trading Day**" means any day on which the Stock Exchange is scheduled to open for trading for its regular trading sessions;

"**Trading Rules**" means the Rules and Regulations of the Exchange prescribed by the Stock Exchange from time to time;

"**Trust**" means the trust specified as such in the relevant Supplemental Listing Document;

"**Unit**" means the unit specified as such in the relevant Supplemental Listing Document; and

"**Valuation Date**" means the Trading Day immediately preceding the Expiry Date unless, in the determination of the Issuer, a Market Disruption Event has occurred on that day in which case, the Valuation Date shall be the first succeeding Trading Day on which the Issuer determines that there is no Market Disruption Event, unless the Issuer determines that there is a Market Disruption Event occurring on each of the four Trading Days immediately following the original date which (but for the Market Disruption Event) would have been the Valuation Date. In that case:

(a) the fourth Trading Day immediately following the original date shall be deemed to be the Valuation Date (regardless of the Market Disruption Event); and

(b) the Issuer shall determine the Closing Price having regard to the then prevailing market conditions, the last reported trading price of the Unit on the Stock Exchange and such other factors as the Issuer determines to be relevant.

Other capitalized terms shall, unless otherwise defined herein, have the meaning ascribed to them in the Base Listing Document, any addendum to the Base Listing Document, the relevant Supplemental Listing Document or the Global Certificate.

3. Hedging Disruption and Illegality or Impracticability

(A) Hedging Disruption

(i) *Notification.* The Issuer shall as soon as reasonably practicable give notice to the Holders in accordance with Condition 10:

(1) if it determines that a Hedging Disruption Event has occurred; and

(2) of the consequence of such Hedging Disruption Event as determined by the Issuer pursuant to Condition 3(A)(iii).

(ii) *Hedging Disruption Event*. A "**Hedging Disruption Event**" occurs if the Issuer determines in good faith and in a commercially reasonable manner that it is or has become not reasonably practicable or it has otherwise become undesirable, for any reason, for the Issuer wholly or partially to establish, re-establish, substitute or maintain a relevant hedging transaction (a "**Relevant Hedging Transaction**") it deems necessary or desirable to hedge the Issuer's obligations in respect of the CBBCs. The reasons for such determination by the Issuer may include, but are not limited to, the following:

(1) any material illiquidity in the market for the Units;

(2) a change in any applicable law (including, without limitation, any tax law) or the promulgation of, or change in, the interpretation of any court, tribunal or regulatory authority with competent jurisdiction of any applicable law (including any action taken by a taxing authority);

(3) a material decline in the creditworthiness of a party with whom the Issuer has entered into any such Relevant Hedging Transaction; or

(4) the general unavailability of:

(A) market participants who will agree to enter into a Relevant Hedging Transaction; or

(B) market participants who will so enter into a Relevant Hedging Transaction on commercially reasonable terms.

(iii) *Consequences.* The Issuer, in the event of a Hedging Disruption Event, may determine to:

(1) terminate the CBBCs. In such circumstances the Issuer will, however, if and to the extent permitted by the applicable law, pay to each Holder in respect of each CBBC held by such Holder an amount that the Issuer determines in good faith and in a commercially reasonable manner to be the fair market value of the CBBC immediately prior to such termination less the cost to the Issuer of unwinding any related hedging arrangements. Payment will be made to the Holder in such manner as shall be notified to the Holder in accordance with Condition 10; or

(2) make any other adjustment to the Conditions as it considers appropriate in order to maintain the theoretical value of the CBBCs after adjusting for the relevant Hedging Disruption Event.

(B) Illegality or Impracticability

The Issuer is entitled to terminate the CBBCs if it determines in good faith and in a commercially reasonable manner that, for reasons beyond its control, it has become or it will become illegal or impracticable:

(i) for it to perform its obligations under the CBBCs in whole or in part as a result of:

(1) the adoption of, or any change in, any relevant law or regulation (including any tax law); or

(2) the promulgation of, or any change in, the interpretation by any court, tribunal, governmental, administrative, legislative, regulatory or judicial authority or power with competent jurisdiction of any relevant law or regulation (including any tax law),

(each of (1) and (2), a "**Change in Law Event**"); or

(ii) for it or any of its affiliates to maintain the Issuer's hedging arrangements with respect to the CBBCs due to a Change in Law Event.

Upon the occurrence of a Change in Law Event, the Issuer will, if and to the extent permitted by the applicable law or regulation, pay to each Holder a cash amount that the Issuer determines in good faith and in a commercially reasonable manner to be the fair market value in respect of each CBBC held by such Holder immediately prior to such termination (ignoring such illegality or impracticability) less the cost to the Issuer of unwinding any related hedging arrangement as determined by the Issuer in its sole and absolute discretion. Payment will be made to each Holder in such manner as shall be notified to the Holder in accordance with Condition 10.

4. Exercise of CBBCs

(A) CBBCs may only be exercised in Board Lots or integral multiples thereof.

(B) If no Mandatory Call Event has occurred during the Observation Period, the CBBCs will be deemed to be automatically exercised on the Expiry Date.

(C) Mandatory Call Event

(i) Subject to paragraph (ii) below, following a Mandatory Call Event, the CBBCs will terminate automatically and the Issuer shall have no further obligation under the CBBCs except for the payment of the Cash Settlement Amount (if any) following the Mandatory Call Event on the relevant Settlement Date. The Issuer will give notice to the Holders in accordance with Condition 10. Trading in the CBBCs will be suspended immediately upon the occurrence of a Mandatory Call Event and all Post MCE Trades will be cancelled and will not be recognised by the Issuer or the Stock Exchange.

Revocation

(ii) A Mandatory Call Event is irrevocable unless it is triggered as a result of any of the following events:

(1) system malfunction or other technical errors of Hong Kong Exchanges and Clearing Limited ("**HKEX**") (such as the setting up of wrong Call Price and other parameters); or

(2) manifest errors caused by the relevant third party price source where applicable;

and

(A) in the case of a system malfunction or other technical errors prescribed in paragraph (1) above, such event is reported by the Stock Exchange to the Issuer and the Issuer and the Stock Exchange mutually agree that such Mandatory Call Event is to be revoked; and

(B) in the case of an error by the relevant price source prescribed in paragraph (2) above, such event is reported by the Issuer to the Stock Exchange and the Issuer and the Stock Exchange mutually agree that such Mandatory Call Event is to be revoked,

in each case, such mutual agreement must be reached no later than 30 minutes before the commencement of trading (including the pre-opening session) (Hong Kong time) on the Trading Day of the Stock Exchange immediately following the day on which the Mandatory Call Event occurs or such other time frame as prescribed by the Stock Exchange from time to time.

(D) Every Board Lot of CBBCs entitles the Holder to receive from the Issuer on the Settlement Date the Cash Settlement Amount (if any).

(E) Any Exercise Expenses which are not determined by the Issuer by the Business Day after the MCE Valuation Period or the Expiry Date (as the case may be) and deducted from the Cash Settlement Amount prior to delivery to the Holders in accordance with this Condition 4, shall be notified by the Issuer to the Holders as soon as practicable after determination thereof and shall be paid by the Holders to the Issuer immediately upon demand.

(F) In the event that the CBBCs have been exercised or have expired worthless, the Issuer will, with effect from the first Business Day following the MCE Valuation Period or the Expiry Date, as the case may be, remove the name of each Holder from the register of Holders in respect of such CBBCs and thereby cancel the relevant CBBCs and, if applicable, cancel the Global Certificate.

(G) Upon exercise following a Mandatory Call Event or on the Expiry Date in accordance with these Conditions, the Issuer will pay the Cash Settlement Amount minus the determined Exercise Expenses to the relevant Holder. If the Cash Settlement Amount is equal to or less than the determined Exercise Expenses, no amount is payable.

The aggregate Cash Settlement Amount minus the determined aggregate Exercise Expenses shall be despatched no later than the Settlement Date, by crediting that amount, in accordance with the CCASS Rules, to the relevant bank account designated by each Holder (the "**Designated Bank Account**").

If as a result of an event beyond the control of the Issuer ("**Settlement Disruption Event**"), it is not possible for the Issuer to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Holder on the original Settlement Date, the Issuer shall use its reasonable endeavours to procure payment electronically through CCASS by crediting the relevant Designated Bank Account of the Holder as soon as reasonably practicable after the original Settlement Date. The Issuer will not be liable to the Holder for any interest in respect of the amount due or any loss or damage that such Holder may suffer as a result of the existence of a Settlement Disruption Event.

(H) None of the Issuer, the Sponsor or their respective agents shall have any responsibility for any errors or omissions in the calculation and dissemination of any variables published by a third party and used in any calculation made pursuant to these Conditions or in the calculation of the Cash Settlement Amount arising from such errors or omissions.

The purchase of CBBCs does not confer on any Holder of such CBBCs any rights (whether in respect of voting, distributions or otherwise) in relation to the Units.

(I) Exercise and settlement of the CBBCs is subject to all applicable laws, rules, regulations and guidelines in force at the relevant time and neither the Issuer nor the Sponsor shall incur any liability whatsoever if it is unable to effect the transactions contemplated, after using all reasonable efforts, as a result of any such laws, rules, regulations or guidelines. Neither the Issuer nor the Sponsor shall under any circumstances be liable for any acts or defaults of the CCASS in relation to the performance of its duties in relation to the CBBCs.

(J) Subject to Condition 4(C)(ii), trading in CBBCs on the Stock Exchange shall cease (i) immediately upon the occurrence of a Mandatory Call Event or (ii) at the close of trading for the Trading Day immediately preceding the Expiry Date (for the avoidance of doubt, in the case when the Stock Exchange is scheduled to open for the morning session only, at the close of trading for the morning session), whichever is the earlier. All Post MCE Trades will be invalid and will be cancelled, and will not be recognised by the Issuer or the Stock Exchange.

5. Sponsor

(A) The Sponsor will not assume any obligation or duty to or any relationship or agency or trust for the Holders.

(B) The Issuer reserves the right, subject to the appointment of a successor, at any time to vary or terminate the appointment of the initial Sponsor and to appoint another sponsor provided that it will at all times maintain a sponsor in Hong Kong for so long as the CBBCs are listed on the Stock Exchange. Notice of any such termination or appointment will be given to the Holders in accordance with Condition 10.

6. Adjustments

(A) *Rights Issues*. If and whenever the Trust shall, by way of Rights (as defined below), offer new Units for subscription at a fixed subscription price to the holders of existing Units pro rata to existing holdings (a "**Rights Offer**"), the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Units becomes ex-entitlement ("**Rights Issue Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

$$\text{Adjustment Component} = \frac{1 + M}{1 + (R/S) \times M}$$

E: Existing Entitlement immediately prior to the Rights Offer

S: Cum-Rights Unit price being the closing price of an existing Unit as derived from the Daily Quotation Sheet of the Stock Exchange on the last Business Day on which the Units are traded on a Cum-Rights basis

R: Subscription price per new Unit specified in the Rights Offer plus an amount equal to any distributions or other benefits foregone to exercise the Right

M: Number of new Unit(s) (whether a whole or a fraction) per existing Unit each holder thereof is entitled to subscribe

Provided that if the above formula would result in an adjustment to the Entitlement which would amount to one per cent. or less of the Entitlement immediately prior to the adjustment, then no adjustment will be made. In addition, the Issuer shall adjust the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Strike Price and/or the Call Price shall take effect on the Rights Issue Adjustment Date.

For the purposes of these Conditions:

"**Rights**" means the right(s) attached to each existing Unit or needed to acquire one new Unit (as the case may be) which are given to the holders of existing Units to subscribe at a fixed subscription price for new Units pursuant to the Rights Offer (whether by the exercise of one Right, a part of a Right or an aggregate number of Rights).

(B) *Bonus Issues*. If and whenever the Trust shall make an issue of Units credited as fully paid to the holders of Units generally (other than pursuant to a scrip distribution or similar scheme for the time being operated by the Trust or otherwise in lieu of a cash distribution and without any payment or other consideration being made or given by such holders) (a "**Bonus Issue**") the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Units becomes ex-entitlement ("**Bonus Issue Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

Adjustment Component = (1 + N)

E: Existing Entitlement immediately prior to the Bonus Issue

N: Number of additional Units (whether a whole or a fraction) received by a holder of Units for each Unit held prior to the Bonus Issue

Provided that if the above formula would result in an adjustment to the Entitlement which would amount to one per cent. or less of the Entitlement immediately prior to the adjustment, then no adjustment will be made. In addition, the Issuer shall adjust the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Strike Price and/or the Call Price shall take effect on the Bonus Issue Adjustment Date.

(C) *Subdivisions and Consolidations*. If and whenever the Trust shall subdivide its Units or any class of its outstanding Units into a greater number of units (a "**Subdivision**") or consolidate the Units or any class of its outstanding Units into a smaller number of units (a "**Consolidation**"), then:

(i) in the case of a Subdivision, the Entitlement in effect immediately prior thereto will be increased whereas the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) will be decreased in the same ratio as the Subdivision; and

(ii) in the case of a Consolidation, the Entitlement in effect immediately prior thereto will be decreased whereas the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) will be increased in the same ratio as the Consolidation,

in each case on the day on which the Subdivision or Consolidation (as the case may be) shall have taken effect.

(D) *Restructuring Events*. If it is announced that the Trust is to or may merge with or into any other trust or consolidate with or into any other trust or corporation (including becoming, by agreement or otherwise, controlled by any person or corporation) (except where the Trust is the surviving entity in a merger) or that it is to, or may, sell or transfer all or substantially all of its assets, the rights attaching to the CBBCs may in the absolute discretion of the Issuer be amended no later than the Business Day preceding the consummation of such merger, consolidation, sale or transfer (each a "**Restructuring Event**") (as determined by the Issuer in its absolute discretion) so that the CBBCs shall, after such Restructuring Event, relate to the number of units of the trust(s) resulting from or surviving such Restructuring Event or other securities ("**Substituted Securities**") and/or cash offered in substitution for the affected Units, as the case may be, to which the holder of such number of Units to which the CBBCs related immediately before such Restructuring Event would have been entitled upon such Restructuring Event, and thereafter the provisions hereof shall apply to such Substituted Securities, provided that any Substituted Securities may, in the absolute discretion of the Issuer, be deemed to be replaced by an amount in the relevant currency equal to the market value or, if no market value is available, fair value, of such Substituted Securities in each case as determined by the Issuer as soon as practicable after such Restructuring Event is effected. For the avoidance of doubt, any remaining Units shall not be affected by this paragraph and, where cash is offered in substitution for Units or is deemed to replace Substituted Securities as described above, references in these Conditions to the Units shall include any such cash.

(E) *Cash Distribution*. No adjustment will be made for an ordinary cash distribution (whether or not it is offered with a scrip alternative) ("**Ordinary Distribution**"). For any other forms of cash distribution ("**Cash Distribution**") announced by the Trust, such as a cash bonus, special distribution or extraordinary distribution, no adjustment will be made unless the value of the Cash Distribution accounts for 2 per cent. or more of the Unit's closing price on the day of announcement by the Trust.

If and whenever the Trust shall make a Cash Distribution credited as fully paid to the holders of Units generally, the Entitlement shall be adjusted to take effect on the Business Day on which trading in the Units becomes ex-entitlement in respect of the Cash Distribution ("**Distribution Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Component x E

Where:

$$\text{Adjustment Component} = \frac{S - OD}{S - OD - CD}$$

E: The existing Entitlement immediately prior to the Cash Distribution

S: Cum-Cash Distribution Unit price being the closing price of an existing Unit as derived from the Daily Quotation Sheet of the Stock Exchange on the last Business Day on which the Units are traded on a cum-Cash Distribution basis

CD: The Cash Distribution per Unit

OD: The Ordinary Distribution per Unit, provided that the Ordinary Distribution and the Cash Distribution have the same ex-entitlement date. For avoidance of doubt, the OD shall be zero if the Ordinary Distribution and the Cash Distribution have different ex-entitlement dates

In addition, the Issuer shall adjust the Strike Price and/or the Call Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Component, where the "**reciprocal of the Adjustment Component**" means one divided by the relevant Adjustment Component. The adjustment to the Strike Price and/or the Call Price shall take effect on the Distribution Adjustment Date.

(F) *Other Adjustments.* Without prejudice to and notwithstanding any prior adjustment(s) made pursuant to the applicable Conditions, the Issuer may (but shall not be obliged to) make such other adjustments to the terms and conditions of the CBBCs as appropriate where any event (including the events as contemplated in the applicable Conditions) occurs and irrespective of, in substitution for, or in addition to the provisions contemplated in the applicable Conditions, provided that such adjustment is:

(i) not materially prejudicial to the interests of the Holders generally (without considering the circumstances of any individual Holder or the tax or other consequences of such adjustment in any particular jurisdiction); or

(ii) determined by the Issuer in good faith to be appropriate and commercially reasonable.

(G) *Notice of Adjustments.* All determinations made by the Issuer pursuant hereto will be conclusive and binding on the Holders. The Issuer will give, or procure that there is given, notice as soon as practicable of any adjustment and of the date from which such adjustment is effective by publication in accordance with Condition 10.

7. Purchase

The Issuer or any of its subsidiaries may at any time purchase CBBCs at any price in the open market or by tender or by private treaty. Any CBBCs so purchased may be held or resold or surrendered for cancellation.

8. Global Certificate

A Global Certificate representing the CBBCs will be deposited with CCASS in the name of HKSCC Nominees Limited. The Global Certificate must be executed manually on behalf of the Issuer by authorised person(s) or attorney(s) of the Issuer.

9. Meetings of Holders and Modification

(A) *Meetings of Holders.* The Instrument contains provisions for convening meetings of the Holders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution (as defined in the Instrument) of a modification of the provisions of the CBBCs or of the Instrument.

Any resolution to be passed in a meeting of the Holders shall be decided by poll. A meeting may be convened by the Issuer or by Holders holding not less than 10 per cent. of the CBBCs for the time being remaining unexercised. The quorum at any such meeting for passing an Extraordinary Resolution will be two or more persons holding or representing not less than 25 per cent. of the CBBCs for the time being remaining unexercised, or at any adjourned meeting two or more persons being or representing Holders whatever the number of CBBCs so held or represented.

A resolution will be an Extraordinary Resolution when it has been passed at a duly convened meeting by not less than three-quarters of the votes cast by such Holders who, being entitled to do so, vote in person or by proxy.

An Extraordinary Resolution passed at any meeting of the Holders shall be binding on all the Holders, whether or not they are present at the meeting.

Resolutions can be passed in writing without a meeting of the Holders being held if passed unanimously.

(B) *Modification.* The Issuer may, without the consent of the Holders, effect any modification of the terms and conditions of the CBBCs or the Instrument which, in the opinion of the Issuer, is (i) not materially prejudicial to the interests of the Holders generally (without considering the circumstances of any individual Holder or the tax or other consequences of such modification in any particular jurisdiction); (ii) of a formal, minor or technical nature; (iii) made to correct a manifest error; or (iv) necessary in order to comply with mandatory provisions of the laws or regulations of Hong Kong. Any such modification shall be binding on the Holders and shall be notified to them by the Issuer as soon as practicable thereafter in accordance with Condition 10.

10. Notices

All notices to the Holders will be validly given if published in English and in Chinese on the HKEX website. In such circumstances, the Issuer shall not be required to despatch copies of the notice to the Holders.

11. Termination or Liquidation

In the event of a Termination or the liquidation or dissolution of the trustee of the Trust (including any successor trustee appointed from time to time) ("**Trustee**") (in its capacity as trustee of the Trust) or the appointment of a liquidator, receiver or administrator or analogous person under any applicable law in respect of the whole or substantially the whole of the Trustee's undertaking, property or assets, all unexercised CBBCs will lapse and shall cease to be valid for any purpose. In the case of a Termination, the unexercised CBBCs will lapse and shall cease to be valid on the effective date of the Termination, in the case of a voluntary liquidation, the unexercised CBBCs will lapse and shall cease to be valid on the effective date of the relevant resolution and, in the case of an involuntary liquidation or dissolution, on the date of the relevant court order or, in the case of the appointment of a liquidator or receiver or administrator or analogous person under any applicable law in respect of the whole or substantially the whole of the Trustee's undertaking, property or assets, on the date when such appointment is effective but subject (in any such case) to any contrary mandatory requirement of law.

For the purpose of this Condition 11, "**Termination**" means (i) the Trust is terminated, or the Trustee or the manager of the Trust (including any successor manager appointed from time to time) ("**Manager**") is required to terminate the Trust under the trust deed ("**Trust Deed**") constituting the Trust or applicable law, or the termination of the Trust commences; (ii) the Trust is held or is conceded by the Trustee or the Manager not to be have been constituted or to have been imperfectly constituted; (iii) the Trustee ceases to be authorised under the Trust to hold the property of the Trust in its name and perform its obligations under the Trust Deed; or (iv) the Trust ceases to be authorised as an authorised collective investment scheme under the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong).

12. Further Issues

The Issuer shall be at liberty from time to time, without the consent of the Holders, to create and issue further CBBCs so as to form a single series with the CBBCs.

13. Delisting

(A) If at any time the Units cease to be listed on the Stock Exchange, the Issuer shall give effect to these Conditions in such manner and make such adjustments and amendments to the rights attaching to the CBBCs as it shall, in its absolute discretion, consider appropriate to ensure, so far as it is reasonably able to do so, that the interests of the Holders generally are not materially prejudiced as a consequence of such delisting (without considering the circumstances of any individual Holder or the tax or other consequences that may result in any particular jurisdiction).

(B) Without prejudice to the generality of Condition 13(A), where the Units are, or, upon the delisting, become, listed on any other stock exchange, these Conditions may, in the absolute discretion of the Issuer, be amended to the extent necessary to allow for the substitution of that other stock exchange in place of the Stock Exchange and the Issuer may, without the consent of the Holders, make such adjustments to the entitlements of the Holders on exercise (including, if appropriate, by converting foreign currency amounts at prevailing market rates into the relevant currency) as may be appropriate in the circumstances.

(C) The Issuer shall determine, in its absolute discretion, any adjustment or amendment and its determination shall be conclusive and binding on the Holders save in the case of manifest error. Notice of any adjustments or amendments shall be given to the Holders in accordance with Condition 10 as soon as practicable after they are determined.

14. Good Faith and Commercially Reasonable Manner

Any exercise of discretion by the Issuer under these Conditions will be made in good faith and in a commercially reasonable manner.

15. Governing Law

The CBBCs and the Instrument are governed by and construed in accordance with the laws of the Hong Kong Special Administrative Region of the People's Republic of China ("**Hong Kong**"). The Issuer and each Holder (by its purchase of the CBBCs) submit for all purposes in connection with the CBBCs and the Instrument to the non-exclusive jurisdiction of the courts of Hong Kong.

16. Contracts (Rights of Third Parties) Ordinance

A person who is not a party to these Conditions has no right under the Contracts (Rights of Third Parties) Ordinance (Cap. 623 of the Laws of Hong Kong) to enforce or to enjoy the benefit of any term of the CBBCs.

17. Language

A Chinese translation of these Conditions will be made available for collection during normal office hours from the Sponsor at 52nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. In the event of any inconsistency between the Chinese translation and the English version of these Conditions, the English version of these Conditions shall prevail.

18. Prescription

Claims against the Issuer for payment of any amount in respect of the CBBCs will become void unless made within ten years after the MCE Valuation Period or the Expiry Date (as the case may be) and thereafter, any sums payable in respect of such CBBCs shall be forfeited and shall revert to the Issuer.

Sponsor:
UBS Securities Asia Limited
52nd Floor
Two International Finance Centre
8 Finance Street, Central
Hong Kong

APPENDIX 3 — AUDITOR'S REPORT AND OUR CONSOLIDATED FINANCIAL STATEMENTS AS AT AND FOR THE YEAR ENDED 31 DECEMBER 2015

This information in this Appendix 3 has been extracted from our Annual Report 2015 as at and for the year ended 31 December 2015. The page numbers of such document appear on the bottom left or right hand side of the pages in this Appendix 3.

Ernst & Young Ltd
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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 to738.

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 Licensed Audit Expert (Auditor in Charge)	Troy J. Butner 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

CHF million	Note	31.12.15	31.12.14	% change from 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.

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.

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*.

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.

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.

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*.

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.

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

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 – Services	Corporate Center – Group ALM	Corporate Center – Non-core and Legacy Portfolio	UBS
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]

	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 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.

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.

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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.

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.

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.

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.

Consolidated financial statements

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]	Restructuring	Loan commitments 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.

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.

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.

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.

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.

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.

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)

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.

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.

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.

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.

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).

	Total gains / losses included in comprehensive income										
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	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

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			Significant	31.12.15		31.12.14		
CHF billion	**31.12.15**	31.12.14	**31.12.15**	31.12.14	**Valuation technique(s)**	**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%.

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.

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.

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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.

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.

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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.

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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 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 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 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 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 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 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 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 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 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 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.

Consolidated financial statements

Note 39 Supplemental guarantor information required under SEC regulations (continued)

Supplemental guarantor consolidated statement of cash flows

CHF million 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.

APPENDIX 4 — RISK MANAGEMENT AND CONTROL

The information in this Appendix 4 describes the risk management and control process of UBS AG and references herein to "**UBS**" or the "**Group**" are to UBS AG and its subsidiaries.

The information in this Appendix 4 has been extracted from our Annual Report 2015 as at and for the year ended 31 December 2015. References to page numbers in this Appendix 4 are to pages of such document. The page numbers of such document appear on the bottom left or right hand side of the pages in this Appendix 4.

Risk management and control

Overview of risks arising from our business activities

EDTF | Our business is constrained by the capital we have available to cover risk-weighted assets (RWA) resulting from the risks in our business, by the size of our on- and off-balance sheet assets through their contribution to our leverage ratio and regulatory liquidity ratios, and by our risk appetite. Together, these constraints create a close link between our strategy, the risks that our businesses take and the balance sheet and capital resources that we have available.

As described in the "Capital management" section of this report, our equity attribution framework reflects our objectives of maintaining a strong capital base and managing our businesses in a way that they appropriately balance profit potential, risk, balance sheet and capital usage. The framework establishes this link through the inclusion of RWA, the Swiss SRB leverage ratio denominator (LRD) and risk-based capital (RBC), an internal measure of risk similar to economic capital, as three key drivers for the allocation of tangible equity to our business divisions and Corporate Center. In addition to tangible equity, we allocate equity to support goodwill and intangible assets as well as certain capital deduction items to arrive at total equity attributed to the business divisions and Corporate Center.

For each of our business divisions and Corporate Center units, the table on the next page presents the correlation between their risk exposures, the measures described above and their performance. In addition to the key risks inherent in each business division and Corporate Center unit, the table presents an overview of the key drivers of tangible attributed equity (RWA, LRD and RBC), as well as tangible attributed equity, total assets and adjusted operating profit before tax. We present tangible attributed equity, because we consider it to be more closely correlated with the risk measures applied. This helps explain how the activities in our business divisions and Corporate Center are reflected in our risk measures, and it explains the performance of the business divisions and Corporate Center in the context of these requirements. ▲

➔ **Refer to the "Capital management" section of this report for more information on RWA, LRD and our equity attribution framework**

➔ **Refer to "Statistical measures" in this section for more information on RBC**

➔ **Refer to the "Adjusted results" table in the "Group performance" section of this report for more information**

EDTF | Key risks, risk measures and performance by business division and Corporate Center unit

Business divisions and Corporate Center	Wealth Management	Wealth Management Americas	Personal & Corporate Banking	Asset Management	Investment Bank	CC – Services	CC – Group ALM	CC – Non-core and Legacy Portfolio
Key risks arising from business activities	**Credit risk** from lending against securities collateral and mortgages, and a small amount of derivatives trading activity. Minimal contribution to market risk	**Credit risk** from lending against securities collateral and mortgages **Market risk** from municipal securities and closed-end fund secondary trading	**Credit risk** from retail business, mortgages, secured and unsecured corporate lending, and a small amount of derivatives trading activity. Minimal contribution to market risk	Small amounts of credit and market risk	**Credit risk** from lending, derivatives trading and securities financing **Market risk** from trading in equities, fixed income, foreign exchange (FX) and commodities	No material risk exposures	**Credit** and **market risks** arising from management of the Group's balance sheet, capital, and profit and loss Central management of **liquidity, funding** and **structural FX risk**	**Credit risk** from remaining lending and derivatives exposures **Market risk,** mainly from Non-core exposures, is materially hedged and primarily relates to liquid market factors

Operational risk is an inevitable consequence of being in business, as losses can result from inadequate or failed internal processes, people and systems, or from external events. It can arise as a result of our past and current business activities across all business divisions and Corporate Center.

▲

EDTF |
Risk measures and performance

	31.12.15								
CHF billion, as of or for the year ended	Wealth Management	Wealth Management Americas	Personal & Corporate Banking	Asset Management	Investment Bank	CC – Services	CC – Group ALM	CC – Non-core and Legacy Portfolio	Group
Risk-weighted assets (fully applied)[1]	25.3	21.9	34.6	2.6	62.9	23.6	6.0	30.7	207.5
of which: credit risk	*12.6*	*8.5*	*32.9*	*1.7*	*35.5*	*1.3*	*5.0*	*6.9*	*104.4*
of which: market risk	*0.0*	*1.0*	*0.0*	*0.0*	*10.5*	*(2.9)*[2]	*0.9*	*2.6*	*12.1*
of which: operational risk	*12.6*	*12.4*	*1.6*	*0.9*	*16.8*	*9.5*	*0.1*	*21.1*	*75.1*
Leverage ratio denominator (fully applied)[3]	119.0	62.9	153.8	2.7	268.0	4.8	240.2	46.2	897.6
Risk-based capital[4]	1.0	1.3	2.9	0.3	6.1	12.6	3.6	2.7	30.3
Average tangible attributed equity[5]	2.8	1.9	3.9	0.4	7.2	15.9	3.2	2.9	38.2
Total assets	119.9	61.0	141.2	12.9	253.5	22.6	237.5	94.4	942.8
Operating profit / (loss) before tax (adjusted)[6]	2.8	0.8	1.7	0.6	2.3	(1.1)	(0.1)	(1.4)	5.6

	31.12.14								
CHF billion, as of or for the year ended	Wealth Management	Wealth Management Americas	Personal & Corporate Banking	Asset Management	Investment Bank	CC – Services	CC – Group ALM	CC – Non-core and Legacy Portfolio	Group
Risk-weighted assets (fully applied)[1]	25.4	21.7	33.1	3.8	66.7	23.0	7.1	35.7	216.5
of which: credit risk	*12.3*	*8.7*	*31.4*	*3.0*	*35.0*	*1.1*	*4.3*	*12.8*	*108.6*
of which: market risk	*0.0*	*1.0*	*0.0*	*0.0*	*13.6*	*(4.5)*[2]	*2.7*	*3.6*	*16.5*
of which: operational risk	*12.9*	*11.9*	*1.6*	*0.8*	*18.1*	*12.1*	*0.1*	*19.3*	*76.7*
Leverage ratio denominator (fully applied)[3]	138.3	63.3	165.9	14.9	288.3	(2.6)	236.3	93.4	997.8
Risk-based capital[4]	1.3	1.1	3.0	0.3	6.8	9.1	4.3	3.6	29.5
Average tangible attributed equity[5]	2.7	2.1	4.1	0.5	7.4	8.8	3.2	4.9	33.7
Total assets	127.6	56.0	143.7	15.2	292.3	19.9	237.9	169.8	1,062.5
Operating profit / (loss) before tax (adjusted)[6]	2.5	0.9	1.6	0.5	0.2	(0.7)	(0.3)	(1.9)	2.8

1 Based on the Basel III framework as applicable for Swiss systemically relevant banks (SRBs). Refer to the "Capital management" section of this report for more information. 2 Negative market risk numbers are due to the diversification effect allocated to CC – Services. 3 Calculated in accordance with Swiss SRB rules. From 31 December 2015 onward, the leverage ratio denominator calculation is fully aligned with the BIS Basel III rules. Prior-period figures are calculated in accordance with former Swiss SRB rules and are therefore not fully comparable. Refer to the "Capital management" section of this report for more information. 4 Refer to "Statistical measures" in the "Risk management and control" section of this report for more information on risk-based capital. 5 Refer to the "Capital management" section of this report for more information on our equity attribution framework. 6 Adjusted results are non-GAAP financial measures as defined by SEC regulations. Refer to the "Adjusted results" table in the "Group performance" section of this report for more information.

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Risk categories

We categorize the risks faced by our business divisions and Corporate Center as outlined in the table below.

EDTF | Pillar 3 | **Risk definitions**

	Risk managed by	Independent oversight by	Captured in our risk appetite framework
Primary risks: the risks that our businesses may take in pursuit of their business objectives			
Audited | ***Credit risk:*** the risk of loss resulting from the failure of a client or counterparty to meet its contractual obligations. This includes settlement risk and loan underwriting risk: *Settlement risk:* the risk of loss resulting from transactions that involve exchange of value where we must fulfill our obligation to deliver without first being able to determine with certainty that we will receive the countervalue *Loan underwriting risk:* the risk of loss arising during the holding period of financing transactions which are intended for further distribution ▲	Business management	Risk Control	●
Audited | ***Market risk (traded and non-traded):*** the risk of loss resulting from changes in general market risk factors (e.g., interest rates, equity index levels, exchange rates, commodity prices and general credit spreads) and changes in prices of debt and equity instruments which result from factors and events specific to individual companies or entities. Market risk includes issuer risk and investment risk: *Issuer risk:* the risk of loss from changes in fair value resulting from credit-related events affecting an issuer or group of related issuers, including sovereigns, to which we are exposed through tradable securities or derivatives referencing the issuer *Investment risk:* issuer risk associated with positions held as financial investments ▲	Business management	Risk Control	●
Country risk: the risk of losses resulting from country-specific events. It includes transfer risk, whereby a country's authorities prevent or restrict the payment of an obligation, as well as systemic risk events arising from country-specific political or macroeconomic developments	Business management	Risk Control	●
Consequential risks: the risks to which our businesses are exposed as a consequence of being in business			
Audited | ***Liquidity risk:*** the risk of being unable to generate sufficient funds from assets to meet payment obligations when they fall due, including in times of stress ▲ Audited | ***Funding risk:*** the risk of higher-than-expected funding costs due to higher-than-expected UBS credit spreads when existing funding positions mature and need to be rolled over or replaced by other, more expensive funding sources. If a shortage of available funding sources is expected in a stress event, funding risk also covers potential additional losses from forced asset sales ▲	Group Treasury	Risk Control	●
Structural foreign exchange risk: the risk of decreases in our capital due to changes in foreign exchange rates with an adverse translation effect on capital held in currencies other than Swiss francs	Group Treasury	Risk Control	●
Operational risk: the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events, including cyber risk. Operational risk includes, among others, legal risk, conduct risk and compliance risk: *Legal risk:* (i) the financial risk resulting from the non-enforceability of a contract or the failure to assert non-contractual rights, or (ii) the financial or reputational risk resulting from UBS being held liable for a contractual or legal claim, or otherwise being subject to a penalty or liability in a legal action, based on a contractual or other legal claim, violation of law, or regulation, or infringement of intellectual property rights, or failing to manage litigation or other actions appropriately or effectively *Conduct risk:* Conduct risk is the risk that the conduct of the firm or its individuals unfairly impacts clients or counterparties, undermines the integrity of the financial system or impairs effective competition to the detriment of consumers. *Compliance risk:* the financial or reputational risk incurred by UBS by not adhering to the applicable laws, rules and regulations, local and international best practice (including ethical standards) and UBS's own internal standards	Business management	Risk Control Legal (legal risk) Risk Control (conduct risk) Risk Control (compliance risk)	●
Pension risk: the risk of a negative impact on other comprehensive income as a result of deteriorating funded status from decreases in the fair value of assets held in the defined benefit pension funds and / or changes in the value of defined benefit pension obligations due to changes in actuarial assumptions (e.g., discount rate, life expectancy, rate of pension increase) and / or changes to plan designs	Human Resources	Risk Control and Finance	●
Environmental and social risk: the possibility of UBS suffering reputational or financial harm from transactions, products, services or activities that involve a party associated with environmentally or socially sensitive activities **➔ Refer to the "UBS and Society" section of this report for more information**	Business management	Risk Control	
Business risks: the risks arising from the commercial, strategic and economic environment in which our businesses operate			
Business risks: the potential negative impact on earnings from lower-than-expected business volumes and / or margins, to the extent they are not offset by a decrease in expenses	Business management	Finance	●
Reputational risks			
Reputational risk: the risk of a decline in the reputation of UBS from the point of view of its stakeholders – customers, shareholders, staff and the general public	All businesses and functions	All control functions	

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Risk, treasury and capital management

Top and emerging risks

EDTF | Our approach to identifying and monitoring top and emerging risks is an ongoing part of our risk management framework. The top and emerging risks disclosed below reflect those that we currently think have the potential to significantly affect the Group and which could materialize within one year. Investors should also carefully consider all information set out in the "Risk factors" section of this report, where we discuss the top and emerging risks in more detail, as well as other risks we currently consider material, that may impact our ability to execute our strategy and may affect our business activities, financial condition, results of operations and prospects.

Regulatory and legislative changes: We continue to be exposed to a number of regulatory and legislative changes, some of which have already been adopted and implemented, but also some that are subject to legislative action or to further rulemaking by regulatory authorities before final implementation. This results in uncertainty as to whether and in which form these regulatory and legislative changes will be adopted, the timing and content of implementing regulations and interpretations and/or the dates of their effectiveness. In addition, both adopted and proposed changes differ significantly across the major jurisdictions, making it difficult to manage a global institution and potentially putting us at a disadvantage to those peers operating either in only one jurisdiction or in jurisdictions where the regulatory environment is considered to be less stringent. Moreover, managing the risk profile of a subsidiarized organization results in increased effort and complexity. While we aim to leverage Group-wide global frameworks and processes, local regulatory requirements can result in potential inefficiencies such as, for example, the application of different models for the same risk, the retention of buffer capital in subsidiaries that impede on the free flow of capital across the Group, and the requirement for staff to be resident in the local jurisdiction.

We have programs in place to address the risks arising from regulatory and legislative changes, including ongoing monitoring of proposals, providing guidance and feedback to the relevant authorities and developing internal assessment and implementation plans. During 2015, our more active programs included those relating to resolution planning and resolvability, changes to our legal entity structure and operating model, and new and revised capital, liquidity and funding-related regulations, as well as requirements related to risk data aggregation and reporting. We have made good progress across all of these programs in preparing for their implementation, including the establishment of UBS Group AG as the holding company of the UBS Group and the successful establishment of UBS Switzerland AG. ▲

➔ **Refer to "Regulatory and legislative changes may adversely affect our business and ability to execute our strategic plans" in the "Risk factors" section of this report for more information**

Legal and regulatory enforcement risks: EDTF | We are subject to a large number of claims, disputes, legal proceedings and government investigations and we anticipate that our ongoing business activities will continue to give rise to such matters in the future. We continue to work on enhancing our operational risk framework and our relationships with regulatory authorities and on resolving open matters in a manner most beneficial to our stakeholders. Information on those litigation, regulatory and similar matters currently considered significant by management is disclosed in Note 22 of the "Consolidated financial statements" section of this report. The extent of our financial exposure to these and other matters could be material and could substantially exceed the level of provisions that we have established, which was CHF 3.0 billion as of 31 December 2015. At this point in time, we believe that the industry continues to operate in an environment where the net charge associated with litigation, regulatory and similar matters will remain elevated for the foreseeable future, and we will continue to be exposed to a number of significant claims and regulatory matters. ▲

➔ **Refer to "Material legal and regulatory risks arise in the conduct of our business" in the "Risk factors" section of this report for more information**

Market conditions and the macroeconomic climate: EDTF | We are exposed to a number of macroeconomic issues as well as general market conditions. These external pressures may have a significant adverse effect on our business activities and related financial results, primarily through reduced margins, asset impairments and other valuation adjustments. Accordingly, these macroeconomic factors are considered in our development of stress testing scenarios for our ongoing risk management activities.

Management continues to consider developments in the eurozone to be of greatest significance to us, but we also perceive a growing risk from the macroeconomic developments in China and emerging markets more broadly, as well as the weakening of commodity prices, particularly oil. These factors have given rise to increased market volatility in 2015, which could well persist throughout 2016. In addition, as our strategic plans depend heavily upon our ability to generate growth and revenue in emerging markets, we are monitoring developments in these regions very closely. The potential effects of a China-led global economic slowdown have been captured in the calculation of our post-stress fully applied common equity tier 1 (CET1) capital ratio following the replacement of the *Eurozone Crisis* scenario with a new *Global Recession* scenario as the binding scenario in our combined stress testing framework.

Given the limited negative fallout from recent experiences in Europe and Japan, there is a growing perception that negative interest rates have become a conventional policy tool, and there is a strong possibility that rates will be cut further in the coming months. Prolonged negative rates could lead to unpredictable structural shifts in behavior and economic and financial distortions.

We continue to closely monitor developments in our domestic economy, which is heavily reliant on exports, and for which the continued strength of the Swiss franc could have a negative effect. ▲

➔ **Refer to "Interest rate risk in the banking book" in this section and to the "Risk factors" section of this report for more information on negative interest rates**

➔ **Refer to "Performance in the financial services industry is affected by market conditions and the macroeconomic climate" and "Fluctuation in foreign exchange rates and continuing low or negative interest rates may have a detrimental effect on our capital strength, our liquidity and funding position, and our profitability" in the "Risk factors" section of this report for more information**

➔ **Refer to "Risk measurement" in this section for more information on macroeconomic considerations, including stress testing**

➔ **Refer to "Country risk" in this section for more information on our exposures to selected eurozone and emerging markets countries**

Reputational risk: EDTF | Our reputation is critical to achieving our strategic goals and financial targets, and damage to it can have fundamental negative effects on our business and prospects. This has been emphasized for us in recent years, following events such as the matters related to LIBOR and investigations into our foreign exchange business. This has triggered an enhanced focus on improving and sustaining a strong risk culture and UBS behaviors across the Group, the implementation of a coherent and holistic conduct risk framework, and the continuing development of our surveillance and monitoring capabilities. ▲

➔ **Refer to "Our reputation is critical to the success of our business" in the "Risk factors" section of this report for more information**

➔ **Refer to "Risk culture" in this section for more information**

➔ **Refer to "Operational risk" in this section for more information**

Cyber risk: EDTF | One of the most critical and constantly evolving risks facing the broader industry is the threat of cyber- attacks. Along with the rest of the industry we face ongoing threats, such as data theft, disruption of service and cyber fraud, all of which have the potential for extremely significant impact. We continue to invest significantly in dedicated security programs to strengthen our cyber defense. We have recently appointed a Head of Cyber Risk to effectively address the challenges posed by the dynamic external environment and our own technology innovation. The role will focus on enterprise governance for cyber-related activities, and will include regular assessments of cyber threat intelligence, analysis of the effectiveness of our controls, and progress on improving our capability. To further enhance our resilience, our cyber response framework, comprising "Analyze," "Protect," "Detect" and "Respond/Recover" capabilities, will be further strengthened through a dedicated program and will include assessments of our vendor's capabilities. ▲

➔ **Refer to "Operational risk" in this section for more information**

Other operational risks: EDTF | Due to the operational complexity of all our businesses, we are continually exposed to operational risks such as process error, failed execution and fraud. We believe we have a strong operational risk management framework in place to help ensure that these risks are appropriately controlled. However, in line with the industry, some areas retain an elevated level of inherent risk, specifically financial crime, anti-money laundering/know your client, internal and external fraud, and anti-bribery and corruption. Our operational risks management framework has been significantly enhanced following the unauthorized trading incident in 2011. In view of the changing nature of operational risks and the environment within which we operate, we continuously review our associated control frameworks to allow us to make enhancements where necessary. Our strategy for 2016 will focus on continued development of our core capabilities in the prevention of financial crime and monitoring and surveillance. In addition, conduct risk will remain a high priority to ensure that we treat clients and the markets in which we operate appropriately. We will continue to strengthen our control frameworks for vendor management and transformational change. ▲

➔ **Refer to "Operational risks affect our business" in the "Risk factors" section of this report for more information**

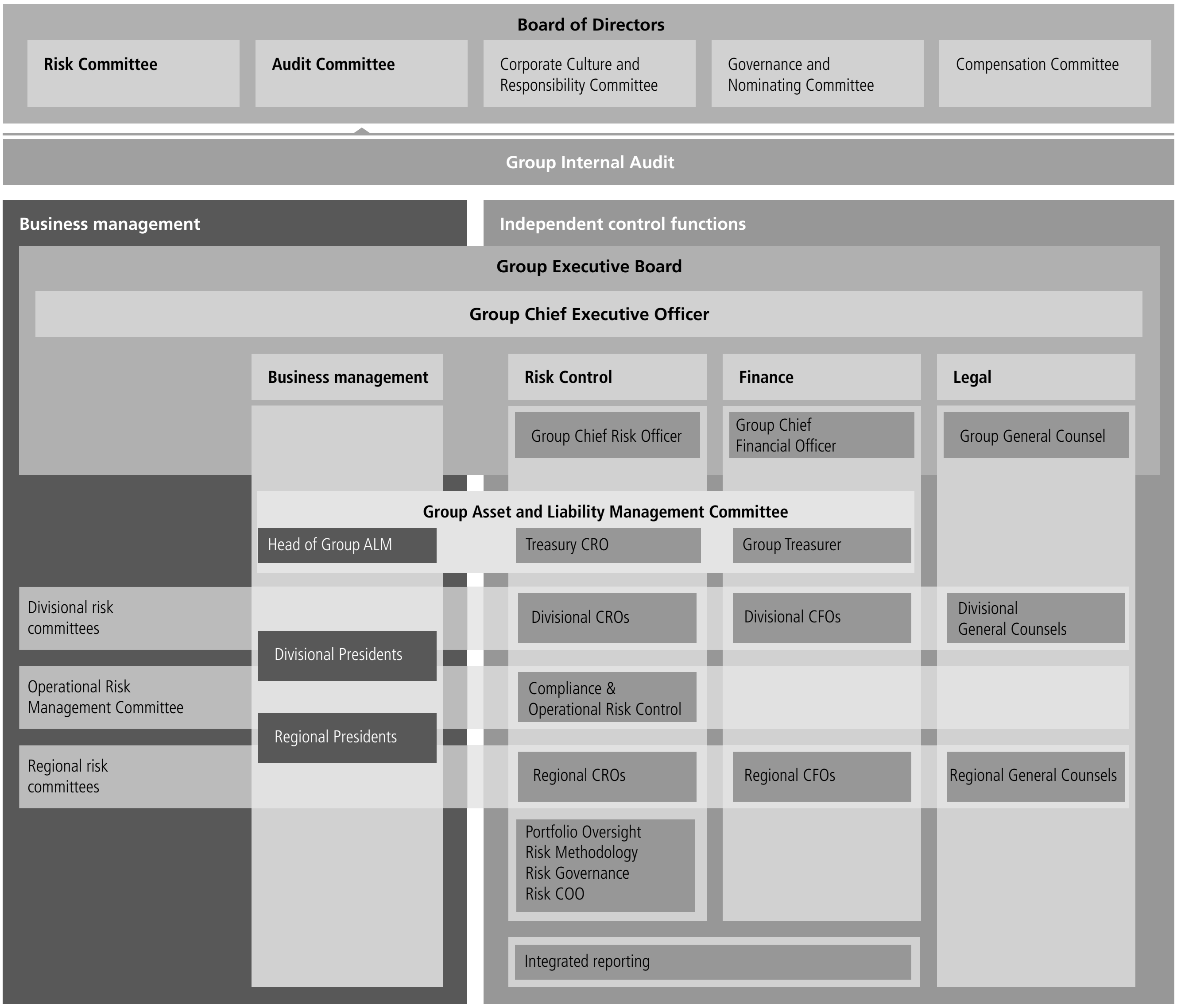
➔ **Refer to "Operational risk" in this section for more information on our management of operational risk**

Risk governance

EDTF | Pillar 3 | Our risk governance framework operates along three lines of defense. Business management, as the first line of defense, owns its respective risk exposures and is required to maintain effective processes and systems to manage their risks, including robust and comprehensive internal controls and documented procedures. Business management must also have appropriate supervisory controls and review processes in place to identify control weaknesses, inadequate processes and unexpected events. Control functions act as the second line of defense, providing independent oversight of primary and consequential risks. This includes setting risk limits and protecting against non-compliance with applicable laws and regulations. Group Internal Audit (GIA) forms the third line of defense, evaluating the overall effectiveness of governance, risk management and the control environment, including the assessment of how the first and second lines of defense meet their objectives. ▲▲

These key roles and responsibilities for risk management and control are illustrated in the following chart and described below.

Audited | EDTF | Pillar 3 | **Risk governance**



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Audited | EDTF | Pillar 3 | *The Board of Directors* (BoD) is responsible for determining the risk principles, risk appetite and major portfolio limits of the Group, including their allocation to the business divisions and Corporate Center. The risk assessment and management oversight performed by the BoD considers evolving best practices and is intended to conform to statutory requirements. The BoD is supported by the BoD Risk Committee, which monitors and oversees the risk profile of the Group and the implementation of the risk framework as approved by the BoD, as well as assessing the Group's key risk measurement methodologies. The Corporate Culture and Responsibility Committee supports the BoD in fulfilling its duty to safeguard and advance the Group's reputation for responsible and sustainable conduct. It reviews and assesses stakeholder concerns and expectations pertaining to the societal performance of UBS and the development of UBS's corporate culture and their possible consequences for UBS, and recommends appropriate actions to the BoD. The Chairman of the BoD and the Audit Committee oversee the performance of Group Internal Audit.

The *Group Executive Board* (GEB) implements the risk framework, controls the Group's risk profile and approves key risk policies.

The *Group Chief Executive Officer* (Group CEO) is responsible for the results of the Group, has risk authority over transactions, positions and exposures, and also allocates portfolio limits approved by the BoD within the business divisions and Corporate Center.

Business management comprises business division and regional Presidents. The *business division Presidents* are accountable for the results of their business divisions. This includes actively managing their risk exposures, and ensuring profit potential, risk, balance sheet and capital usage are balanced. The *regional Presidents* coordinate and implement UBS's strategy in their region, jointly with the business division Presidents and heads of the control and support functions. They have a veto power over decisions with respect to all business activities that may have a negative regulatory or reputational effect in their respective regions.

The *Group Chief Risk Officer* (Group CRO) reports directly to the Group CEO and has functional and management authority over Risk Control throughout the Group. Risk Control provides independent oversight of all primary and most consequential risks as outlined in the "Risk categories" section above. This includes establishing methodologies to measure and assess risk, setting risk limits, and developing and operating an appropriate risk control infrastructure. The risk control process is supported by a framework of policies and authorities. *Business division, regional and legal entity Chief Risk Officers* have delegated authority for their respective divisions, regions and entities. Moreover, authorities are delegated to risk officers according to their expertise, experience and responsibilities.

The *Group Chief Financial Officer* (Group CFO) is responsible for ensuring that disclosure of our financial performance meets regulatory requirements and corporate governance standards with clarity and transparency. The Group CFO is also responsible for the management of UBS's tax affairs, treasury and capital, including management of funding and liquidity risk and UBS's regulatory capital ratios. The Group CFO is also responsible for implementation of the associated control frameworks, with the exception of the control framework for treasury activities, for which responsibility is with Risk Control.

The *Group General Counsel* (Group GC) is responsible for implementing the Group's risk management and control principles for legal matters, and for managing the legal function for the UBS Group. The Group GC is responsible for reporting legal risks and material litigation, and for managing legal, internal, special and regulatory investigations.

Group Internal Audit (GIA) independently, objectively and systematically assesses the adherence to our strategy, the effectiveness of governance, risk management and control processes at Group, business division and regional levels, including compliance with legal, regulatory and statutory requirements, as well as with internal policies and contracts. GIA has a functional reporting line to the Audit Committee. ▲▲▲

Risk appetite framework

EDTF | Pillar 3 | Our risk appetite is defined at the aggregate level and reflects the types of risk that we are willing to accept or intend to avoid. It is established via a complementary set of qualitative and quantitative objectives defined on a Group-wide level and embedded throughout our business divisions and legal entities through Group, business division and legal entity policies, limits and authorities. These objectives are a critical foundation to maintaining a robust risk culture throughout our organization. The "Risk appetite framework" chart depicts the key elements of this framework, which are described in more detail below.

Qualitative statements, reflected in the Group's Risk Management and Control Principles, and various policies and initiatives, aim to ensure we maintain the desired risk culture.

Quantitative risk appetite objectives relate Group-wide risk exposure to our risk capacity and are designed to enhance the Group's resilience against the impact of potential severe adverse economic or geopolitical events. They cover areas such as the Group's capital buffer, solvency, earnings, leverage, liquidity and funding, and are subject to periodic review, including as part of the annual business planning process.

These objectives are complemented by operational risk appetite objectives, which are established for each of our operational risk categories, for example market conduct, theft, fraud, data confidentiality, and technology risks. Operational risk events that exceed risk tolerances set according to predetermined percentages of the firm's operating income must be escalated to the business division President or higher, as appropriate.

EDTF | Pillar 3 | Risk appetite framework

Risk Appetite Framework

Risk Appetite Statement

Risk Principles, Governance and Roles/Responsibilities	Risk Objectives, Measures and Controls
– Risk Management and Control Principles – Code of Business Conduct and Ethics – Total Reward Principles – Organization Regulations/Policies – Roles and Responsibilities	– Group-wide Risk Appetite Objectives – Operational Risk Appetite Objectives – Risk Measurement Frameworks – Authorities and Limits

Risk Reporting and Disclosure, including Internal, Regulatory and External Reporting

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The status of risk appetite objectives is evaluated each month, and reported to the BoD and the GEB. Our risk appetite may change over time and, as a consequence, portfolio limits and risk authorities will be subject to periodic reviews and changes, in particular in the context of the annual business planning process.

In addition, escalation triggers embedded in the firm's Recovery Plan are drawn from the set of risk limits that management monitors on a routine basis.

Our risk appetite framework is encompassed in a single overarching policy and conforms to the Financial Stability Board's "Principles for An Effective Risk Appetite Framework" published on 18 November 2013. ▲▲

Risk principles and risk culture

EDTF | A strong and dynamic risk culture is a prerequisite for success in today's highly complex operating environment. We are focused on fostering and further strengthening our culture as a source of sustainable competitive advantage both from a risk and a performance point of view. By placing prudent and disciplined risk-taking at the center of every decision, we want to achieve our goals of delivering unrivaled client satisfaction, creating long-term value for stakeholders, and making UBS one of the most attractive companies to work for in the world.

Our risk appetite framework combines all the important elements of our risk culture, expressed in our Pillars, Principles and Behaviors, our Risk Management and Control Principles, our Code of Business Conduct and Ethics, and our Total Reward Principles. Together, these aim to align the decisions we make with the firm's strategy, principles and risk appetite. They help define who we are and the way we operate each day, providing a solid foundation for promoting risk awareness, leading to appropriate risk taking and establishing robust risk management and control processes. ▲

EDTF | Risk management and control principles

Protection of financial strength	Protection of reputation	Business management accountability	Independent controls	Risk disclosure
Protecting the financial strength of UBS by controlling our risk exposures and avoiding potential risk concentrations at individual exposure levels, at specific portfolio levels and at an aggregate firm-wide level across all risk types	Protecting our reputation through a sound risk culture characterized by a holistic and integrated view of risk, performance and reward, and through full compliance with our standards and principles, particularly our Code of Business Conduct and Ethics	Ensuring management accountability, whereby business management, as opposed to Risk Control, owns all risks assumed throughout the firm and is responsible for the continuous and active management of all risk exposures to ensure that risk and return are balanced	Independent control functions which monitor the effectiveness of the business's risk management and oversee risk-taking activities	Disclosure of risks to senior management, the Board of Directors, investors, regulators, credit rating agencies and other stakeholders with an appropriate level of comprehensiveness and transparency

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Pillars, Principles and Behaviors

EDTF | Our risk culture is based on our three keys to success – Pillars (capital strength, efficiency and effectiveness, and risk management), Principles (client focus, excellence and sustainable performance) and Behaviors (integrity, collaboration and challenge). A strong emphasis is placed on every individual's accountability for adhering to our principles and behaviors at all times, with an unremitting focus on the long-term objectives and success of UBS, thereby safeguarding the firm's reputation, our most valuable asset. ▲

Risk Management and Control Principles

EDTF | These principles highlight the key aspects of our risk management and control philosophy and are consistent with our three-lines-of-defense model. ▲

Code of Business Conduct and Ethics

EDTF | The Code of Business Conduct and Ethics (Code) outlines the principles and practices that all our employees and BoD members are required to follow unreservedly, both in letter and in spirit, supported by an annual adherence certification process. Included in the Code are requirements covering laws, rules and regulations, ethical and responsible behavior, information management, the work environment, social responsibility and disciplinary measures. ▲

Total Reward Principles

EDTF | Our performance measurement and management process requires that all employees have risk objectives aligned to their roles and responsibilities. This helps reinforce their understanding that rigorous risk management plays an essential role in our efforts to deliver the best possible client experience and achieve our business objectives. In short, everyone at UBS is responsible for anticipating, addressing and managing risks. The performance measurement and management process links into the Group's compensation framework.

Our compensation philosophy is to provide our employees with compensation that recognizes their individual contributions, team, business division and Group performance, and clearly links their pay to performance, not simply the delivery of business targets, but also how those results were achieved through our employees' behaviors. As explained in more detail in the "Compensation" section of this report, the performance of GEB members is assessed through both quantitative and qualitative factors. Qualitative factors include reinforcing a culture of accountability and responsibility, demonstrating commitment to being a responsible corporate citizen and acting with integrity in all interactions with our stakeholders.

The "Compensation" section of this report explains how the compensation of each employee is decided and shows how the individual's contribution to promoting our principles and standards of behaviors is factored into the compensation process. The process includes an examination of the individual's efforts to actively manage risk, striking an appropriate balance between risk and reward, and to what extent the individual exhibited professional and ethical behavior. Forfeiture provisions enable the firm to forfeit some, or all, of any unvested deferred portion of compensation should an employee commit certain harmful acts and in other select circumstances.

➔ **Refer to the "Our employees" and "Compensation" sections of this report for more information**

In embedding the desired risk culture within the Group, these principles are supported by a range of initiatives covering employees at all levels, which include the elements described below. ▲

House View on Leadership

EDTF | Leadership is a critical component in developing a culture that is a source of pride and competitive advantage. Introduced in September 2014, the UBS House View on Leadership is a set of explicit expectations for leaders that establishes consistent leadership standards across UBS. It was developed by a cross-business group of employees and external experts, led by the Group Executive Board. In 2015, the House View of Leadership was integrated into all promotion, hiring and development processes for positions at Director level and higher. The aim is to improve hiring decisions, and to support the development and promotion of present and future UBS leaders. It is also used as a basis for leadership development programs and initiatives. ▲

Principles of good supervision

EDTF | The Group has defined principles of good supervision, which establish clear expectations of managers and employees with respect to supervisory responsibilities, specifically: to take responsibility, to organize their business, to know their employees and what they do, to know their business, to create a good compliance culture and to respond to and resolve issues. Supervisors are expected to understand and set a good example of professional behavior and to act as role models, to be open about issues, to be alert to unusual behavior and to act on any red flags, ensuring that issues are resolved. We have established frameworks intended to ensure adherence to these principles. ▲

Whistleblowing

EDTF | We continue to promote a culture of constructive challenge, encouraging employees to speak up. Our whistleblowing policy provides a formal framework and multiple channels for all employees to raise concerns, either openly or anonymously, about suspected breaches of laws, regulations, rules and other legal requirements to which the Group is subject, or our Code of Business Conduct and Ethics, policies, or any relevant professional standards. Raising employee awareness through training and communication is an integral part of our approach. We have established procedures which are intended to ensure that whistleblowing concerns are investigated, and appropriate and consistent action is taken. ▲

Compliance and risk training

EDTF | We have a mandatory training program in place for all employees covering a range of compliance and risk-related topics, including anti-money laundering and operational risk. In addition, more specialized training is provided for employees depending on their specific roles and responsibilities, such as training on credit risk and market risk for those working in trading areas. During 2015, our employees and external staff were required to complete over 800,000 mandatory training sessions, an increase of approximately 14% from 2014. Approximately 65% of these sessions were produced by Compliance and Operational Risk Control (C&ORC), as we continue to focus on strengthening our risk culture. As a rule, the training sessions need to be completed, usually together with an assessment, within a specified deadline. Failure to complete mandatory training sessions satisfactorily within the given deadline results in consequences including disciplinary action. In 2015, our ultimate completion rate for these mandatory training sessions was 100%. ▲

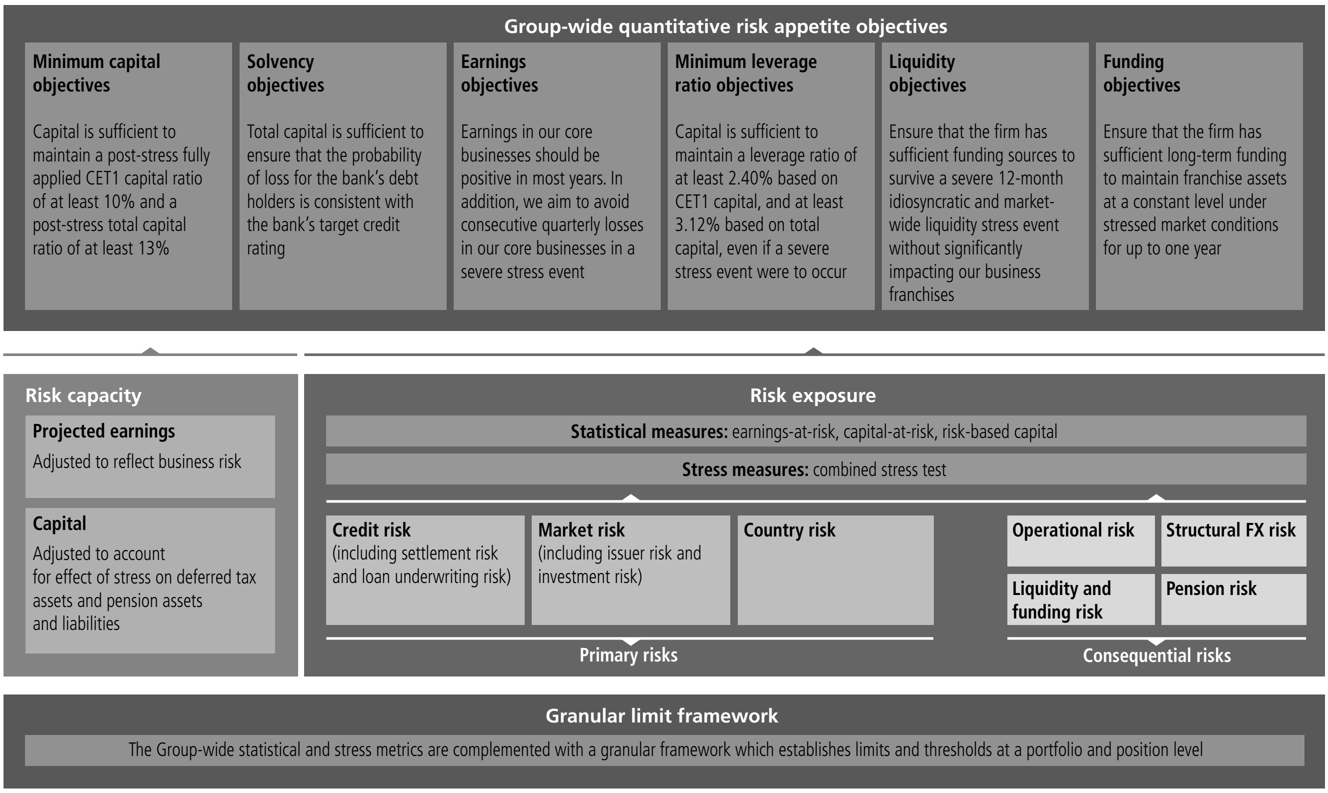
Quantitative risk appetite objectives

EDTF | Pillar 3 | Through a set of quantitative risk appetite objectives, we aim to ensure that our aggregate risk exposure remains within our desired risk capacity, based on our capital and business plans. The specific definition of risk capacity for each objective seeks to ensure that we have sufficient capital, earnings and funding liquidity to protect our business franchises and exceed minimum regulatory requirements under a severe stress event. The risk appetite objectives are evaluated as part of the annual business planning process, and approved by the BoD. The comparison of risk exposure with risk capacity is a key consideration in management decisions on potential adjustments to the business strategy and the risk profile of the Group.

We make use of both scenario-based stress tests and statistical risk measurement techniques to assess the impact of a severe stress event at a Group-wide level. These complementary frameworks capture exposures to all material primary and consequential risks across our business divisions and Corporate Center units. ▲▲

➔ Refer to "Risk measurement" in this section for more information on our stress test and statistical frameworks

EDTF | Pillar 3 | **Quantitative risk appetite objectives**



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EDTF | Pillar 3 | Risk appetite objectives at the business division level are logically derived from and must conform to the Group-wide objectives. They may also comprise objectives specific to the division, related to the specific activities and risks in that division. Risk appetite objectives are also set for certain legal entities. These must be consistent with the Group-wide Risk Appetite Framework and approved in accordance with the regulations of the legal entity and the firm's regulations. Differences may exist that reflect the specific nature, size, complexity and regulations applicable to the relevant legal entity.

In determining our risk capacity, we adjust projected earnings from the strategic plan for business risk to reflect lower expected earnings and lower expenses, for example due to the reversal of variable compensation accruals in a severe stress event. We also adjust our capital to take into account the impact of stress on deferred tax assets, pension plan assets and liabilities, and accruals for capital returns to shareholders.

The chart on the previous page provides an overview of our quantitative risk appetite objectives. ▲▲

Risk measurement

Audited | EDTF | Pillar 3 | A variety of methodologies and measurements are applied to quantify the risks of our portfolios and potential risk concentrations. Risks that are not fully reflected within standard measures are subject to additional controls, which may include pre-approval of specific transactions and the application of specific restrictions. Models to quantify risk are generally developed by dedicated units within control functions and are subject to independent verification. ▲

Applied models and methodologies must be approved and regularly reviewed in accordance with regulatory requirements as well as internal policies to test that models perform as expected, produce results comparable with actual events and values, and reflect best-in-practice approaches as well as recent academic developments. Accordingly, we assess whether the model is performing satisfactorily, whether additional analysis is required, and whether recalibration or redevelopment needs to be performed. Results and conclusions are presented to the relevant governance body and, as required, to regulators.

The ongoing process of assessing model quality and performance in the production environment comprises two components: model verification, being the initial and regular assessment of the model's conceptual soundness, performed by Quantitative Risk Control (QRC), and model confirmation, representing the regular process of confirming the accuracy and appropriateness of the model output and its application, carried out by the model developers and reviewed by QRC. ▲▲

➔ **Refer to "Credit risk," "Market risk" and "Operational risk" in this section for more information on model confirmation procedures**

Stress testing

EDTF | We perform stress testing to quantify the loss that could result from extreme, yet plausible macroeconomic and geopolitical stress events. This enables us to identify, better understand and manage our potential vulnerabilities and risk concentrations. Stress testing plays a key role in our limits framework at Group-wide, business division, legal entity and portfolio levels. Stress test results are regularly reported to the BoD, the Risk Committee and the GEB. We also provide detailed stress loss analyses to the Swiss Financial Market Supervisory Authority (FINMA) in accordance with its requirements. As described in the "Risk appetite framework" section above, stress testing, along with statistical loss measures, plays a central role in our risk appetite and business planning processes.

Our stress testing framework incorporates three pillars: (i) combined stress tests, (ii) a comprehensive range of portfolio and risk-type-specific stress tests and (iii) reverse stress testing.

Our *combined stress test (CST)* framework is scenario-based and aims to quantify overall Group-wide losses which could result from a number of potential global systemic events. The framework captures all material primary and consequential risks, as well as business risks, as indicated in the "Risk categories" section above. Scenarios are forward-looking and encompass macroeconomic and geopolitical stress events calibrated to different levels of potential severity. Each scenario is implemented through the expected evolution of market indicators and economic variables under that scenario. The resulting effect on our primary, consequential and business risks is then assessed to estimate the overall loss and capital implications were the scenario to occur. At least once a year, the Risk Committee approves the most relevant scenario, known as the binding scenario, to be used as the main scenario for regular CST reporting and for monitoring risk exposure against our minimum capital, earnings and leverage ratio objectives in our risk appetite framework. Results are reported to, and discussed with, the Risk Committee and the GEB on a monthly basis and reported to the BoD and FINMA monthly.

Within the overall model governance framework overseen by the Group CRO and Group CFO, the Enterprise-wide Stress Committee (ESC) is responsible for ensuring the consistency and adequacy of the assumptions and scenarios used for our Group-wide stress measures. As part of these responsibilities, the ESC is charged with ensuring that the suite of stress scenarios adequately reflects current and potential developments in the macroeconomic and geopolitical environment, our current and planned business activities, and actual or potential risk concentrations and vulnerabilities in our portfolios. The ESC meets at least quarterly and is comprised of Group, business division and legal entity representatives of Risk Control. In executing its responsibilities, the ESC considers input from the Risk "Think Tank," a panel of senior representatives from the business divisions, Risk Control and economic research, which meets quarterly to review the current and possible future market environment, with the aim of identifying potential stress scenarios which could materially affect the Group's profitability. This results in a range of internal stress scenarios that are developed and evolve over time, separate from the scenarios mandated by FINMA.

Each scenario captures a wide range of macroeconomic variables that are considered relevant to assessing the effect of the stress scenario on our portfolios. These include gross domestic product (GDP), equity indices, interest rates, foreign exchange rates, commodities, property prices and unemployment. Assumed changes in these macroeconomic variables in each scenario are used to stress the key risk drivers of our portfolios. For example, lower GDP growth and rising interest rates may reduce the income of clients to whom we have lent money, leading to changes in the credit risk parameters for probability of default, loss given default and exposure at default, and resulting in higher predicted credit losses in the stress scenario. We also capture the business risk resulting from lower fee, interest and trading income, and lower expenses. These effects are measured across all material risk types and all businesses to calculate the aggregate estimated effect of the scenario on profit and loss, other comprehensive income, RWA, Swiss SRB leverage ratio denominator (LRD) and, ultimately, our capital and leverage ratios. The assumed changes in macroeconomic variables are updated periodically to take account of changes in the current and possible future market environment.

Through 2015, the binding scenario for CST was the internal *Eurozone Crisis scenario*, which assumed a sharp deterioration in the eurozone economy triggering sovereign and bank defaults in certain peripheral countries, a downturn in financial markets and contagion to the global economy. CST risk exposure was broadly stable over the year with most of the month-to-month variability in this measure coming from temporary loan underwriting exposure in the Investment Bank.

As part of the CST framework, five additional stress scenarios were routinely monitored throughout 2015.

– *Recession scenario* represents renewed financial market turmoil due to the failure of a major global financial institution, leading to prolonged financial deleveraging and dramatically plunging activity around the globe.
– *US Crisis scenario* represents a loss of confidence in the US, leading to international portfolio repositioning out of US dollar-denominated assets, sparking an abrupt and substantial US dollar sell-off. The US is pushed back into recession, other industrialized countries replicate this pattern and inflationary concerns lead to an overall higher interest rate level.
– *China Hard Landing scenario* represents an economic correction in China with the resulting impact on the global economy, particularly emerging markets.
– *Middle East / North Africa scenario* represents a spill-over of political upheaval leading to a spike in oil prices and a recession in developed countries.
– *Depression scenario* represents a more pronounced and prolonged version of the Eurozone Crisis scenario. Additional peripheral countries default and exit the eurozone, and advanced economies are pulled into a prolonged period of economic stagnation.

As a result of the recent market developments, the main stress scenario used in our business planning process is a new *Global Recession* scenario, which combines elements of the *Eurozone Crisis* and *China Hard Landing scenarios*. The *Global Recession scenario* assumes that a hard landing in China would lead to severe contagion of Asian and emerging markets economies, while multiple debt restructurings in Europe, related direct losses for European banks and fear of a eurozone breakup would severely affect developed markets such as Switzerland, the UK and the US. This *Global Recession scenario* has replaced the *Eurozone Crisis scenario* in our suite of combined stress testing scenarios, and was adopted as the binding scenario at the end of 2015, ensuring that the potential effects of a China-led global economic slowdown are captured in the calculation of our post-stress fully applied common equity tier 1 (CET1) capital ratio.

Portfolio-specific stress tests are measures that are tailored to the risks of specific portfolios. Our portfolio stress loss measures are informed by past events, but also include forward-looking elements. For example, the expected market movements within our liquidity adjusted stress metric are derived using a combination of historical market behavior, based on an analysis of historical events, and forward-looking analysis including consideration of defined scenarios that have not occurred historically. Results of portfolio-specific stress tests may be subject to limits to explicitly control risk-taking, or may be monitored without limits to identify vulnerabilities.

Reverse stress testing starts from a defined stress outcome (for example, a specified loss amount, reputational damage, a liquidity shortfall, or a breach of regulatory capital ratios) and works backwards to identify the economic or financial scenarios that could result in such an outcome. As such, reverse stress testing is intended to complement forward stress tests by assuming "what if" outcomes that could extend beyond the range normally considered, and thereby potentially challenge assumptions regarding severity and plausibility. The results of reverse stress testing are reported to relevant governance bodies according to the materiality and scope of the exercise.

Additionally, we routinely analyze the effect of increases or decreases in interest rates and changes in the structure of yield curves.

Moreover, Group Treasury perform stress testing to determine the optimum asset and liability structure that allows us to maintain an appropriately balanced liquidity and funding position under various scenarios. These scenarios differ from those outlined above, because they are focused on specific situations which could generate liquidity and funding stress, as opposed to the scenarios used in the CST framework, which focus on the impact on profit and loss and capital.

Most major financial firms employ stress tests, but their approaches vary significantly, having been tailored to their individual business models and portfolios. Moreover, there is a lack of industry standards defining stress scenarios or the way they should be applied to a firm's risk exposures. Consequently, comparisons of stress test results between firms can be misleading and, therefore, like many of our peers, we do not publish quantitative stress test results of our internal stress tests. ▲

➔ Refer to "Credit risk," and "Market risk" in this section for more information on stress loss measures

➔ Refer to "Our stated capital returns objective is based, in part, on capital ratios that are subject to regulatory change and may fluctuate significantly" in the "Risk factors" section of this report for more information

Statistical measures

EDTF | In addition to our scenario-based CST measure, we employ a statistical stress framework that allows us to calculate and aggregate risks using statistical techniques, enabling us to derive stress events at chosen confidence levels.

This framework is used to derive a distribution of potential earnings based on historically observed market changes in combination with the firm's actual risk exposures, considering effects on both income and expenses. From this we determine earnings-at-risk (EaR), which measures the potential shortfall in earnings (i.e., the deviation from forecasted earnings) at a 95% confidence level and is evaluated over a one-year horizon. EaR is used for the assessment of the earnings objectives in our risk appetite framework.

We extend the EaR measure by incorporating the effects of gains and losses recognized through other comprehensive income, to derive a distribution of potential effects of stress events on common equity tier 1 (CET1) capital. From this distribution, we derive our capital-at-risk (CaR) buffer measure at a 95% confidence level for the assessment of our capital and leverage ratio risk appetite objectives, and we derive our CaR solvency measure at a 99.9% confidence level for the assessment of our solvency risk appetite objective.

The CaR solvency measure is also used as the basis to derive the contributions of business divisions and Corporate Center to risk-based capital (RBC), which is a core component of our equity attribution framework. RBC measures the potential capital impairment from an extreme stress event at a 99.9% confidence level to estimate the capital required to absorb unexpected loss while remaining able to fully repay all creditors. We revised several elements of the RBC model during the year. The net effect of these model changes was a moderate increase in the overall level of RBC. ▲

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

Portfolio and position limits

EDTF | The Group-wide stress and statistical metrics are complemented by lower-level portfolio and position limits, triggers and targets. The combination of these measures provides for a comprehensive, granular control framework which is applied to our business divisions and Corporate Center, as well as the significant legal entities as relevant to the key risks arising from their business models.

We apply limits to a variety of exposures at the portfolio level, using statistical and stress-based measures, such as value-at-risk, liquidity adjusted stress, notional loan underwriting limits, economic value sensitivity and portfolio default simulations for our loan books. These are complemented with a set of controls for net interest income sensitivity, mark-to-market losses on available-for-sale portfolios, and the effect of foreign exchange movements on capital and capital ratios.

Portfolio measures are supplemented with position-level controls. Risk measures for position controls are based on market risk sensitivities and counterparty-level credit risk exposures. Market risk sensitivities include sensitivities to changes in general market risk factors such as equity indices, foreign exchange rates and interest rates, and sensitivities to issuer-specific factors such as changes in an issuer's credit spread or default risk. We monitor a significant number of market risk controls for the Investment Bank and Corporate Center – Group Asset and Liability Management and Non-core and Legacy Portfolio on a daily basis. Counterparty measures capture the current and potential future exposure to an individual counterparty taking into account collateral and legally enforceable netting agreements. ▲

Risk concentrations

Audited | EDTF | Pillar 3 | A risk concentration exists where (i) a position is affected by changes in a group of correlated factors, or a group of positions are affected by changes in the same risk factor or a group of correlated factors, and (ii) the exposure could, in the event of large but plausible adverse developments, result in significant losses. The categories in which risk concentrations may occur include counterparties, industries, legal entities, countries or geographical regions, products and businesses. ▲▲

The identification of risk concentrations requires judgment, as potential future developments cannot be accurately predicted and may vary from period to period. In determining whether we have a risk concentration, we consider a number of elements, both individually and collectively. These elements include the shared characteristics of the positions and our counterparties, the size of the position or group of positions, the sensitivity of the position or group of positions to changes in risk factors and the volatility and correlations of those factors. Also important in our assessment is the liquidity of the markets where the positions are traded, and the availability and effectiveness of hedges or other potential risk-mitigating factors. The value of a hedging instrument may not always move in line with the position being hedged, and this mismatch is referred to as basis risk.

Risk concentrations are subject to increased oversight by Risk Control and are assessed to determine whether they should be reduced or mitigated depending on the available means to do so. It is possible that material losses could occur on asset classes, positions and hedges, particularly if the correlations that emerge in a stressed environment differ markedly from those envisaged by our risk models. ▲

➔ **Refer to "Credit risk" and "Market risk" in this section for more information on the compositions of our portfolios**

➔ **Refer to the "Risk factors" section of this report for more information**

Credit risk

Audited | EDTF | Pillar 3 | **Main sources of credit risk**

- A substantial portion of our lending exposure arises from our Swiss domestic business, which offers corporate loans and mortgage loans secured against residential properties and income-producing real estate, and is therefore tied to the health of the Swiss economy.
- Within the Investment Bank, our credit exposure is predominantly investment grade. Loan underwriting activity gives rise to concentrated exposure of a temporary nature.
- Our wealth management businesses conduct securities-based lending and mortgage lending.
- Credit risk within Non-core and Legacy Portfolio relates to derivatives transactions, predominantly carried out on a cash-collateralized basis, and securitized positions. ▲▲▲

Audited | EDTF | Pillar 3 | **Overview of measurement, monitoring and management techniques**

- Credit risk arising from transactions with individual counterparties is measured according to our estimates of probability of default, exposure at default and loss given default. Limits are established for individual counterparties and groups of related counterparties covering banking and traded products as well as settlement amounts. Risk control authorities are approved by the Board of Directors and are delegated to the Group Chief Executive Officer, Group Chief Risk Officer and divisional Chief Risk Officers based on risk exposure amounts and internal credit rating.
- Limits apply not only to the current outstanding amount, but also to contingent commitments and the potential future exposure of traded products.
- For the Investment Bank, our monitoring, measurement and limit framework distinguishes between exposures intended to be held to maturity (take-and-hold exposures) and those which are intended to be held for a short term, pending distribution or risk transfer (temporary exposures).
- We also use models to derive portfolio credit risk measures of expected loss, statistical loss and stress loss at the Group-wide and business division levels and establish portfolio level limits at these levels.
- Credit risk concentrations can arise if clients are engaged in similar activities, are located in the same geographical region or have comparable economic characteristics, for example, if their ability to meet contractual obligations would be similarly affected by changes in economic, political or other conditions. To avoid credit risk concentrations, we establish limits and/or operational controls that constrain risk concentrations at portfolio and sub-portfolio levels with regard to sector exposure, country risk and specific product exposures. ▲▲▲

Credit risk profile of the Group – IFRS view

Maximum exposure to credit risk

Audited | EDTF | The tables on the following pages provide the Group'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. This view is in accordance with International Financial Reporting Standards (IFRS). 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.

Further on in this section, we provide complementary views of credit risk based on our internal management view, which can differ in certain respects from the requirements of IFRS. ▲▲

➔ **Refer to the "UBS Group AG consolidated supplemental disclosures required under Basel III Pillar 3 regulations" section of this report for more information on the credit exposures used in the determination of our required regulatory capital and additional information on credit derivatives**

Risk, treasury and capital management

Audited | EDTF |

Maximum exposure to credit risk

	31.12.15							
		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	**89.8**							
Due from banks[2]	**11.9**		**0.2**					**0.1**
Loans	**312.0**	**13.1**	**101.0**	**164.4**	**15.2**		**0.4**	**2.9**
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]	**23.8**					**12.4**		
Other assets	**20.0**		**11.1**					
Total financial assets measured at amortized cost	**550.9**	**13.1**	**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[5,6]	**29.0**							
Financial assets designated at fair value – debt instruments[7]	**5.6**		**3.5**		**0.1**		**0.6**	
Financial investments available-for-sale – debt instruments[7]	**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	**814.7**	**13.1**	**209.4**	**164.4**	**19.8**	**155.2**	**1.0**	**3.0**
Guarantees[8]	**16.0**	**1.2**	**2.1**	**0.2**	**1.5**		**0.1**	**3.0**
Loan commitments[8]	**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[9]	**893.3**	**14.3**	**220.0**	**166.3**	**30.1**	**155.2**	**8.1**	**8.0**

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Maximum exposure to credit risk (continued)

	31.12.14							
		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	102.3							
Due from banks[2]	13.3		0.2					0.2
Loans	315.8	14.3	94.8	166.1	21.2		0.7	2.6
Cash collateral on securities borrowed	24.1		23.8					
Reverse repurchase agreements	68.4		63.2		4.7			
Cash collateral receivables on derivative instruments[3]	31.0					20.4		
Other assets	21.2		12.7					0.0
Total financial assets measured at amortized cost	576.1	14.4	194.7	166.1	25.9	20.4	0.7	2.8
Financial assets measured at fair value on the balance sheet								
Positive replacement values[4]	257.0		5.7			223.9		
Trading portfolio assets – debt instruments[5,6]	31.8							
Financial assets designated at fair value – debt instruments[7]	4.3		3.3		0.1		0.7	
Financial investments available-for-sale – debt instruments[7]	56.2							
Total financial assets measured at fair value	349.4	0.0	9.0	0.0	0.1	223.9	0.7	0.0
Total maximum exposure to credit risk reflected on the balance sheet	925.4	14.4	203.6	166.1	26.0	244.2	1.4	2.8
Guarantees[8]	17.7	1.4	1.7	0.2	1.9		0.8	3.1
Loan commitments[8]	50.7	0.1	3.8	1.9	9.2		8.5	1.6
Forward starting transactions, reverse repurchase and securities borrowing agreements	10.4		10.4					
Total maximum exposure to credit risk not reflected on the balance sheet	78.8	1.4	16.0	2.1	11.1	0.0	9.3	4.7
Total[9]	1,004.2	15.8	219.6	168.2	37.1	244.2	10.7	7.5

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. The amount shown in the netting column represents the netting potential not recognized in the balance sheet. Refer to "Note 26 Offsetting financial assets and financial liabilities" for more information. 4 The amount shown in the netting column represents the netting potential not recognized in the balance sheet. Refer to "Note 26 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of this report for more information. 5 These positions are generally managed under the market risk framework and are included in VaR. For the purpose of this disclosure, collateral and credit enhancements were not considered. 6 Does not include debt instruments held for unit-linked investment contracts and investment fund units. 7 Does not include investment fund units. 8 The amount shown in the "Guarantees" column largely relates to sub-participations. Refer to the "Off-balance sheet" section in this report for more information. 9 As of 31 December 2015, total maximum exposure to credit risk for UBS AG (consolidated) was CHF 0.7 billion higher than for UBS Group, all related to unsecured "Loans". As of 31 December 2014, total maximum exposure to credit risk for UBS AG (consolidated) was CHF 0.3 billion higher than for UBS Group, of which CHF 0.2 billion related to unsecured "Loans" and CHF 0.1 billion related to unsecured "Other assets."

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Financial assets subject to credit risk by rating category

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**	**0.7**			**11.9**
Loans	**31.9**	**132.1**	**67.5**	**61.4**	**17.7**	**1.4**	**312.0**
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**
Financial investments available-for-sale – debt instruments[3]	**52.4**	**9.2**					**61.7**
Other financial instruments[4]	**0.3**	**2.7**	**8.6**	**11.0**	**2.7**	**0.4**	**25.6**
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 reverse repurchase agreements		**6.5**		**0.0**			**6.6**
Forward starting securities borrowing agreements							**0.0**
Total[5]	**242.6**	**366.0**	**152.1**	**100.8**	**29.6**	**2.2**	**893.3**

CHF billion	31.12.14						
Rating category[1]	0–1	2–3	4–5	6–8	9–13	defaulted	Total
Balances with central banks	102.0	0.3					102.3
Due from banks	1.5	8.3	2.9	0.5	0.1		13.3
Loans	29.1	140.0	61.2	66.6	17.8	1.2	315.8
Cash collateral on securities borrowed and reverse repurchase agreements	1.9	66.2	11.7	11.4	1.2		92.5
Positive replacement values	18.7	203.1	26.3	7.8	0.8	0.3	257.0
Cash collateral receivables on derivative instruments	4.8	20.5	5.0	0.7			31.0
Trading portfolio assets – debt instruments[2]	12.2	10.9	3.5	2.6	2.6		31.8
Financial investments available-for-sale – debt instruments[3]	46.5	9.6	0.1				56.2
Other financial instruments[4]	0.1	3.8	8.5	13.0	0.1	0.1	25.6
Guarantees, commitments and forward starting transactions							
Guarantees	2.8	7.5	3.3	3.1	0.7	0.2	17.7
Loan commitments	1.3	28.7	8.1	6.4	6.4		50.7
Forward starting reverse repurchase agreements		9.8	0.5				10.3
Forward starting securities borrowing agreements		0.1					0.1
Total[5]	**220.9**	**508.6**	**131.1**	**112.0**	**29.6**	**2.0**	**1,004.2**

1 Refer to the "Internal UBS rating scale and mapping of external ratings" table in this section 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. 4 Comprised of financial assets designated at fair value – debt instruments (excluding investment fund units) and other assets. 5 As of 31 December 2015, total financial assets subject to credit risk for UBS AG (consolidated) was CHF 0.7 billion higher than for UBS Group, all related to "Loans" in rating categories 4–5. As of 31 December 2014, total financial assets subject to credit risk for UBS AG (consolidated) was CHF 0.3 billion higher than for UBS Group, of which CHF 0.2 billion related to "Loans" and CHF 0.1 billion related to "Other assets," all in rating categories 6–8.

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Impaired financial instruments

Audited | EDTF | Pillar 3 | The following tables show impaired financial instruments, comprising loans, guarantees and loan commitments, and securities financing transactions. Gross impaired financial instruments increased slightly by CHF 0.1 billion to CHF 1.5 billion as of 31 December 2015. After deducting the estimated liquidation proceeds of collateral and specific allowances and provisions, net impaired financial instruments was CHF 0.6 billion as of 31 December 2015 compared with CHF 0.5 billion at the end of the prior year.

The table on the next page provides a breakdown of movements in the specific and collective allowances and provisions for impaired financial instruments. ▲▲▲

➔ **Refer to the "Investment Bank, Non-Core and Legacy Portfolio, and Group ALM: distribution of net OTC derivatives and SFT exposure across internal UBS ratings and loss given default (LGD) buckets" table in this section for OTC derivative exposures in the Investment Bank and Non-core and Legacy Portfolio which are rated at level 13 or in default according to our internal rating scale**

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Impaired financial instruments by type

CHF million	Gross impaired financial instruments		Allowances and provisions[1]		Estimated liquidation proceeds of collateral[2]		Net impaired financial instruments	
	31.12.15	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14
Loans (including due from banks)	**1,226**	1,204	**(692)**	(708)	**(163)**	(180)	**371**	316
Guarantees and loan commitments	**292**	187	**(35)**	(23)	**(4)**	(1)	**252**	162
Defaulted securities financing transactions		5		(4)		(1)		0
Total impaired financial instruments	**1,518**	1,396	**(727)**	(735)	**(168)**	(182)	**623**	479

1 Includes CHF 6 million in collective loan loss allowances (31 December 2014: CHF 8 million). 2 Does not include oil and gas reserves related to reserve-based lending. ▲▲▲

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Impaired financial instruments by geographical region

CHF million	Impaired financial instruments	Specific allowances and provisions	Impaired financial instruments net of specific allowances and provisions	Collective allowances	**Total allowances and provisions 31.12.15**	Total allowances and provisions 31.12.14
Asia Pacific	92	(58)	34	0	**(58)**	(38)
Latin America	29	(21)	9	0	**(21)**	(19)
Middle East and Africa	12	(6)	6	0	**(6)**	(22)
North America	229	(107)	123	(2)	**(108)**	(50)
Switzerland	924	(364)	559	(4)	**(369)**	(411)
Rest of Europe	231	(165)	66	0	**(165)**	(194)
Total 31.12.15	**1,518**	**(721)**	**797**	**(6)**	**(727)**	
Total 31.12.14	1,396	(727)	668	(8)		(735)

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EDTF | **Pillar 3** |

Impaired financial instruments by exposure segment

CHF million	Impaired financial instruments	Specific allowances and provisions	Collective allowances	**Total allowances and provisions 31.12.15**	Write-offs for the year ended 31.12.15	Total allowances and provisions 31.12.14[2]
Sovereigns	12	(14)	0	**(14)**	(1)	(14)
Banks	7	(6)	0	**(6)**	0	(15)
Corporates	1,236	(589)		**(589)**	(136)	(609)
Central Counterparties	0	0	0	**0**	0	0
Retail						
Residential mortgages	*125*	*(40)*	*0*	***(40)***	*0*	*(39)*
Lombard lending	*63*	*(47)*	*0*	***(47)***	*(2)*	*(19)*
Qualifying revolving other retail exposures	*24*	*(17)*	*0*	***(17)***	*(24)*	*(16)*
Other retail	*51*	*(9)*		***(9)***	*(2)*	*(15)*
Non allocated segment[1]	0		(6)	**(6)**	0	(8)
Total 31.12.15	**1,518**	**(721)**	**(6)**	**(727)**	**(164)**	
Total 31.12.14	1,396	(727)	(8)		(154)	(735)

1 With the exception of Wealth Management Americas Lombard lending, collective loan loss allowances are not allocated to individual counterparties. 2 Following improvements in data sourcing, the allocation to the exposure segments for 31 December 2014 have been restated to ensure comparability with the figures as of 31 December 2015.

EDTF | **Pillar 3** |

Changes in allowances and provisions

CHF million	Specific allowances and provisions for banking products and securities financing	Collective allowances	**For the year ended 31.12.15**	For the year ended 31.12.14
Balance at the beginning of the year	727	8	**735**	750
Write-offs / usage of provisions	(162)	(2)	**(164)**	(154)
Recoveries	48	0	**48**	29
Increase / (decrease) recognized in the income statement	117	0	**117**	78
Foreign currency translation	(11)	0	**(11)**	21
Other	2	0	**2**	11
Balance at the end of the year	**721**	**6**	**727**	735

Impaired loans

EDTF | Pillar 3 | Gross impaired loans (including due from banks) increased slightly to CHF 1,226 million as of 31 December 2015 from CHF 1,204 million at the end of the prior year. The majority of this exposure relates to loans in our Swiss domestic business, although also reflects new impairments related to lending to the energy sector in the Investment Bank. The ratio of impaired loans to total loans remained unchanged at 0.4%.

Audited | As of 31 December 2015, collateral held against our impaired loan exposure mainly consisted of real estate and securities. It is our policy to dispose of foreclosed real estate as soon as practicable. The carrying amount of foreclosed property recorded in our balance sheet under *Other assets* at the end of 2015 and 2014 amounted to CHF 44 million and CHF 43 million, respectively. We seek to liquidate collateral held in the form of financial assets expeditiously and at prices considered fair. This may require us to purchase assets for our own account, where permitted by law, pending orderly liquidation. ▲

Specific and collective allowances and provisions for credit losses decreased slightly by CHF 8 million to CHF 727 million as of 31 December 2015. This includes collective loan loss allowances of CHF 6 million, a reduction of CHF 2 million from the prior year.

The "Loss history statistics" table below provides a five-year history of our credit loss experience for loans (including due from banks) relative to our impaired and non-performing loans. ▲▲

➔ **Refer to "Policies for past due, non-performing and impaired claims" in this section, and to "Note 10 Due from banks and loans (held at amortized cost)" and "Note 12 Allowances and provisions for credit losses" in the "Consolidated financial statements" section of this report for more information**

EDTF |

Loss history statistics

CHF million, except where indicated	**31.12.15**	31.12.14	31.12.13	31.12.12	31.12.11
Due from banks and loans (gross)	**324,594**	329,800	301,601	301,849	290,664
Impaired loans (including due from banks)	**1,226**	1,204	1,241	1,606	2,155
Non-performing loans (including due from banks)	**1,630**	1,602	1,582	1,516	1,529
Allowances and provisions for credit losses[1,2]	**727**	735	750	794	938
of which: allowances for due from banks and loans[1]	***692***	*708*	*686*	*728*	*842*
Net write-offs[3]	**116**	124	83	250	450
of which: net write-offs for due from banks and loans	***116***	*124*	*83*	*250*	*413*
Credit loss (expense) / recovery[4]	**(117)**	(78)	(50)	(118)	(84)
of which: credit loss (expense) / recovery for due from banks and loans	***(117)***	*(78)*	*(50)*	*(134)*	*(126)*
Ratios					
Impaired loans as a percentage of due from banks and loans (gross)	**0.4**	0.4	0.4	0.5	0.7
Non-performing loans as a percentage of due from banks and loans (gross)	**0.5**	0.5	0.5	0.5	0.5
Allowances as a percentage of due from banks and loans (gross)	**0.2**	0.2	0.2	0.2	0.3
Net write-offs as a percentage of average due from banks and loans (gross) outstanding during the period	**0.0**	0.0	0.0	0.1	0.1

1 Includes collective loan loss allowances. 2 Includes provisions for loan commitments and allowances for securities financing transactions. 3 Includes net write-offs for loan commitments and securities financing transactions. 4 Includes credit loss (expense) / recovery for loan commitments and securities financing transactions. ▲

EDTF | **Pillar 3** |

Allowances and provisions for credit losses[1]

	IFRS exposure, gross[2]		Impaired exposure, gross		Estimated liquidation proceeds of collateral[3]		Allowances and provisions for credit losses[4]		Impairment ratio (%)	
CHF million, except where indicated	**31.12.15**	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14
Group										
Balances with central banks	**89,776**	102,303								
Due from banks	**11,951**	13,347	**1**	11			**3**	13	**0.0**	0.1
Loans	**312,643**	316,452	**1,225**	1,192	**163**	180	**689**	695	**0.4**	0.4
Guarantees	**16,019**	17,694	**256**	180	**4**	1	**32**	23	**1.6**	1.0
Loan commitments	**56,067**	50,688	**36**	7			**3**		**0.1**	0.0
Total	**486,456[5]**	500,483[5]	**1,518**	1,391	**168**	181	**727**	731	**0.3**	0.3
Wealth Management										
Balances with central banks	**1,344**	320								
Due from banks	**1,107**	1,326								
Loans	**105,167**	112,701	**109**	81	**19**	3	**89**	70	**0.1**	0.1
Guarantees	**2,267**	2,021					**1**	1		
Loan commitments	**1,270**	1,960								
Total	**111,155**	118,328	**109**	81	**19**	3	**90**	70	**0.1**	0.1
Wealth Management Americas										
Balances with central banks	**0**	0								
Due from banks	**1,899**	2,074								
Loans	**48,754**	44,356	**29**	26			**28**	27	**0.1**	0.1
Guarantees	**747**	756								
Loan commitments	**279**	293								
Total	**51,678**	47,480	**29**	26	**0**	0	**28**	27	**0.1**	0.1
Personal & Corporate Banking										
Balances with central banks	**0**	0								
Due from banks	**1,493**	1,773	**1**	11			**3**	13	**0.1**	0.6
Loans	**135,616**	137,417	**870**	1,035	**144**	176	**496**	568	**0.6**	0.8
Guarantees	**7,900**	8,670	**255**	180	**4**	1	**31**	23	**3.2**	2.1
Loan commitments	**8,463**	8,352	**20**	5					**0.2**	0.1
Total	**153,473**	156,211	**1,146**	1,231	**149**	178	**530**	603	**0.7**	0.8
Asset Management										
Balances with central banks	**0**	0								
Due from banks	**433**	566								
Loans	**11**	364								
Guarantees	**0**	0								
Loan commitments	**0**	0								
Total	**443**	930	**0**	0	**0**	0	**0**	0	**0.0**	0.0
Investment Bank										
Balances with central banks	**345**	76								
Due from banks	**4,177**	4,505								
Loans	**13,088**	12,033	**202**	38			**62**	24	**1.5**	0.3
Guarantees	**4,958**	5,902	**1**						**0.0**	
Loan commitments	**44,648**	36,333	**15**	2			**3**		**0.0**	0.0
Total	**67,217**	58,848	**219**	41	**0**	0	**65**	24	**0.3**	0.1

Allowances and provisions for credit losses (continued)

	IFRS exposure, gross[2]		Impaired exposure, gross		Estimated liquidation proceeds of collateral[3]		Allowances and provisions for credit losses[4]		Impairment ratio (%)	
CHF million, except where indicated	**31.12.15**	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14
CC – Services										
Balances with central banks	**0**	0								
Due from banks	**576**	413								
Loans	**36**	31					**0**	0		
Guarantees	**11**	11								
Loan commitments	**0**	0								
Total	**623**	454	**0**	0	**0**	0	**0**	0	**0.0**	0.0
CC – Group ALM										
Balances with central banks	**88,087**	101,907								
Due from banks	**2,210**	2,563								
Loans	**6,788**	5,291								
Guarantees	**0**	0								
Loan commitments	**0**	0								
Total	**97,086**	109,761	**0**	0	**0**	0	**0**	0	**0.0**	0.0
CC – Non-core and Legacy Portfolio										
Balances with central banks	**0**	0								
Due from banks	**56**	127								
Loans	**3,183**	4,260	**15**	12			**14**	6	**0.5**	0.3
Guarantees	**137**	335								
Loan commitments	**1,406**	3,750								
Total	**4,782**	8,471	**15**	12	**0**	0	**14**	6	**0.3**	0.1

1 Excludes allowances for securities financing transactions (31 December 2015: CHF 0 million, 31 December 2014: CHF 4 million). 2 The measurement requirements of IFRS differ in certain respects from our internal management view of credit risk. 3 Does not include oil and gas reserves related to reserve-based lending. 4 Includes CHF 6 million (31 December 2014: CHF 8 million) in collective loan loss allowances for credit losses. 5 As of 31 December 2015, total IFRS exposure of UBS AG (consolidated) was CHF 0.7 billion higher than the exposure of UBS Group, related to receivables of UBS AG and UBS Switzerland AG against UBS Group AG.

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EDTF |

Development of individually impaired loans (including due from banks)

	For the year ended	
CHF million	**31.12.15**	31.12.14
Balance at the beginning of the year	**1,204**	1,241
New impaired loans	**465**	388
Increase in existing impaired loans	**71**	124
Repayments / sales / upgrades	**(354)**	(403)
Write-offs	**(162)**[1]	(154)
Foreign currency translations and other adjustments	**2**	6
Balance at the end of the year	**1,226**	1,204

1 Does not include CHF 2 million in write-offs charged directly to collective loan loss allowances.

▲

Past due but not impaired loans

EDTF | Pillar 3 | The table below shows a breakdown of total loan balances where payments have been missed, but which we do not consider impaired because we expect to collect all amounts due under the contractual terms of the loans or the equivalent value from liquidation of collateral. The loan balances in the table arise predominantly within Personal & Corporate Banking, where delayed payments are routinely observed and, to a lesser extent, Wealth Management.

The amount of past due but not impaired mortgage loans was not significant compared with the overall size of the mortgage portfolio. ▲▲

➔ **Refer to "Policies for past due, non-performing and impaired claims" in this section and "Note 1 Summary of significant accounting policies" in the "Consolidated financial statements" section of this report for more information on our impairment policies**

Audited | EDTF | Pillar 3 |

Past due but not impaired loans

CHF million	**31.12.15**	31.12.14
1–10 days	**141**	92
11–30 days	**69**	74
31–60 days	**37**	18
61–90 days	**16**	9
>90 days	**663**	769
of which: mortgage loans	***529***	*646*
Total	**927**	961

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EDTF | Pillar 3 |

Past due but not impaired mortgage loans

CHF million	**31.12.15**		31.12.14	
	Total mortgage loans	***of which: past due > 90 days but not impaired***	Total mortgage loans	*of which: past due > 90 days but not impaired*
Total	**153,044**	***529***	154,689	*646*

▲▲

Credit risk profile of the Group – Internal risk view

EDTF | The exposures detailed in this section are based on our internal management view of credit risk which differs in certain respects from the measurement requirements of IFRS.

Internally, we categorize credit risk exposures into two broad categories: banking products and traded products. Banking products comprise drawn loans, undrawn guarantees and loan commitments, due from banks and balances with central banks. Traded products comprise over-the-counter (OTC) derivatives, exchange-traded derivatives (ETD) and securities financing transactions (SFTs), comprised of securities borrowing and lending and repurchase and reverse repurchase agreements. ▲

Banking products

EDTF | The breakdowns of our banking product exposures are shown before and after allowances and provisions for credit losses and related single-name credit hedges. The effect of portfolio hedges, such as index CDSs, is not reflected. Guarantees and loan commitments are shown on a notional basis, without applying credit conversion factors.

Total gross banking products exposure decreased to CHF 485 billion as of 31 December 2015 compared with CHF 497 billion at the end of 2014, mainly due to decreases in balances with central banks in Corporate Center – Group ALM, partly offset by an increase in loan underwriting exposure at the end of the year in the Investment Bank. ▲

EDTF |

Banking products exposure by business division and Corporate Center unit

	31.12.15								
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**	**Group**
Balances with central banks	**1,344**	**0**	**0**	**0**	**345**	**0**	**88,087**	**0**	**89,776**
Due from banks	**1,107**	**1,899**	**1,493**	**433**	**9,544**	**576**	**2,210**	**35**	**17,297**
Loans[1]	**105,167**	**48,754**	**135,616**	**11**	**15,464**	**36**	**6,788**	**100**	**311,937**
Guarantees	**2,267**	**747**	**7,900**	**0**	**5,607**	**11**	**0**	**84**	**16,616**
Loan commitments	**1,270**	**279**	**8,463**	**0**	**37,867**	**0**	**0**	**1,472**	**49,352**
Banking products exposure[2]	**111,155**	**51,678**	**153,473**	**443**	**68,828**	**623**	**97,086**	**1,692**	**484,978[3]**
Banking products exposure, net[4]	**111,065**	**51,650**	**152,943**	**443**	**61,207**	**623**	**97,086**	**1,180**	**476,196**

	31.12.14								
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	Group
Balances with central banks	320	0	0	0	76	0	101,907	0	102,303
Due from banks	1,326	2,074	1,773	566	9,272	413	2,563	137	18,123
Loans[1]	112,701	44,356	137,417	364	15,688	31	5,291	199	316,046
Guarantees	2,021	756	8,670	0	6,501	11	0	234	18,193
Loan commitments	1,960	293	8,352	0	28,308	0	0	3,454	42,367
Banking products exposure[2]	118,328	47,480	156,211	930	59,845	454	109,761	4,024	497,033[3]
Banking products exposure, net[4]	118,257	47,453	155,608	930	50,986	454	109,761	2,622	486,071

1 Does not include reclassified securities and similar acquired securities in our CC – Non-core and Legacy Portfolio. 2 Excludes loans designated at fair value. 3 As of 31 December 2015, total banking products exposure of UBS AG (consolidated) was CHF 0.7 billion higher than the exposure of UBS Group, related to receivables of UBS AG and UBS Switzerland AG against UBS Group AG. 4 Net of allowances, provisions, and hedges.

▲

Wealth Management

EDTF | Gross banking products exposure within Wealth Management decreased to CHF 111 billion as of 31 December 2015 compared with CHF 118 billion as of 31 December 2014, as a result of client deleveraging in the Lombard book and due to a CHF 2 billion shift of Swiss-booked wealth management mortgage exposure to Personal & Corporate Banking.

Our Wealth Management loan portfolio is mainly secured by securities, residential property and cash as outlined in the "Wealth Management: loan portfolio, gross" table below. Most of the loans secured by securities were of high quality, with 95% rated investment grade as of 31 December 2015, based on our internal ratings, unchanged from 31 December 2014.

The portfolio of mortgage loans secured by properties outside Switzerland increased to CHF 6.0 billion as of 31 December 2015 from CHF 5.8 billion at the end of the prior year. The overall quality of this portfolio remained high, with an average loan-to-value (LTV) ratio of 56% in Europe and 42% in Asia Pacific.▲

Wealth Management Americas

EDTF | Gross banking products exposure within Wealth Management Americas increased to CHF 52 billion as of 31 December 2015 from CHF 47 billion as of 31 December 2014, driven by increased loan origination. This exposure largely relates to loans secured by securities and residential mortgage loans.

Out of the loans secured by securities, 96% were rated investment grade as of 31 December 2015, based on our internal ratings, unchanged compared with 31 December 2014. As of 31 December 2015, these investment grade loans reflect 80% of the total loan portfolio, compared with 81% as of 31 December 2014.

The mortgage loan portfolio consists primarily of residential mortgages offered in the US. Gross exposure increased to CHF 8.4 billion as of 31 December 2015 from CHF 7.6 billion at the end of the prior year. The overall quality of this portfolio remained high with an average LTV of 58%, unchanged from 2014, and we have experienced negligible credit losses since the inception of the mortgage program in 2009. The five largest geographic concentrations in the portfolio were in California (30%), New York (16%), Florida (9%), Texas (4%) and New Jersey (4%).

The amount of impaired loans increased to CHF 29 million as of 31 December 2015 from CHF 26 million at the end of the prior year, with most of the impairment relating to securities-backed loan facilities collateralized by Puerto Rico municipal securities and related funds.▲

EDTF |

Wealth Management: loan portfolio, gross

	31.12.15		31.12.14	
	CHF million	**%**	CHF million	%
Secured by residential property	**34,004**	**32.3**	36,018	32.0
Secured by commercial / industrial property	**1,998**	**1.9**	2,205	2.0
Secured by cash	**11,859**	**11.3**	13,354	11.8
Secured by securities	**50,123**	**47.7**	49,464	43.9
Secured by guarantees and other collateral	**6,851**	**6.5**	11,147	9.9
Unsecured loans	**333**	**0.3**	514	0.5
Total loans, gross	**105,167**	**100.0**	112,701	100.0
Total loans, net of allowances	**105,078**		112,631	

▲

EDTF |

Wealth Management Americas: loan portfolio, gross

	31.12.15		31.12.14	
	CHF million	**%**	CHF million	%
Secured by residential property	**8,378**	**17.2**	7,558	17.0
Secured by commercial / industrial property	**0**	**0.0**	0	0.0
Secured by cash	**1,020**	**2.1**	796	1.8
Secured by securities	**37,092**	**76.1**	33,983	76.6
Secured by guarantees and other collateral	**1,959**	**4.0**	1,746	3.9
Unsecured loans	**305**	**0.6**	274	0.6
Total loans, gross	**48,754**	**100.0**	44,356	100.0
Total loans, net of allowances	**48,726**		44,329	

▲

Personal & Corporate Banking

EDTF | As of 31 December 2015, gross banking products exposure within Personal & Corporate Banking was CHF 153 billion, a decrease of CHF 3 billion compared with 31 December 2014. Net banking products exposure also decreased by CHF 3 billion to CHF 153 billion, approximately 64% of which was classified as investment grade compared with 63% in the prior year. More than 80% of the exposure is categorized in the lowest loss given default (LGD) bucket of 0% to 25%.

The size of Personal & Corporate Banking's gross loan portfolio decreased slightly by CHF 2 billion to CHF 136 billion. At year-end 2015, 94% of this portfolio was secured by collateral, mainly residential and commercial property. Of the total unsecured amount, 66% related to cash flow-based lending to corporate counterparties and 18% related to lending to public authorities. Based on our internal ratings, 52% of the unsecured loan portfolio was rated investment grade compared with 53% in 2014.

Our Swiss mortgage portfolio, including Swiss mortgage loans originating from our Wealth Management business, is discussed further below.

Our Swiss corporate banking products portfolio, which totaled CHF 24.4 billion as of 31 December 2015 compared with CHF 25.5 billion as of 31 December 2014, consists of loans, guarantees and loan commitments to multinational and domestic counterparties. Although this portfolio is well diversified across industries, these 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. While credit loss expense for this portfolio has remained low in 2015, given the reliance of the Swiss economy on exports, the continuing strength of the Swiss franc may have a negative effect on the Swiss economy, which could 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.

The delinquency ratio, being the ratio of past due but not impaired loans to total loans, was 0.7% for the corporate loan portfolio as of 31 December 2015 compared with 0.6% as of 31 December 2014. ▲

➔ **Refer to "Credit risk models" in this section for more information on LGD, rating grades and rating agency mappings**

EDTF | Our mortgage loan portfolio secured by residential and commercial real estate in Switzerland continues to be our largest loan portfolio. These mortgage loans, totaling CHF 138 billion as of 31 December 2015, mainly originate from Personal & Corporate Banking, but also include mortgage loans originating from Wealth Management. As of 31 December 2015, the majority of these mortgage loans, CHF 124 billion related to residential properties that the borrower was either occupying or renting out, and where there was full recourse to the borrower. Of this CHF 124 billion, approximately CHF 88 billion related to properties occupied by the borrower, with an average LTV ratio of 51% as of 31 December 2015 compared with 52% as of 31 December 2014. The average LTV for newly originated loans for this portion was 62% in 2015, unchanged compared with 2014. The remaining CHF 36 billion of the Swiss residential mortgage loan portfolio relates to properties rented out by the borrower and the average LTV of this portfolio was 56% as of 31 December 2015, unchanged compared with 31 December 2014. The average LTV for newly originated Swiss residential mortgage loans was 57% in 2015 compared with 55% in 2014.

As illustrated in the "Swiss mortgages: distribution of net exposure at default (EAD) across exposure segments and loan-to-value (LTV) buckets," table, over 99% of the aggregate amount of Swiss residential mortgage loans would continue to be covered by the real estate collateral even if the value assigned to that collateral were to decrease by 20%, and more than 98% would remain covered by the real estate collateral even if the value assigned to that collateral were to decrease 30%. In this table, the amount of each mortgage loan is allocated across the LTV buckets to indicate the portion at risk at the various value levels shown. For example, a loan of CHF 75 billion with an LTV ratio of 75% (collateral value of CHF 100 billion) would result in allocations of CHF 30 billion in the less-than-30% bucket, CHF 20 billion in the 31–50% bucket, CHF 10 billion in the 51–60% bucket, CHF 10 billion in the 61–70% bucket and CHF 5 billion in the 71–80% bucket. ▲

EDTF |

Personal & Corporate Banking: loan portfolio, gross

	31.12.15		31.12.14	
	CHF million	**%**	CHF million	%
Secured by residential property	**100,181**	**73.9**	99,839	72.7
Secured by commercial/industrial property	**19,641**	**14.5**	20,202	14.7
Secured by cash	**242**	**0.2**	163	0.1
Secured by securities	**693**	**0.5**	794	0.6
Secured by guarantees and other collateral	**6,607**	**4.9**	6,884	5.0
Unsecured loans	**8,252**	**6.1**	9,536	6.9
Total loans, gross	**135,616**	**100.0**	137,417	100.0
Total loans, net of allowances	**135,120**		136,848	

▲

Risk, treasury and capital management

EDTF |

Personal & Corporate Banking: distribution of banking products exposure across internal UBS ratings and loss given default (LGD) buckets

CHF million, except where indicated	31.12.15						31.12.14[2]	
		LGD buckets				Weighted average		Weighted average
Internal UBS rating[1]	**Exposure**	**0–25%**	**26–50%**	**51–75%**	**76–100%**	**LGD (%)**	Exposure	LGD (%)
Investment grade	**98,283**	**83,011**	**13,163**	**1,945**	**164**	**16**	97,763	16
Sub-investment grade	**55,190**	**44,298**	**9,531**	**1,312**	**50**	**18**	58,448	18
of which: 6–9	***48,543***	***40,012***	***7,450***	***1,074***	***7***	***17***	*52,254*	*17*
of which: 10–12	***4,628***	***4,133***	***414***	***39***	***42***	***14***	*4,156*	*14*
of which: 13 and defaulted	***2,019***	***153***	***1,667***	***199***		***38***	*2,038*	*38*
Total exposure before deduction of allowances and provisions	**153,473**	**127,309**	**22,693**	**3,257**	**214**	**17**	156,211	17
Less: allowances and provisions	***(530)***						*(603)*	
Net banking products exposure	**152,943**						155,608	

1 The ratings of the major credit rating agencies, and their mapping to our internal rating scale, are shown in the "Internal UBS rating scale and mapping of external ratings" table in the "Credit risk models" section of this report. 2 Following improvements in data sourcing, the rating split and weighted average LGD for 31 December 2014 have been restated to ensure comparability with the figures as of 31 December 2015. ▲

EDTF |

Personal & Corporate Banking: unsecured loans by industry sector

CHF million	31.12.15		31.12.14	
	CHF million	**%**	CHF million	%
Construction	**113**	**1.4**	113	1.2
Financial institutions	**1,203**	**14.6**	916	9.6
Hotels and restaurants	**69**	**0.8**	54	0.6
Manufacturing	**1,204**	**14.6**	1,627	17.1
Private households	**1,313**	**15.9**	1,306	13.7
Public authorities	**1,461**	**17.7**	1,906	20.0
Real estate and rentals	**120**	**1.5**	572	6.0
Retail and wholesale	**1,181**	**14.3**	1,732	18.2
Services	**1,405**	**17.0**	1,184	12.4
Other	**183**	**2.2**	125	1.3
Net exposure	**8,252**	**100**	9,536	100.0

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EDTF |

Swiss mortgages: distribution of net exposure at default (EAD) across exposure segments and loan-to-value (LTV) buckets

CHF billion, except where indicated		31.12.15								31.12.14
		LTV buckets								
Exposure segment		**≤30%**	**31–50%**	**51–60%**	**61–70%**	**71–80%**	**81–100%**	**>100%**	**Total**	Total
	Net EAD	**69.9**	**30.6**	**8.1**	**3.8**	**1.2**	**0.2**	**0.0**	**113.8**	115.2
Residential mortgages	as a % of row total	**61**	**27**	**7**	**3**	**1**	**0**	**0**	**100**	
	Net EAD	**11.5**	**5.0**	**1.4**	**0.7**	**0.2**	**0.1**	**0.0**	**19.0**	19.9
Income-producing real estate (IPRE)	as a % of row total	**61**	**26**	**8**	**4**	**1**	**0**	**0**	**100**	
	Net EAD	**4.7**	**2.0**	**0.6**	**0.3**	**0.1**	**0.1**	**0.1**	**7.9**	8.2
Corporates	as a % of row total	**60**	**26**	**7**	**3**	**2**	**1**	**1**	**100**	
	Net EAD	**0.7**	**0.2**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**1.0**	1.1
Other segments	as a % of row total	**68**	**20**	**5**	**3**	**2**	**1**	**0**	**100**	
	Net EAD	**86.8**	**37.9**	**10.1**	**4.8**	**1.6**	**0.3**	**0.1**	**141.6**	144.4
Mortgage-covered exposure	as a % of total	**61**	**27**	**7**	**3**	**1**	**0**	**0**	**100**	
	Net EAD	86.7	39.3	10.9	5.3	1.7	0.4	0.1	144.4	
Mortgage-covered exposure 31.12.14	as a % of total	60	27	8	4	1	0	0	100	

▲

Asset Management

Gross banking products exposure within Asset Management was less than CHF 1 billion as of 31 December 2015.

Investment Bank

EDTF | The Investment Bank's lending activities are largely associated with corporates and non-bank financial institutions. The business is broadly diversified across industry sectors, but concentrated in North America.

The gross banking products exposure of the Investment Bank increased to CHF 69 billion as of 31 December 2015 compared with CHF 60 billion as of 31 December 2014. The increase in exposure was due to an increase in temporary loan underwriting activity toward the end of the year, which was predominantly investment grade and driven by strategic mergers and acquisitions. While distribution of these investment grade exposures has been sound, conditions in the sub-investment grade markets have remained challenging, such that some lower-rated deals have not been distributed as planned, leading to a buildup in the level of our exposures intended for syndication. These exposures are classified as held for trading, with fair values reflecting the market conditions at the end of the year.

The Investment Bank actively manages the credit risk of this portfolio and, as of 31 December 2015, held CHF 7.6 billion of single-name credit default swaps (CDSs) hedges against its exposures to corporates and other non-banks, a decrease of CHF 1.3 billion compared with 2014. In addition, the Investment Bank held CHF 276 million of loss protection from the subordinated tranches of structured credit protection, which is not reflected in the "Investment Bank: banking products" table.

Net banking products exposure, excluding balances with central banks and the vast majority of due from banks, and after allowances, provisions and hedges, increased to CHF 53.0 billion as of 31 December 2015 from CHF 42.9 billion at the end of 2014, driven by the aforementioned higher level of loan underwriting at the end of 2015. At the end of the year, and based on our internal ratings, 63% of the Investment Bank's net banking products exposure was classified as investment grade compared with 59% at the end of the prior year. The majority of the Investment Bank's net banking products exposure had estimated LGD of between 0% and 50%.

Due to the current low price environment in commodities, exposures to certain counterparties in the energy sector currently carry more risk than in prior periods. As of 31 December 2015 our total net banking products exposure to the oil and gas sector, mainly in North America, was CHF 6.1 billion, including both funded and unfunded exposures, of which CHF 5.9 billion was recorded within the Investment Bank and the remaining exposure within Corporate Center – Non-core and Legacy Portfolio. Of this, CHF 2.5 billion was related to the infrastructure-like midstream sub-sector, which we expect to be less affected by lower energy prices, because revenues for transportation are largely fee or volume based. Less than CHF 0.5 billion of this midstream exposure is to counterparties we rate as sub-investment grade. Exposure to the exploration & production (E&P) sub-sector amounted to CHF 2.0 billion, almost evenly split between oil and gas. This is one of the sub-sectors we consider to be most directly exposed to prolonged low commodity prices. The largest component of this E&P-related exposure is reserve-based lending with counterparties we rate as sub-investment grade, secured by proven reserves, typically revalued on a semi-annual basis. Refining-related exposure totaled CHF 0.8 billion, predominantly in asset-based lending. Our exposure to the integrated sub-sector was CHF 0.5 billion, entirely with counterparties we rate as high investment grade. The exposure to the services & supply sub-sector was CHF 0.4 billion. We also consider this one of the sub-sectors most directly exposed to prolonged low commodity prices, as revenues are driven by the level of exploration and production activity and as security is typically equipment that has low recovery values in distress.

Using an assumed average oil price of USD 25 per barrel through the end of 2017, we estimate that we could incur an additional credit loss expense of approximately CHF 100 million. In arriving at this estimate we have considered, among other things, the estimated effect of the decline in the value of oil and gas reserves pledged in support of reserve-based loans in the exploration and production segment, assumed higher default rates and lower recoveries for the oilfield services segment and made other significant assumptions. We have not taken into account any broader macroeconomic effects of a prolonged period of depressed energy prices, nor have we considered indirect effects. All of these factors may result in actual losses being materially higher or lower than this estimate, and there can be no certainty over the timing of recognition of actual losses.

Specific allowances for these energy-related exposures totaled CHF 40 million as of 31 December 2015. A sustained period of depressed energy prices could result in an increased credit loss expense for this sub-segment of our portfolio in future periods. ▲

➔ Refer to "Credit risk models" in this section for more information on LGD, rating grades and rating agency mappings

EDTF |

Investment Bank: banking products[1]

CHF million	**31.12.15**	31.12.14
Total exposure, before deduction of allowances, provisions and hedges	**60,628**	51,744
Less: allowances, provisions	**(59)**	(19)
Less: credit protection bought (credit default swaps, notional)[2]	**(7,555)**	(8,835)
Net exposure after allowances, provisions and hedges	**53,014**	42,890

1 Internal risk view, excludes balances with central banks, internal risk adjustments and the vast majority of due from banks exposures. 2 The effects of portfolio hedges, such as index credit default swaps (CDSs), and of loss protection from the subordinated tranches of structured credit protection are not reflected in this table.

EDTF |

Investment Bank: distribution of net banking products exposure, across internal UBS ratings and loss given default (LGD) buckets

CHF million, except where indicated	**31.12.15**						31.12.14	
		LGD buckets				**Weighted average LGD (%)**		Weighted average LGD (%)
Internal UBS rating[1]	**Exposure**	**0–25%**	**26–50%**	**51–75%**	**76–100%**		Exposure	
Investment grade	**33,465**	**7,136**	**14,632**	**8,288**	**3,409**	**49**	25,177	44
Sub-investment grade	**19,548**	**12,814**	**5,234**	**506**	**994**	**22**	17,713	19
of which: 6–9	***13,365***	***9,698***	***2,753***	***486***	***427***	***20***	*11,951*	*19*
of which: 10–12	***5,949***	***2,941***	***2,428***	***20***	***561***	***27***	*5,647*	*21*
of which: 13 and defaulted	***234***	***175***	***53***	***0***	***6***	***14***	*115*	*23*
Net banking products exposure, after application of credit hedges	**53,014**	**19,950**	**19,866**	**8,794**	**4,404**	**39**	42,890	34

1 The ratings of the major credit rating agencies, and their mapping to our internal rating scale, are shown in the "Internal UBS rating scale and mapping of external ratings" table in the "Credit risk models" section of this report.

EDTF |

Investment Bank: net banking products exposure by geographical region

	31.12.15		31.12.14	
	CHF million	**%**	CHF million	%
Asia Pacific	**2,168**	**4.1**	1,864	4.3
Latin America	**132**	**0.2**	210	0.5
Middle East and Africa	**27**	**0.1**	84	0.2
North America	**44,419**	**83.8**	34,495	80.4
Switzerland	**163**	**0.3**	214	0.5
Rest of Europe	**6,103**	**11.5**	6,024	14.0
Net exposure	**53,014**	**100.0**	42,890	100.0

▲

EDTF |

Investment Bank: net banking products exposure by industry sector

	31.12.15		31.12.14	
	CHF million	**%**	CHF million	%
Banks	**2,468**	**4.7**	2,272	5.3
Chemicals	**636**	**1.2**	1,295	3.0
Electricity, gas, water supply	**3,173**	**6.0**	2,465	5.7
Financial institutions, excluding banks	**19,990**	**37.7**	14,482	33.8
Manufacturing[1]	**6,794**	**12.8**	4,858[2]	11.3
Mining[1]	**3,331**	**6.3**	6,160	14.4
Public authorities	**2,451**	**4.6**	1,302[2]	3.0
Real estate and construction	**4,487**	**8.5**	4,678	10.9
Retail and wholesale	**681**	**1.3**	855	2.0
Technology and communications	**3,847**	**7.3**	1,838	4.3
Transport and storage[1]	**4,005**	**7.6**	1,560[2]	3.6
Other	**1,150**	**2.2**	1,126[2]	2.6
Net exposure[1]	**53,014**	**100.0**	42,890	100.0
of which: oil and gas[1]	***5,930***	***11.2***	*6,564*	*15.3*

1 As of 31 December 2015, the CHF 5.9 billion Investment Bank net banking product exposure to the oil and gas sector comprised CHF 2.6 billion related to mining, CHF 2.5 billion related to transport and storage and CHF 0.8 billion related to manufacturing. As of 31 December 2014, the CHF 6.6 billion Investment Bank net banking products exposure to the oil and gas sector comprised CHF 5.5 billion related to mining, CHF 0.4 billion related to transport and storage and CHF 0.7 billion related to manufacturing. 2 Prior year numbers were restated to account for enhanced sector granularity.

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Corporate Center – Group Asset and Liability Management

EDTF | Gross banking products exposure within Corporate Center – Group Asset and Liability Management (Group ALM), which arises primarily in connection with treasury activities, decreased by CHF 13 billion to CHF 97 billion. This was driven by a decrease in balances with central banks of CHF 14 billion, largely due to the rebalancing of our high-quality, liquid assets managed centrally by Group ALM. ▲

➔ **Refer to the "Balance sheet" section of this report for more information on the development of balances with central banks**

Corporate Center – Non-core and Legacy Portfolio

➔ **Refer to "Corporate Center – Non-core and Legacy Portfolio" in the "Financial and operating performance" section of this report for more information**

Traded products

EDTF | Traded products include OTC derivatives exposures, as well as SFT and ETD exposures. Credit risk arising from traded products, after the effects of master netting agreements but excluding credit valuation adjustments and hedges, decreased by CHF 4 billion to CHF 45 billion as of 31 December 2015. OTC derivatives accounted for CHF 22 billion, exposures from SFTs were CHF 14 billion, and ETD exposures amounted to CHF 8 billion. OTC derivatives exposures are generally measured as net positive replacement values after the application of legally enforceable netting agreements and the deduction of cash and marketable securities held as collateral. SFT exposures are reported taking into account collateral received, and ETD exposures take into account collateral margin calls.

The majority of the traded products exposures, totaling CHF 35 billion, were within the Investment Bank, Non-Core and Legacy Portfolio and Group ALM. Of this, CHF 0.3 billion was related to counterparties in the energy sector, predominantly rated investment grade. As counterparty risk for traded products is managed at counterparty level, no further split between exposures in the Investment Bank and those in Non-core and Legacy Portfolio and Group ALM is provided. The traded products exposure includes OTC derivative exposures of CHF 16 billion in the Investment Bank and Non-core and Legacy Portfolio, a decrease of CHF 5 billion from the prior year, primarily due to our ongoing reduction activity in Non-core and Legacy Portfolio and client-driven reductions in the Investment Bank. The SFT exposures, which arise mainly within the Investment Bank and Group ALM, amounted to CHF 14 billion and the ETD exposures were CHF 6 billion. The tables on the following pages provide more information on the OTC derivatives and SFT exposures of the Investment Bank, Non-Core and Legacy Portfolio and Group ALM. ▲

EDTF |

Investment Bank, Non-core and Legacy Portfolio and Group ALM: traded products exposure

CHF million	OTC derivatives[1]	SFT	ETD	Total	Total
		31.12.15			31.12.14
Total exposure, before deduction of credit valuation adjustments and hedges	**15,502**	**13,657**	**6,099**	**35,258**	39,875
Less: credit valuation adjustments and allowances	**(470)**			**(470)**	(700)
Less: credit protection bought (credit default swaps, notional)	**(1,076)**			**(1,076)**	(998)
Net exposure after credit valuation adjustments, allowances and hedges	**13,955**	**13,657**	**6,099**	**33,712**	38,177

1 Net replacement value includes the effect of netting agreements (including cash collateral) in accordance with Swiss federal banking law. ▲

EDTF |

Investment Bank, Non-Core and Legacy Portfolio, and Group ALM: distribution of net OTC derivatives and SFT exposure across internal UBS ratings and loss given default (LGD) buckets

CHF million, except where indicated	31.12.15						31.12.14	
		LGD buckets				Weighted average LGD (%)		Weighted average LGD (%)
Internal UBS rating[1]	Exposure	0–25%	26–50%	51–75%	76–100%		Exposure	
Net OTC derivatives exposure								
Investment grade	**13,176**	**4,380**	**7,865**	**558**	**373**	**30**	18,040	29
Sub-investment grade	**779**	**63**	**655**	**9**	**53**	**36**	913	38
of which: 6–9	***343***	***31***	***252***	***8***	***51***	***48***	*445*	*39*
of which: 10–12	***92***	***31***	***60***	***0***	***0***	***30***	*114*	*31*
of which:13 and defaulted	***344***	***0***	***342***	***0***	***2***	***26***	*355*	*39*
Total net OTC exposure, after credit valuation adjustments and hedges	**13,955**	**4,443**	**8,520**	**566**	**426**	**31**	18,953	30
Net SFT exposure								
Investment grade	**13,531**	**6,520**	**6,234**	**269**	**508**	**27**	11,674	33
Sub-investment grade	**126**	**3**	**9**	**12**	**102**	**89**	399	81
Total net SFT exposure	**13,657**	**6,524**	**6,243**	**280**	**610**	**28**	12,073	34

1 The ratings of the major credit rating agencies, and their mapping to our internal rating masterscale, are shown in the "Internal UBS rating scale and mapping of external ratings" table in the "Credit risk models" section of this report.

EDTF |

Investment Bank, Non-Core and Legacy Portfolio, and Group ALM: net OTC derivatives and SFT exposure by geographical region

	Net OTC derivatives				Net SFT			
	31.12.15		31.12.14		31.12.15		31.12.14	
	CHF million	%	CHF million	%	CHF million	%	CHF million	%
Asia Pacific	**1,194**	**8.6**	2,956	15.6	**1,661**	**12.2**	2,123	17.6
Latin America	**51**	**0.4**	171	0.9	**117**	**0.9**	122	1.0
Middle East and Africa	**132**	**0.9**	157	0.8	**740**	**5.4**	900	7.5
North America	**4,878**	**35.0**	6,704	35.4	**2,929**	**21.5**	2,927	24.2
Switzerland	**512**	**3.7**	811	4.3	**1,275**	**9.3**	1,252	10.4
Rest of Europe	**7,189**	**51.5**	8,153	43.0	**6,935**	**50.8**	4,750	39.3
Net exposure	**13,955**	**100.0**	18,953	100.0	**13,657**	**100.0**	12,073	100.0

EDTF |

Investment Bank, Non-Core and Legacy Portfolio, and Group ALM: net OTC derivatives and SFT exposure by industry

	Net OTC derivatives				Net SFT			
	31.12.15		31.12.14		31.12.15		31.12.14	
	CHF million	%	CHF million	%	CHF million	%	CHF million	%
Banks	**4,621**	**33.1**	6,152	32.5	**4,995**	**36.6**	4,025	33.3
Chemicals	**28**	**0.2**	29	0.2				
Electricity, gas, water supply	**306**	**2.2**	276	1.5				
Financial institutions, excluding banks	**5,336**	**38.2**	7,687	40.6	**8,151**	**59.7**	7,176	59.4
Manufacturing	**564**	**4.0**	740	3.9				
Mining	**178**	**1.3**	128	0.7				
Public authorities	**2,085**	**14.9**	2,775	14.6	**509**	**3.7**	871	7.2
Retail and wholesale	**15**	**0.1**	72	0.4				
Transport, storage and communication	**285**	**2.0**	437	2.3	**2**	**0.0**	0	0.0
Other	**537**	**3.8**	657	3.5	**1**	**0.0**	1	0.0
Net exposure	**13,955**	**100.0**	18,953	100.0	**13,657**	**100.0**	12,073	100.0

Credit risk mitigation

Audited | EDTF | Pillar 3 | We actively manage the credit risk in our portfolios by taking collateral against exposures and by utilizing credit hedging. ▲▲▲

Lending secured by real estate

Audited | EDTF | Pillar 3 | We use a scoring model as part of a standardized front-to-back process to support credit decisions for the origination or modification of Swiss mortgage loans. The two key factors within this model are an affordability calculation relative to gross income and the loan-to-value (LTV) ratio. ▲

The calculation of affordability takes into account interest payments, minimum amortization requirements, potential property maintenance costs and, in the case of properties expected to be rented out, the level of rental income. Interest payments are estimated using a predefined framework, which takes into account the potential for significant increases in interest rates during the lifetime of the loan.

For properties occupied by the borrower, the maximum LTV allowed within the standard approval process is 80%. This is reduced to 60% in the case of vacation properties and luxury real estate. For properties rented out by the borrower, the maximum LTV allowed within the standard approval process ranges from 60% to 80%, depending on the type of property, the age of the property and the amount of any renovation work required.

Audited | The value assigned by UBS to each property is based on the lowest value determined from internally calculated valuations, the purchase price and, in some cases, an additional external valuation. ▲

We use two separate models provided by a market-leading external vendor to derive property valuations for owner-occupied residential properties (ORP) and income-producing real estate. For ORP, we estimate the current value of properties by using a regression model (hedonic model) to compare detailed characteristics for each property against a database of property transactions. In addition to the model-derived values, valuations for ORP are updated quarterly throughout the lifetime of the loan by using region-specific real estate price indices. The price indices are sourced from an external vendor and are subject to internal validation and benchmarking against two other external vendors. On an annual basis, we use these valuations to compute indexed LTV for all ORP and consider these together with other risk measures (e.g., rating migration and behavioral information) to identify higher-risk loans, which are then reviewed individually by client advisors and credit officers, with actions taken where they are considered necessary.

For income-producing real estate, a capitalization model is used to determine the property valuation by discounting estimated sustainable future income using a capitalization rate based on various attributes. These attributes consider regional as well as specific property characteristics such as market and location data (e.g., vacancy rates), benchmarks (e.g., for running costs) and certain other standardized input parameters (e.g., property condition). Rental income from properties is reviewed at a minimum once every three years, but indications of significant changes in the amount of rental income or in the vacancy rate can trigger an interim reappraisal.

To take market developments into account for these models, the external vendor regularly updates the parameters and/or refines the architecture for each model. Model changes and parameter updates are subject to the same validation procedures as for our internally developed models.

Audited | We similarly apply underwriting guidelines for our Wealth Management Americas mortgage loan portfolio to ensure affordability of the loans and sufficiency of collateral.▲

These include: maximum loan amounts, maturities and LTV limits by type of property, debt-to-income limits, required reserves as a percentage of proposed loan amounts and appropriate credit score guidelines. The maximum LTV allowed within the standard approval process ranges from 45% to 80% depending on property type and overall loan size. ▲▲

➔ **Refer to "Personal & Corporate Banking" in "Credit risk profile of the Group – Internal risk view" in this section for more information on LTV in our Swiss mortgage portfolio**

➔ **Refer to "Wealth Management Americas" in "Credit risk profile of the Group – Internal risk view" in this section for more information on LTV in our Wealth Management Americas mortgage portfolio**

Exposures secured by other forms of collateral

Audited | EDTF | Pillar 3 | Lombard loans and other lending such as securities financing transactions are secured against the pledge of eligible marketable securities, guarantees and other forms of collateral. Eligible financial securities primarily include transferable securities (such as bonds and equities), which are liquid and actively traded, and other transferable securities such as approved structured products for which regular prices are available and for which the issuer of the security provides a market.

We apply discounts (haircuts) to reflect the collateral's risk and to derive the lending value. ▲

Haircuts for eligible marketable securities are calculated to cover the possible change in the market value over a given close-out period and confidence level. For less liquid instruments such as structured products and certain bonds, and for products with long redemption periods, the close-out period might be much longer than that for highly liquid instruments, resulting in a higher haircut. For cash, life insurance policies and guarantees/letters of credit, haircuts are determined on a product/client-specific basis. ▲▲

Audited | EDTF | Pillar 3 | We also consider concentration risks across collateral posted on a divisional level, and additionally perform targeted Group-wide reviews of concentrations. A concentration of collateral in single securities, issuers or issuer groups, industry sectors, countries, regions or currencies may result in higher risk and reduced liquidity. In such cases, the lending value of the collateral, margin call and close-out levels are adjusted accordingly. ▲

Exposures and collateral values are monitored on a daily basis to ensure that the credit exposure continues to be covered by sufficient collateral. A shortfall occurs when the lending value drops below the exposure. If a shortfall exceeds a defined trigger level, a margin call is initiated, requiring the client to provide additional collateral, reduce the exposure or take other action to bring the exposure in line with the lending value of the collateral. If the shortfall widens, or is not corrected within the required period, a close-out is initiated, through which collateral is liquidated, open derivative positions are closed and guarantees or letters of credit are called.

We also conduct stress testing of collateralized exposures to simulate market events which increase the risk of collateral shortfalls and unsecured exposures by significantly reducing the value of the collateral, increasing the exposure of traded products, or both. ▲▲

➔ **Refer to "Stress loss" in "Credit risk models" in this section for more information on our stress testing**

Audited | EDTF | Pillar 3 | Trading in OTC derivatives is conducted through central counterparties (CCPs) where practicable. Where CCPs are not used, we have clearly defined processes for entering into netting and collateral arrangements, including the requirement to have a legal opinion on the enforceability of contracts in relevant jurisdictions in the case of insolvency. Trading is generally conducted under bilateral International Swaps and Derivatives Association (ISDA) or ISDA-equivalent master netting agreements, which allow for the close-out and netting of all transactions in the event of default. For most major market participant counterparties, we may in addition use two-way collateral agreements under which either party can be required to provide collateral in the form of cash or marketable securities, typically limited to well-rated government debt, when the exposure exceeds specified levels. ▲▲▲

➔ **Refer to "Note 14 Derivative instruments and hedge accounting" in the "Consolidated financial statements" section of this report for more information on our OTC derivatives settled through central counterparties**

➔ **Refer to "Note 26 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of this report for more information on the effect of netting and collateral arrangements on our derivative exposures**

Credit hedging

Audited | EDTF | Pillar 3 | We utilize single-name credit default swaps (CDSs), credit index CDSs, bespoke protection, and other instruments to actively manage credit risk in the Investment Bank and Non-core and Legacy Portfolio. This is aimed at reducing concentrations of risk from specific counterparties, sectors or portfolios.

We maintain strict guidelines for taking credit hedges into account for credit risk mitigation purposes. For example, when monitoring exposures against counterparty limits, we do not usually recognize credit risk mitigants such as proxy hedges (credit protection on a correlated but different name) or credit index CDSs. Buying credit protection also creates credit exposure against the protection provider. We monitor our exposures to credit protection providers and the effectiveness of credit hedges as part of our overall credit exposures to the relevant counterparties. For credit protection purchased to hedge the lending portfolio, this includes monitoring mismatches between the maturity of the credit protection purchased and the maturity of the associated loan. Such mismatches result in basis risk and may reduce the effectiveness of the credit protection. Mismatches are routinely reported to credit officers and mitigating actions are taken when considered necessary. ▲▲▲

➔ **Refer to "Note 14 Derivative instruments and hedge accounting" in the "Consolidated financial statements" section of this report for more information**

Mitigation of settlement risk

EDTF | Pillar 3 | To mitigate settlement risk, we reduce our actual settlement volumes through the use of multilateral and bilateral agreements with counterparties, including payment netting.

Our most significant source of settlement risk is foreign exchange transactions. We are a member of Continuous Linked Settlement, a foreign exchange clearing house which allows transactions to be settled on a delivery versus payment basis, thereby significantly reducing foreign exchange-related settlement risk relative to the volume of business. However, the mitigation of settlement risk through Continuous Linked Settlement membership and other means does not fully eliminate our credit risk in foreign exchange transactions (resulting from changes in exchange rates prior to settlement), which is managed as part of our overall credit risk management of OTC derivatives. ▲▲

Credit risk models

Audited | EDTF | Pillar 3 | We have developed tools and models in order to estimate future credit losses that may be implicit in our current portfolio.

Exposures to individual counterparties are measured based on three generally accepted parameters: probability of default (PD), loss given default (LGD) and exposure at default (EAD). For a given credit facility, the product of these three parameters results in the expected loss. These parameters are the basis for the majority of our internal measures of credit risk, and are key inputs for the regulatory capital calculation under the advanced internal ratings-based approach of the Basel III framework governing international convergence of capital. We also use models to derive the portfolio credit risk measures of expected loss, statistical loss and stress loss. ▲

The "Key features of our main credit risk models" table summarizes the key features of the models that we use to derive PD, LGD and EAD for our main portfolios and is followed by more detailed explanations of these parameters. ▲▲

➔ **Refer to the "UBS Group AG consolidated supplemental disclosures required under Basel III Pillar 3 regulations" section of this report for more information on the regulatory capital calculation under the advanced internal ratings-based approach**

EDTF | Pillar 3 |

Key features of our main credit risk models

	Portfolio in scope	Model approach	Main drivers	Number of years loss data
Probability of default	Swiss owner-occupied mortgages	Score card	Behavioral data, affordability relative to income, property type, loan-to-value	21
	Income-producing real estate mortgages	Transaction rating	Loan-to-value, debt-service-coverage	21
	Lombard lending	Merton type	Loan-to-value, portfolio volatility	10–15
	Personal & Corporate Banking – Corporates	Score card	Financial data including balance sheet ratios and profit and loss, and behavioral data	21
	Investment Bank – Banks	Score card	Financial data including balance sheet ratios and profit and loss	5–10
	Investment Bank – Corporates	Score card / market data	Financial data including balance sheet ratios and profit and loss, and market data	5–10
Loss given default	Swiss owner-occupied mortgages	Actuarial model	Historical observed loss rates, loan-to-value, property type	21
	Income-producing real estate mortgages	Actuarial model	Historical observed loss rates	21
	Lombard lending	Actuarial model	Historical observed loss rates	10–15
	Personal & Corporate Banking – Corporates	Actuarial model	Historical observed loss rates	17
	Investment Bank – all counterparties	Actuarial model	Counterparty- and facility-specific, including industry segment, collateral, seniority, legal environment and bankruptcy procedures	5–10
Exposure at default	Banking products	Statistical model	Exposure type (committed credit lines, revocable credit lines, contingent products)	>10
	Traded products	Statistical model	Product-specific market drivers, e.g., interest rates	n / a

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Audited | EDTF | Pillar 3 |

Internal UBS rating scale and mapping of external ratings

Internal UBS rating	*1-year PD range in %*	*Description*	*Moody's Investors Service mapping*	*Standard & Poor's mapping*	*Fitch mapping*
0 and 1	*0.00–0.02*	*Investment grade*	Aaa	AAA	AAA
2	*0.02–0.05*		Aa1 to Aa3	AA+ to AA–	AA+ to AA–
3	*0.05–0.12*		A1 to A3	A+ to A–	A+ to AA–
4	*0.12–0.25*		Baa1 to Baa2	BBB+ to BBB	BBB+ to BBB
5	*0.25–0.50*		Baa3	BBB–	BBB–
6	*0.50–0.80*	*Sub-investment grade*	Ba1	BB+	BB+
7	*0.80–1.30*		Ba2	BB	BB
8	*1.30–2.10*		Ba3	BB–	BB–
9	*2.10–3.50*		B1	B+	B+
10	*3.50–6.00*		B2	B	B
11	*6.00–10.00*		B3	B–	B–
12	*10.00–17.00*		Caa	CCC	CCC
13	*>17*		Ca to C	CC to C	CC to C
Counterparty is in default (CDF)	*Default*	*Defaulted*		D	D

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Probability of default

EDTF | Pillar 3 | The probability of default (PD) is an estimate of the likelihood of a counterparty defaulting on its contractual obligations over the next 12 months. PD ratings are used for credit risk measurement and are an important input for determining credit risk approval authorities.

PD is assessed using rating tools tailored to the various categories of counterparties. Statistically developed score cards, based on key attributes of the obligor, are used to determine PD for many of our corporate clients and for loans secured by real estate. Where available, market data may also be used to derive the PD for large corporate counterparties. For Lombard loans, Merton-type model simulations taking into account potential changes in the value of securities collateral are used in our rating approach. These categories are also calibrated to our internal credit rating scale (masterscale), which is designed to ensure a consistent assessment of default probabilities across counterparties. Our masterscale expresses one-year default probabilities that we determine through our various rating tools by means of distinct classes, whereby each class incorporates a range of default probabilities. Counterparties migrate between rating classes as our assessment of their PD changes.

The ratings of the major credit rating agencies, and their mapping to our internal rating masterscale and internal PD bands, are shown in the "Internal UBS rating scale and mapping of external ratings" table on the previous page. The mapping is based on the long-term average of one-year default rates available from the rating agencies. For each external rating category, the average default rate is compared with our internal PD bands to derive a mapping to our internal rating scale. Our internal rating of a counterparty may, therefore, diverge from one or more of the correlated external ratings shown in the table. Observed defaults by rating agencies may vary through economic cycles, and we do not necessarily expect the actual number of defaults in our equivalent rating band to equal the rating agencies' average in any given period. We periodically assess the long-term average default rates of credit rating agencies' grades, and we adjust their mapping to our masterscale as necessary to reflect any material changes. ▲▲

Loss given default

EDTF | Pillar 3 | Loss given default (LGD) is the magnitude of the likely loss if there is a default. LGD estimates include loss of principal, interest and other amounts (such as work-out costs, including the cost of carrying an impaired position during the work-out process) less recovered amounts. We determine LGD based on the likely recovery rate of claims against defaulted counterparties, which depends on the type of counterparty and any credit mitigation by way of collateral or guarantees. Our estimates are supported by our internal loss data and external information where available. Where we hold collateral, such as marketable securities or a mortgage on a property, loan-to-value ratios are a key parameter in determining LGD. ▲▲

Exposure at default

EDTF | Pillar 3 | Exposure at default (EAD) represents the amount we expect to be owed by a counterparty at the time of a possible default. We derive EAD from our current exposure to the counterparty and the possible future development of that exposure.

The EAD of a loan is the drawn or face value of the loan. For loan commitments and guarantees, the EAD includes the amount drawn as well as potential future amounts that may be drawn, which are estimated based on historical observations.

For traded products, we derive the EAD by modeling the range of possible exposure outcomes at various points in time using scenario and statistical techniques. We assess the net amount that may be owed to us or that we may owe to others, taking into account the effect of market moves over the potential time it would take to close out our positions. For exchange-traded derivatives, our calculation of EAD takes into account collateral margin calls. When measuring individual counterparty exposure against credit limits, we consider the maximum likely exposure measured to a high level of confidence. However, when aggregating exposures to different counterparties for portfolio risk measurement purposes, we use the expected exposure to each counterparty at a given time period (usually one year) generated by the same model.

We assess our exposures where there is a material correlation between the factors driving the credit quality of the counterparty and those driving the potential future value of our traded product exposure (wrong-way risk), and we have established specific controls to mitigate these risks. ▲▲

Expected loss

EDTF | Pillar 3 | Credit losses are an inherent cost of doing business, but the occurrence and amount of credit losses can be erratic. In order to quantify future credit losses that may be implicit in our current portfolio, we use the concept of expected loss.

Expected loss is a statistical measure used to estimate the average annual costs we expect to experience from positions that become impaired. The expected loss for a given credit facility is a product of the three components described above: PD, EAD and LGD. We aggregate the expected loss for individual counterparties to derive our expected portfolio credit losses.

Expected loss is the basis for quantifying credit risk in all our portfolios. It is also the starting point for the measurement of our portfolio statistical loss and stress loss.

We use a statistical modeling approach to estimate the loss profile of each of our credit portfolios over a one-year period to a specified level of confidence. The mean value of this loss distribution is the expected loss. The loss estimates deviate from the mean value due to statistical uncertainty on the defaulting counterparties and to systematic default relationships among counterparties within and between segments. The statistical measure is sensitive to concentration risks on individual counterparties and groups of counterparties. The outcome provides an indication of the level of risk in our portfolio and the way it may develop over time. ▲▲

Stress loss

EDTF | Pillar 3 | We complement our statistical modeling approach with scenario-based stress loss measures. Stress tests are run on a regular basis to monitor the potential impact of extreme, but nevertheless plausible events on our portfolios, under which key credit risk parameters are assumed to deteriorate substantially. Where we consider it appropriate, we apply limits on this basis.

Stress scenarios and methodologies are tailored to the nature of the portfolios, ranging from regionally focused to global systemic events, and varying in time horizon. For example, for our loan underwriting portfolio, we apply a global market event under which, simultaneously, the market for loan syndication freezes, market conditions significantly worsen, and credit quality deteriorates. Similarly, for Lombard lending, we apply a range of scenarios representing instantaneous market shocks to all collateral and exposure positions, taking into consideration their liquidity and potential concentrations. The portfolio-specific stress test for our mortgage lending business in Switzerland reflects a multi-year event, and the overarching stress test for global wholesale and counterparty credit risk to corporates uses a one-year global stress event and takes into account exposure concentrations to single counterparties. ▲▲

➔ **Refer to "Stress testing" in this section for more information on our stress testing framework**

Credit risk model confirmation

EDTF | Pillar 3 | Our approach to model confirmation involves both quantitative methods, including monitoring compositional changes in the portfolios and the results of backtesting, and qualitative assessments, including feedback from users on the model output as a practical indicator of the performance and reliability of the model.

Material changes in a portfolio composition may invalidate the conceptual soundness of the model. We therefore perform regular analysis of the evolution of portfolios to identify such changes in the structure and credit quality of portfolios. This includes analysis of changes in key attributes, changes in portfolio concentration measures, as well as changes in RWA. ▲▲

➔ **Refer to "Risk measurement" in this section for more information on our approach to model confirmation procedures**

EDTF | Pillar 3 |

Main credit models backtesting by regulatory exposure segment

	Length of time series used for the calibration (in years)	Actual rates in %			Estimated average rates at the start of the period in %
		Average of last 5 years[1]	Min. of last 5 years[2]	Max. of last 5 years[2]	
Probability of default					
Sovereigns	>10	0.00	0.00	0.00	0.22
Banks[3]	>10	0.08	0.06	0.13	0.61
Corporates[4]	>10	0.22	0.19	0.28	0.55
Retail					
Residential mortgages	>20	0.15	0.13	0.19	0.52
Lombard lending	>10	0.01	0.00	0.02	0.13
Other retail	>10	0.29	0.16	0.45	1.01
Loss given default					
Sovereigns	>10				41.11
Banks[3,5]	>10	12.71			37.71
Corporates	>10	24.60	14.33	30.28	20.80
Retail					
Residential mortgages	>20	1.60	0.24	2.23	6.61
Lombard lending	>10	22.61	6.23	6.23	20.00
Other retail	>10	18.77	0.11	30.69	43.03
Credit conversion factor					
Corporates	>10	21.53	9.75	44.32	33.45

1 Average of all observations over the last five years. 2 Minimum / maximum annual average of observations in any single year from the last five years. Yearly averages are only calculated where five or more observations occurred during that year. 3 Includes central counterparties. 4 Reported averages are low due to the effect of managed funds, which have relatively low default rates. 5 For Banks, no minimum / maximum LGDs are reported, since there were less than 5 observations in each year between 2011 and 2015. ▲▲

Backtesting

EDTF | Pillar 3 | We monitor the performance of our models by backtesting and benchmarking them, whereby model outcomes are compared with actual results, based on our internal experience as well as externally observed results. To assess the predictive power of our credit exposure models for traded products such as OTC derivatives and ETD products, we statistically compare the predicted future exposure distributions at different forecast horizons with the realized values.

For PD, we use statistical modeling to derive a predicted distribution of the number of defaults. The observed number of defaults is then compared with this distribution, allowing us to derive a statistical level of confidence in the model conservativeness. In addition, we derive a lower and upper bound for the average default rate. If the portfolio average PD lies outside the derived interval, the rating tool is, as a general rule, recalibrated.

For LGD, the backtesting statistically tests whether the mean difference between the observed and predicted LGD is zero. If the test rejects, then there is evidence that our predicted LGD is too low. In such cases, models are recalibrated where these differences are outside expectations.

Credit conversion factors (CCFs), used for the calculation of EAD for undrawn facilities with corporate counterparties, are dependent on several contractual dimensions of the credit facility. We compare the predicted amount drawn with observed historical utilization of such facilities for defaulted counterparties. If any statistically significant deviation is observed, the relevant CCFs are redefined.

The table on the previous page compares the current model calibration for PD, LGD and CCFs with historical observed values over the last five years. ▲▲

Changes to models and model parameters during the period

EDTF | Pillar 3 | As part of our continuous efforts to enhance models to reflect market developments and new available data, certain models were modified over the course of 2015. For the Swiss small and medium corporate clients, a revised rating tool was implemented in 2015, which includes behavioral information as an additional rating driver. Moreover, this rating tool was recalibrated based on an extended data history.

Revised rating methodologies for banks and leveraged corporates were introduced by combining a purely quantitative rating based on the empirical regression between counterparty financial characteristics and default events with a structured qualitative overlay, which allows for Risk Officers expert opinion to be included in the rating assessment. Where required, changes to models and model parameters were approved by the Swiss Financial Market Supervisory Authority (FINMA) prior to implementation. ▲▲

Policies for past due, non-performing and impaired claims

EDTF | Pillar 3 | The diagram "Exposure categorization" illustrates how we categorize banking products and securities financing transactions (SFTs) as performing, non-performing or impaired.

Audited | For products accounted for on a fair value basis, such as OTC derivatives, credit deterioration is recognized through a credit valuation adjustment (CVA), and these products are therefore not subject to the below impairment framework.

We consider a claim at amortized cost (loan, guarantee, loan commitment or SFT) to be past due when a contractual payment has not been received by its contractual due date. This includes account overdrafts where the credit limit is exceeded. Past due claims are not considered impaired where we expect to collect all amounts due under the contractual terms of the claims.

A past due claim is considered non-performing when the payment of interest, principal or fees is overdue by more than 90 days. Claims are also classified as non-performing when insolvency proceedings/enforced liquidation have commenced or obligations have been restructured on preferential terms, such as preferential interest rates, extension of maturity or subordination. Non-performing claims are rated as being in counterparty default on our internal rating scale.

Individual claims are classified as impaired if following an individual impairment assessment, an allowance or provision for credit losses is established. Accordingly, both performing and non-performing loans may be classified as impaired. ▲▲▲

Restructured claims

Audited | EDTF | We do not operate a general policy for restructuring claims in order to avoid counterparty default. Where restructuring does take place, we assess each case individually. Typical features of terms and conditions granted through restructuring to avoid default may include the provision of special interest rates, postponement of interest or principal payments, modification of the schedule of repayments, subordination or amendment of loan maturity.

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

Individual and collective impairment assessments

Audited | EDTF | Pillar 3 | Claims are assessed individually for impairment where there are indicators that an impairment may exist. Otherwise claims are included in a collective impairment assessment. ▲▲▲

Individual impairment assessment

Audited | EDTF | Pillar 3 | Non-performing status is considered an indicator that a loan may be impaired and therefore non-performing claims are assessed individually for impairment. However, an impairment analysis would be carried out irrespective of non-performing status if other objective evidence indicates that a loan may be impaired. Any event that impacts current and future cash flows may be an indication of impairment and trigger an assessment by the risk officer. Such events may be (i) significant collateral shortfalls due to a fall in lending values (securities and real estate), (ii) increase in loan or derivative exposures, (iii) significant financial difficulties of a client and (iv) high probability of the client's bankruptcy, debt moratorium or financial reorganization.

Individual claims are assessed for impairment 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 recoverable amount is determined from all relevant cash flows and, where this is lower than the carrying amount of the claim, the claim is considered impaired.

We have established processes to determine the carrying values of impaired claims in compliance with IFRS requirements. Our credit controls applied to valuation processes and workout agreements are the same for credit products measured at amortized cost and fair value. Our workout strategy and estimation of recoverable amounts are independently approved in accordance with our credit authorities. ▲▲▲

Collective impairment assessment

Audited | EDTF | Pillar 3 | We assess our portfolios of claims carried at amortized cost with similar credit risk characteristics for collective impairment in order to consider if these portfolios contain impaired claims that cannot yet be individually identified. To cover the time lag between the occurrence of an impairment event and its identification based on the policies above, we establish collective loan loss allowances based on the estimated loss for the portfolio over the average period between trigger events and the identification of any individual impairment. These portfolios are not considered impaired loans in the tables shown in this section.

Additionally, for all of our portfolios we assess whether there have been any developments which might result in event-driven impairments that are not immediately observable. These events could be stress situations, such as a natural disaster or a country crisis, or they could result from significant changes in the legal or regulatory environment. To determine whether a collective impairment exists, we regularly use a set of global economic drivers to assess the most vulnerable countries and review the impact of any potential impairment event. ▲▲▲

Recognition of impairment

Audited | EDTF | Pillar 3 | The recognition of impairment in our financial statements depends on the accounting treatment of the claim. For claims carried at amortized cost, impairment is recognized through the creation of an allowance, or in the case of off-balance sheet items such as guarantees and loan commitments through a provision, both charged to the income statement as a credit loss expense. For derivatives, which are carried at fair value, a deterioration of the credit quality is recognized as a credit valuation adjustment in the income statement in *Net trading income*. ▲▲▲

➔ **Refer to "Note 1 Summary of significant accounting policies" and "Note 24a Valuation principles" in the "Consolidated financial statements" section of this report for more information on allowances and provisions for credit losses and credit valuation adjustments**

EDTF | Pillar 3 | **Exposure categorization**

Performing

Fully performing
Claims that are not past due. This includes:
– claims previously classified as non-performing or impaired, but which have returned to performing in accordance with the existing terms of the arrangement and
– claims which have been restructured on a non-preferential basis, e.g., additional collateral has been provided by the borrower

Past due up to and including 90 days
– Claims which have suffered missed payments or overdrafts in excess of the credit limit up to a period of 90 days since the payment date or limit breach

No indication of impairment exists

Claims assessed collectively for impairment

If indication of impairment exists

Claims assessed individually for impairment

Non-performing[1]

Past due more than 90 days
Claims which have suffered missed payments or overdrafts in excess of the credit limit for more than 90 days

Restructured (preferential terms)
Claims for which new terms have been granted on a preferential basis in order to avoid default of the counterparty, e.g., interest concession, extended maturity, subordination

Insolvency proceedings
Insolvency proceedings / enforced liquidation have commenced against the obligor

Indicators of impairment

Claims assessed individually for impairment

Impaired[1]

Performing and non-performing claims for which objective evidence of impairment exists and the carrying amount exceeds the recoverable amount

1 Claims rated as in default. All such claims are excluded from collective impairment assessment.

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Market risk

Audited | EDTF | Pillar 3 | Main sources of market risk

- Market risks arise from both our trading and non-trading business activities.
- Trading market risks arise mainly in connection with securities and derivatives trading for market-making and client facilitation purposes within our Investment Bank, from remaining positions within Non-core and Legacy Portfolio and also from our municipal securities trading business within Wealth Management Americas.
- Non-trading market risk arises predominantly in the form of interest rate and foreign exchange risks in connection with personal banking and lending in our wealth management businesses, our personal and corporate banking businesses in Switzerland and the Investment Bank's lending business, in addition to treasury activities.
- Corporate Center – Asset and Liability Management (Group ALM) assumes market risks in the process of managing interest rate risk, structural foreign exchange risks and the liquidity and funding profile of the Group.
- Equity and debt investments can also give rise to market risks, as can some aspects of our employee benefits such as defined benefit pension schemes. ▲▲▲

Audited | EDTF | Pillar 3 | Overview of measurement, monitoring and management techniques

- Market risk limits are set for the Group, the business divisions and Corporate Center and at granular levels within the various business lines, reflecting the nature and magnitude of the market risks.
- Our primary portfolio measures of market risk are liquidity-adjusted stress (LAS) loss and value-at-risk (VaR). Both are common to all our business divisions and subject to limits that are approved by the Board of Directors (BoD).
- These measures are complemented by concentration and granular limits for general and specific market risk factors. Our trading businesses are subject to multiple market risk limits. These limits take into account the extent of market liquidity and volatility, available operational capacity, valuation uncertainty, and, for our single-name exposures, the credit quality of issuers.
- Issuer risk is controlled by limits applied at business division level based on jump-to-zero measures, which estimate our maximum default exposure (the loss in the case of a default event assuming zero recovery).
- Non-trading foreign exchange risks are managed under market risk limits, with the exception of Group ALM's management of consolidated capital activity.

Our Treasury Risk Control function applies a holistic risk framework which sets the appetite for treasury-related risk-taking activities across the Group. A key element of the framework is an overarching economic value sensitivity limit, set by the BoD. This limit is linked to the level of Basel III common equity tier 1 (CET1) capital and takes into account risks arising from interest rates, foreign exchange and credit spreads. In addition, the sensitivity of net interest income to changes in interest rates is monitored against targets set by the Group Chief Executive Officer in order to analyze the outlook and volatility of net interest income based on market expected interest rates. Limits are also set by the BoD to balance the impact of foreign exchange movements on our CET1 capital and CET1 capital ratio. Non-trading interest rate and foreign exchange risks are included in our Group-wide statistical and stress testing metrics which flow into our risk appetite framework.

Equity and debt investments are subject to a range of risk controls including pre-approval of new investments by business management and Risk Control and regular monitoring and reporting. They are also included in our Group-wide statistical and stress testing metrics which flow into our risk appetite framework. ▲▲▲

➔ **Refer to the "Treasury management" section of this report for more information on Group ALM's management of foreign exchange risks**

➔ **Refer to the "Capital management" section of this report for more information on the sensitivity of our CET1 capital and CET1 capital ratio to currency movements**

Market risk exposures arising from our business activities

EDTF | The table on the next page highlights the most significant sources of our trading market risk exposures and the interest rate risk in our banking book exposures, categorized according to the business activities that primarily generate the risks and the classification of positions on the balance sheet. In practice, and particularly for positions classified in the banking book, we take account of natural risk offsets that occur between balance sheet line items, for example loans and deposits, and manage the residual exposures. The table does not show the foreign exchange risks arising from Group ALM's management of consolidated capital activity discussed in the "Treasury management" section of this report.

Also shown in the table is the specific capital treatment for positions classified within the trading book in accordance with regulatory requirements (regulatory trading book). The amount of capital required to underpin market risk in the regulatory trading book is calculated using a variety of methods approved by FINMA. The components of market risk RWA are value-at-risk (VaR), stressed VaR (SVaR), an add-on for risks which are potentially not fully modeled in VaR, the incremental risk charge (IRC), the comprehensive risk measure (CRM) for the correlation portfolio and the securitization framework for securitization positions in the trading book. More information on each of these components is detailed in the "Market risk exposures arising from our primary business activities" table on the next page. ▲

EDTF | **Market risk exposures arising from our primary business activities**

31.12.15, in CHF billion

Business activity	Balance sheet line item	Trading book / Banking book	Market risk type: Equities	Interest rates	Credit spreads	Foreign exchange	Commodities	Trading book market risk RWA category: Regulatory VaR	Stressed VaR	Risks-not-in-VaR	Incremental risk charge	Comprehensive risk measure	Trading book securitization	Total market risk RWA
Wealth Management[1]								0.0	0.0					**0.0**
Wealth Management Americas								0.2	0.4	0.0	0.4			**1.0**
Client deposits	Due to customers	Banking book		○										
Securities backed lending and mortgages	Loans	Banking book		○										
Municipal securities and closed-end funds trading	Trading portfolio assets and liabilities	Trading book[2]		○	○			○	○		○			
Personal & Corporate Banking[1]								0.0	0.0					**0.0**
Asset Management								0.0	0.0					**0.0**
Investment Bank								1.6	2.9	3.3	2.5	0.0	0.2	**10.5**
Investor Client Services														
Fixed income, equities, foreign exchange and commodities, securities and derivatives	Trading portfolio assets and liabilities, positive and negative replacement values	Trading book	●	●	●	●	○	●	●	●	●			
Structured notes	Financial liabilities designated at fair value													
Corporate Client Solutions														
Originate to distribute loans and CMBS origination[3]	Trading portfolio assets	Trading book		○	●								○	
Take and hold loans	Loans	Banking book		○										
Loans, structured loans, reverse repurchase agreements and securities borrowing	Financial assets designated at fair value	Banking book		○										
Corporate Center – Group ALM[1]								0.1	0.2	0.1	0.5			**0.9**
Centralized liquidity and funding	Debt issued and due to banks	Banking book		●										
	Repurchase and reverse repurchase agreements	Trading book		○				○	○					
	Balances with central banks and Due from banks	Banking book		○										
Global and local liquidity reserves	Financial investments available-for-sale	Banking book		●										
	Trading portfolio assets	Trading book		○	○			○	○		●			
Mortgage and other loans	Loans	Banking book		●										
Client deposits	Due to customers	Banking book		●										
Hedging instruments and other derivatives	Positive and negative replacement values	Banking book		●										
Corporate Center – Non-core and Legacy Portfolio								0.4	0.6	0.8	0.2	0.1	0.5	**2.6**
Assets and derivatives considered to be non-core	Trading portfolio assets and liabilities, positive and negative replacement values	Trading book		●	●	●		○	○	○	○	○	○	
Structured notes	Financial liabilities designated at fair value													
Counterparty CVA management[4]	Positive and negative replacement values	Trading book		●	●	●								
Reclassified held for trading assets, and corporate and asset-based lending	Loans	Banking book		○										
Portfolio diversification effect[5]								(0.8)	(1.4)	0.0	(0.8)	0.0	0.0	**(2.9)**
Total								**1.5**	**2.8**	**4.2**	**2.7**	**0.1**	**0.7**	**12.1**

● Key contributor ○ Less significant contributor

1 Interest rate risk from Wealth Management and Personal & Corporate Banking loans and deposits is transferred to Corporate Center – Group ALM. 2 Although risk is controlled under the market risk framework, Puerto Rico closed-end fund positions are treated as banking book for capital underpinning purposes due to market illiquidity. 3 Credit risk on loan underwriting is captured through, and reported as part of, credit risk RWA. 4 Counterparty credit risk in the valuation of OTC derivative instruments, derivatives embedded in funded assets designated at fair value and derivatives embedded in traded debt instruments is captured through credit valuation adjustment RWA calculated under the advanced IRB or standardized approach and reported as part of credit risk RWA. 5 Negative market risk RWA are due to diversification effects which are allocated to Corporate Center – Services. ▲

Market risk stress loss

EDTF | Pillar 3 | We measure and manage our market risks primarily through a comprehensive framework of non-statistical measures and related limits. This includes an extensive series of stress tests and scenario analyses, which we continuously evaluate in order to ensure that any losses resulting from an extreme, yet plausible, event do not exceed our risk appetite. ▲▲

Liquidity adjusted stress

EDTF | Pillar 3 | Our primary measure of stress loss for Group-wide market risk is liquidity-adjusted stress (LAS). The LAS framework is designed to capture the economic losses that could arise under specified stress scenarios. This is in part achieved by replacing the standard one-day and 10-day holding period assumptions used for management and regulatory VaR with liquidity-adjusted holding periods, as explained below. Shocks are then applied to positions based on the expected market movements over the liquidity-adjusted holding periods resulting from the specified scenario.

The holding periods used in LAS are calibrated to reflect the amount of time it would take to reduce or hedge the risk of positions in each major risk factor in a stressed environment, assuming maximum utilization of the relevant position limits. Holding periods are also subject to minimum periods, regardless of observed liquidity levels, reflecting the fact that identification of and reaction to a crisis may not always be immediate.

The expected market movements are derived using a combination of historical market behavior, based on an analysis of historical events, and forward-looking analysis including consideration of defined scenarios that have not occurred historically.

LAS-based limits are applied at a number of levels: Group-wide, business divisions and Corporate Center, business areas and sub-portfolios. In addition, LAS forms the core market risk component of our combined stress test framework and is therefore integral to our overall risk appetite framework. ▲▲

➔ **Refer to "Risk appetite framework" in this section for more information**

➔ **Refer to "Stress testing" in this section for more information on our stress testing framework**

EDTF | Pillar 3 | Value-at-risk

Method applied	Historical simulation
Data set	Five years
Holding period	1 day for internal limits, 10 days for regulatory VaR
Confidence level	95% for internal limits, 99% for regulatory VaR – both based on expected tail loss
Population	Regulatory trading book for regulatory VaR, a broader population for internal limits

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VaR definition

Audited | EDTF | Pillar 3 | Value-at-risk (VaR) is a statistical measure of market risk, representing the market risk losses that could potentially be realized over a set time horizon (holding period) at an established level of confidence. The measure assumes no change in the Group's trading positions over the set time horizon.

We calculate VaR on a daily basis, based on the direct application of historical changes in market risk factors to our current positions – a method known as historical simulation. We use a single VaR model for both internal management purposes and for determining market risk regulatory capital requirements, although we consider different confidence levels and time horizons. For internal management purposes, we establish risk limits and measure exposures using VaR at the 95% confidence level with a one-day holding period, aligned to the way we consider the risks associated with our trading activities. The regulatory measure of market risk used to underpin the market risk capital requirement under Basel III requires a measure equivalent to a 99% confidence level using a 10-day holding period. ▲

Additionally, the population of the portfolio within management and regulatory VaR is slightly different. The population within regulatory VaR meets minimum regulatory requirements for inclusion in regulatory VaR. Management VaR includes a broader population of positions. For example, regulatory VaR excludes the credit spread risks from the securitization portfolio, which are treated instead under the securitization approach for regulatory purposes. ▲▲

Management VaR for the period

EDTF | The tables below show minimum, maximum, average and period-end management VaR by business division and Corporate Center unit, and by general market risk type. Market risk, measured as 1-day, 95% confidence level management VaR continued to be managed at low levels and average VaR remained stable in 2015 compared with the prior year. With VaR at such low levels, we continued to observe large relative changes driven by positions arising from client facilitation, as well as option expiries, the effect of which can be seen in the maximum VaR for the period. ▲

Audited | EDTF |

Management value-at-risk (1-day, 95% confidence, 5 years of historical data) by business division and Corporate Center unit and general market risk type[1]

	For the year ended 31.12.15								
CHF million					**Equity**	**Interest rates**	**Credit spreads**	**Foreign exchange**	**Commodities**
	Min.				**5**	**7**	**4**	**1**	**0**
		Max.			**23**	**18**	**9**	**11**	**5**
			Average		**9**	**11**	**6**	**4**	**2**
				31.12.15	**7**	**9**	**4**	**3**	**1**
Total management VaR, Group	**10**	**25**	**15**	**13**	***Average (per business division and risk type)***				
Wealth Management	**0**	**0**	**0**	**0**	***0***	***0***	***0***	***0***	***0***
Wealth Management Americas	**0**	**1**	**0**	**0**	***0***	***1***	***1***	***0***	***0***
Personal & Corporate Banking	**0**	**0**	**0**	**0**	***0***	***0***	***0***	***0***	***0***
Asset Management	**0**	**0**	**0**	**0**	***0***	***0***	***0***	***0***	***0***
Investment Bank	**7**	**22**	**12**	**10**	***9***	***6***	***3***	***4***	***2***
CC – Services	**0**	**0**	**0**	**0**	***0***	***0***	***0***	***0***	***0***
CC – Group ALM[2]	**4**	**16**	**8**	**6**	***0***	***8***	***0***	***1***	***0***
CC – Non-core and Legacy Portfolio	**5**	**9**	**6**	**5**	***0***	***4***	***5***	***1***	***0***
Diversification effect[3,4]			**(12)**	**(9)**	***0***	***(9)***	***(4)***	***(1)***	***0***

	For the year ended 31.12.14								
CHF million					Equity	Interest rates	Credit spreads	Foreign exchange	Commodities
	Min.				5	7	6	2	1
		Max.			24	11	12	8	3
			Average		9	9	9	4	2
				31.12.14	14	8	7	4	1
Total management VaR, Group	**10**	**23**	**14**	**17**	*Average (per business division and risk type)*				
Wealth Management	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Wealth Management Americas	0	2	1	1	*0*	*1*	*2*	*0*	*0*
Personal & Corporate Banking	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Asset Management	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Investment Bank	7	24	12	17	*9*	*7*	*5*	*3*	*2*
CC – Core Functions[2]	3	7	4	5	*0*	*4*	*0*	*1*	*0*
CC – Non-core and Legacy Portfolio	6	11	8	6	*2*	*5*	*7*	*1*	*0*
Diversification effect[3,4]			(11)	(12)	*(2)*	*(8)*	*(5)*	*(1)*	*0*

1 Statistics at individual levels may not be summed to deduce the corresponding aggregate figures. The minima and maxima for each level may well occur on different days, and likewise, the VaR for each business line or risk type, being driven by the extreme loss tail of the corresponding distribution of simulated profits and losses for that business line or risk type, may well be driven by different days in the historical timeseries, rendering invalid the simple summation of figures to arrive at the aggregate total. 2 Following changes in the organization of Corporate Center units as of 1 January 2015, amounts previously reported under CC – Core Functions are now reported under CC – Group ALM. 3 Difference between the sum of the standalone VaR for the business divisions and Corporate Center units and the VaR for the Group as a whole. 4 As the minimum and maximum occur on different days for different business divisions and Corporate Center, it is not meaningful to calculate a portfolio diversification effect. ▲▲

Regulatory VaR for the period

EDTF | Pillar 3 | The tables below show minimum, maximum, average and period-end regulatory VaR by business division and Corporate Center unit, and by general market risk type. Regulatory VaR exhibits a similar pattern to management VaR, with a more pronounced variability reflected in the reported maximum levels due to the 10-day holding period used. ▲▲

EDTF | Pillar 3 |

Regulatory value-at-risk (10-day, 99% confidence, 5 years of historical data) by business division and Corporate Center unit and general market risk type[1]

	For the year ended 31.12.15								
CHF million					**Equity**	**Interest rates**	**Credit spreads**	**Foreign exchange**	**Commodities**
	Min.				22	14	14	6	4
		Max.			66	42	40	72	20
			Average		35	28	24	25	9
				31.12.15	27	16	14	20	6
Total regulatory VaR, Group	28	77	45	32	*Average (per business division and risk type)*				
Wealth Management	0	2	0	0	*0*	*0*	*0*	*0*	*0*
Wealth Management Americas	3	6	5	4	*0*	*5*	*4*	*0*	*0*
Personal & Corporate Banking	0	1	0	0	*0*	*0*	*0*	*0*	*0*
Asset Management	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Investment Bank	26	74	43	33	*35*	*21*	*16*	*24*	*8*
CC – Services	0	0	0	0	*0*	*0*	*0*	*0*	*0*
CC – Group ALM[2]	1	43	19	2	*0*	*17*	*1*	*4*	*0*
CC – Non-core and Legacy Portfolio	8	27	14	10	*0*	*10*	*12*	*4*	*4*
Diversification effect[3,4]			(36)	(16)	*0*	*(26)*	*(10)*	*(7)*	*(3)*

	For the year ended 31.12.14								
CHF million					Equity	Interest rates	Credit spreads	Foreign exchange	Commodities
	Min.				23	18	32	4	5
		Max.			60	48	69	59	32
			Average		33	27	45	24	12
				31.12.14	46	22	34	24	7
Total regulatory VaR, Group	31	104	50	60	*Average (per business division and risk type)*				
Wealth Management	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Wealth Management Americas	3	11	5	6	*0*	*5*	*7*	*0*	*0*
Personal & Corporate Banking	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Asset Management	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Investment Bank	29	87	45	57	*33*	*26*	*31*	*21*	*11*
CC – Core Functions[2]	6	35	15	19	*0*	*15*	*2*	*4*	*0*
CC – Non-core and Legacy Portfolio	15	48	28	16	*2*	*15*	*28*	*9*	*2*
Diversification effect[3,4]			(43)	(38)	*(2)*	*(34)*	*(23)*	*(10)*	*(1)*

1 Statistics at individual levels may not be summed to deduce the corresponding aggregate figures. The minima and maxima for each level may well occur on different days, and likewise, the VaR for each business line or risk type, being driven by the extreme loss tail of the corresponding distribution of simulated profits and losses for that business line or risk type, may well be driven by different days in the historical timeseries, rendering invalid the simple summation of figures to arrive at the aggregate total. 2 Following changes in the organization of Corporate Center units as of 1 January 2015, amounts previously reported under CC – Core Functions are now reported under CC – Group ALM. 3 Difference between the sum of the standalone VaR for the business divisions and Corporate Center units and the VaR for the Group as a whole. 4 As the minimum and maximum occur on different days for different business divisions and Corporate Center, it is not meaningful to calculate a portfolio diversification effect. ▲▲

VaR limitations

Audited | EDTF | Pillar 3 | Actual realized market risk losses may differ from those implied by our VaR for a variety of reasons.

- The VaR measure is calibrated to a specified level of confidence and may not indicate potential losses beyond this confidence level.
- The one-day time horizon used for VaR for internal management purposes, or 10-day in the case of the regulatory VaR measure, may not fully capture the market risk of positions that cannot be closed out or hedged within the specified period.
- In certain cases, VaR calculations approximate the impact of changes in risk factors on the values of positions and portfolios. This may happen because the number of risk factors included in the VaR model is necessarily limited. For example, yield curve risk factors do not exist for all future dates.
- The effect of extreme market movements is subject to estimation errors, which may result from non-linear risk sensitivities, as well as the potential for actual volatility and correlation levels to differ from assumptions implicit in the VaR calculations.
- The use of a five-year window means that sudden increases in market volatility will tend not to increase VaR as quickly as the use of shorter historical observation periods, but the increase will affect our VaR for a longer period of time. Similarly, following a period of increased volatility, as markets stabilize, VaR predictions will remain more conservative for a period of time influenced by the length of the historical observation period.

We recognize that no single measure may encompass the entirety of risks associated with a position or portfolio. Consequently, we employ a suite of various metrics with both overlapping and complementary characteristics in order to create a holistic framework which ensures material completeness of risk identification and measurement. As a statistical aggregate risk measure, VaR supplements our comprehensive stress testing framework.

Moreover, we have an established framework to identify and quantify potential risks that are not fully captured by our VaR model. This framework is explained later in this section. ▲▲▲

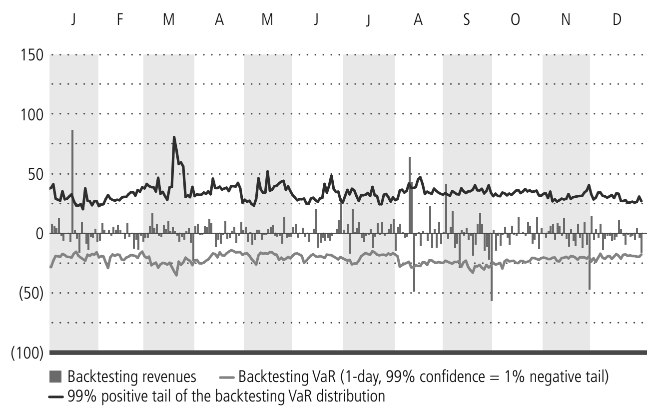
Backtesting of VaR

EDTF | Pillar 3 | For backtesting purposes, we compute backtesting VaR using a 99% confidence level and one-day holding period for the population included within regulatory VaR. The backtesting process compares backtesting VaR calculated on positions at the close of each business day with the revenues generated by those positions on the following business day. Backtesting revenues exclude non-trading revenues, such as fees and commissions and revenues from intraday trading, to ensure a like-for-like comparison. A backtesting exception occurs when backtesting revenues are negative and the absolute value of those revenues is greater than the previous day's backtesting VaR.

Statistically, given the confidence level of 99%, two to three backtesting exceptions per year can be expected. More exceptions than this could indicate that the VaR model is not performing appropriately, as could too few exceptions over a prolonged period of time. However, as noted in the VaR limitations above, a sudden increase or decrease in market volatility relative to the five-year window could lead to a higher or lower number of exceptions, respectively. Accordingly, Group-level backtesting exceptions are investigated, as are exceptional positive backtesting revenues, with results being reported to senior business management, the Group Chief Risk Officer and the divisional Chief Risk Officers. Backtesting exceptions are also reported to internal and external auditors and to the relevant regulators.

EDTF | Pillar 3 | Group: development of backtesting revenues[1] against backtesting VaR[2] (1-day, 99% confidence)

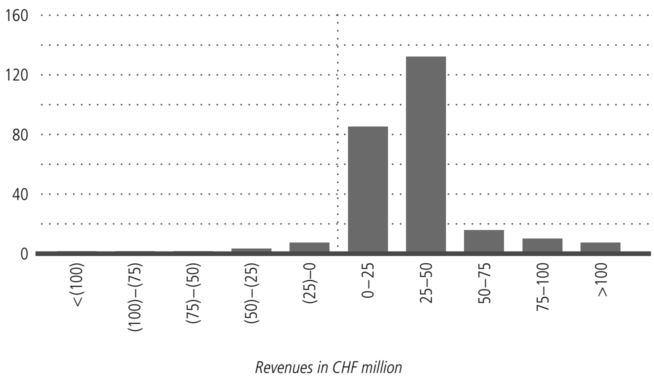
CHF million



1 Excludes non-trading revenues, such as commissions and fees, and revenues from intraday trading.
2 Based on Basel III regulatory VaR, excludes CVA positions and their eligible hedges which are subject to the standalone CVA charge. ▲▲

EDTF | Pillar 3 | Investment Bank and Corporate Center – Non-core and Legacy Portfolio daily revenue distribution[1]

Frequency in number of days *1 January 2015 – 31 December 2015*



1 In addition to backtesting revenues, includes revenues such as commissions and fees, revenues for intraday trading, and own credit. ▲▲

The "Group: development of backtesting revenues against backtesting VaR" chart on the previous page shows the 12-month development of backtesting VaR against the Group's backtesting revenues for 2015. The chart shows both the negative and positive tails of the backtesting VaR distribution at 99% confidence intervals representing, respectively, the losses and gains that could potentially be realized over a one-day period at that level of confidence. Although less pronounced than in previous years, the asymmetry between the negative and positive tails is due to the long gamma risk profile that has been run historically in the Investment Bank. This long gamma position profits from increases in volatility, which therefore benefits the positive tail of the VaR simulated profit and loss distribution.

The histogram "Investment Bank and Corporate Center – Non-core and Legacy Portfolio daily revenue distribution" shows the daily revenue distribution for the Investment Bank and Non-core and Legacy Portfolio for 2015. This includes, in addition to backtesting revenues, revenues such as commissions and fees, revenues for intraday trading and own credit.

There were four Group VaR negative backtesting exceptions during 2015, all of which occurred in the second half of the year. The trading losses that caused the two exceptions in the period from August to mid-September, as well as the three positive backtesting revenue spikes during this period, were primarily driven by the onshore/offshore Chinese foreign exchange basis risk. UBS is exposed to this risk from its allocated Qualified Foreign Institutional Investor (QFII) quota, which allows foreign investors to access the onshore capital markets. The volatility in this currency basis increased substantially after the People's Bank of China unexpectedly and significantly weakened its daily fixing for the Chinese yuan against the US dollar on 11 August 2015. In response to these extreme market moves outside the 99th percentile of the historical VaR time series, UBS significantly reduced its Chinese onshore/offshore foreign exchange basis exposure. The two exceptions at the end of September and November were driven by a combination of (i) a contraction in the aforementioned foreign exchange basis and further market moves and (ii) adjustments to trading revenues resulting from month-end or other non-daily valuation adjustments which partly map to risks accounted for in the capital underpinning for risk-not-in-VaR.

We do not believe that the recent increase in the number of downside exceptions indicates a material deficiency in our VaR model, given the specific circumstances outlined above and the statistical expectation of two to three exceptions per year.

The positive backtesting revenue in January, as shown in the chart, resulted from significant market volatility following the Swiss National Bank's decision to discontinue its exchange rate floor for the Swiss franc against the euro. Extreme market moves, particularly in foreign exchange markets, were observed far outside the 99th percentile of the historical VaR timeseries. ▲▲

VaR model confirmation

EDTF | In addition to model backtesting performed for regulatory purposes, described above, we also conduct extended backtesting for our internal model confirmation purposes. This includes observing model performance across the entire profit and loss distribution, not just the tails, and at multiple levels within the business division and Corporate Center hierarchies. ▲

➔ **Refer to "Risk measurement" in this section for more information on our approach to model confirmation procedures**

VaR model developments in 2015

Audited | EDTF | Pillar 3 | We made no significant changes to the VaR model during 2015, although we improved the VaR model by integrating selected risks-not-in-VaR items, the impact of which was negligible. ▲▲▲

Derivation of regulatory VaR-based RWA

EDTF | Pillar 3 | Regulatory VaR is used to derive the regulatory VaR component of the market risk Basel III RWA, as shown in the "Capital management" section of this report as well as in "Table 2: Detailed segmentation of Basel III exposures and risk-weighted assets" in the "UBS Group AG consolidated supplemental disclosures required under Basel III Pillar 3 regulations" section of this report. This calculation takes the maximum of the period-end regulatory VaR and the average regulatory VaR for the 60 trading days immediately preceding the period end, multiplied by a VaR multiplier set by FINMA. The VaR multiplier, which was three as of 31 December 2015, is dependent upon the number of VaR backtesting exceptions within a 250 business day window. When the number of exceptions is greater than four, the multiplier increases gradually from three to a maximum of four if 10 or more backtesting exceptions occur. This is then multiplied by a risk weight factor of 1,250% to determine RWA. This calculation is set out in the table on the next page. ▲▲

EDTF | Pillar 3 |

Backtesting regulatory value-at-risk (1-day, 99% confidence, 5 years of historical data)

	For the year ended 31.12.15				For the year ended 31.12.14			
CHF million	**Min.**	**Max.**	**Average**	**31.12.15**	Min.	Max.	Average	31.12.14
Group	**14**	**35**	**21**	**18**	15	38	22	20

▲▲

EDTF | Pillar 3 |

Calculation of regulatory VaR-based RWA as of 31 December 2015

CHF million	Period end regulatory VaR (A)	60-day average regulatory VaR (B)	VaR multiplier (C)	**Max (A, B x C) (D)**	Risk weight factor (E)	**Basel III RWA (D x E)**
	32	41	3.0	**122**	1,250%	**1,528**

▲▲

EDTF | Pillar 3 | **Stressed VaR**

Method applied	Historical simulation
Data set	From 1 January 2007 to present
Holding period	10 days
Confidence level	99% based on expected tail loss
Population	Regulatory trading book

▲▲

EDTF | Pillar 3 | Stressed VaR (SVaR) adopts broadly the same methodology as regulatory VaR and is calculated using the same population, holding period (10-day) and confidence level (99%). However, unlike regulatory VaR, the historical data set for SVaR is not limited to five years. SVaR uses continuous one-year data sets to derive the largest potential loss arising from a one-year period of significant financial stress relevant to the current portfolio of the Group.

SVaR is subject to the same limitations as noted for VaR above, but the use of one-year data sets avoids the smoothing effect of the five-year data set used for VaR, and the removal of the five-year window provides for a longer history of potential loss events.

Therefore, although the significant period of stress during the financial crisis is no longer contained in the historical 5-year period used for regulatory VaR, SVaR will continue to use this data. This approach is intended to reduce the procyclicality of the regulatory capital requirements for market risks.

We made no significant changes to the SVaR model during 2015. ▲▲

SVaR for the period

EDTF | Pillar 3 | Over the year, SVaR has exhibited a similar pattern to that noted for management and regulatory VaR above. ▲▲

Derivation of SVaR-based RWA

EDTF | Pillar 3 | SVaR is used to derive the SVaR component of the market risk Basel III RWA as shown in the "Capital management" section of this report as well as in "Table 2: Detailed segmentation of Basel III exposures and risk-weighted assets" in the "UBS Group AG consolidated supplemental disclosures required under Basel III Pillar 3 regulations" section of this report. The derivation of this component is similar to that explained above for regulatory VaR, and is shown below. ▲▲

EDTF | Pillar 3 |

Calculation of SVaR-based RWA as of 31 December 2015

CHF million	Period end SVaR (A)	60-day average SVaR (B)	VaR multiplier (C)	**Max (A, B x C) (D)**	Risk weight factor (E)	**Basel III RWA (D x E)**
	58	76	3.0	**227**	1,250%	**2,835**

▲▲

EDTF | Pillar 3 |

Stressed value-at-risk (10-day, 99% confidence, historical data from 1 January 2007 to present) by business division and Corporate Center unit and general market risk type[1]

	For the year ended 31.12.15								
CHF million					Equity	Interest rates	Credit spreads	Foreign exchange	Commodities
	Min.				46	25	46	11	7
		Max.			274	131	113	156	63
			Average		87	58	74	55	20
				31.12.15	57	56	48	31	16
Total stressed VaR, Group	54	291	96	58	*Average (per business division and risk type)*				
Wealth Management	0	3	0	0	*0*	*0*	*0*	*0*	*0*
Wealth Management Americas	7	18	11	10	*0*	*9*	*15*	*0*	*0*
Personal & Corporate Banking	0	2	0	0	*0*	*0*	*0*	*0*	*0*
Asset Management	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Investment Bank	48	306	92	63	*87*	*49*	*50*	*56*	*18*
CC – Services	0	0	0	0	*0*	*0*	*0*	*0*	*0*
CC – Group ALM[2]	5	75	42	8	*0*	*40*	*5*	*7*	*0*
CC – Non-core and Legacy Portfolio	15	66	32	20	*0*	*24*	*24*	*7*	*7*
Diversification effect[3,4]			(81)	(41)	*0*	*(64)*	*(21)*	*(15)*	*(5)*

	For the year ended 31.12.14								
CHF million					Equity	Interest rates	Credit spreads	Foreign exchange	Commodities
	Min.				46	18	74	9	9
		Max.			348	156	233	281	84
			Average		71	67	121	56	29
				31.12.14	103	32	98	45	16
Total stressed VaR, Group	63	373	94	105	*Average (per business division and risk type)*				
Wealth Management	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Wealth Management Americas	9	22	14	15	*0*	*8*	*22*	*0*	*0*
Personal & Corporate Banking	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Asset Management	0	0	0	0	*0*	*0*	*0*	*0*	*0*
Investment Bank	50	381	86	101	*70*	*50*	*89*	*51*	*28*
CC – Core Functions[2]	29	66	44	44	*0*	*41*	*6*	*6*	*0*
CC – Non-core and Legacy Portfolio	23	115	54	30	*9*	*46*	*56*	*17*	*3*
Diversification effect[3,4]			(104)	(85)	*(8)*	*(78)*	*(52)*	*(18)*	*(2)*

1 Statistics at individual levels may not be summed to deduce the corresponding aggregate figures. The minima and maxima for each level may well occur on different days, and likewise, the VaR for each business line or risk type, being driven by the extreme loss tail of the corresponding distribution of simulated profits and losses for that business line or risk type, may well be driven by different days in the historical timeseries, rendering invalid the simple summation of figures to arrive at the aggregate total. 2 Following changes in the organization of Corporate Center units as of 1 January 2015, amounts previously reported under CC – Core Functions are now reported under CC – Group ALM. 3 Difference between the sum of the standalone VaR for the business divisions and Corporate Center units and the VaR for the Group as a whole. 4 As the minimum and maximum occur on different days for different business divisions and Corporate Center, it is not meaningful to calculate a portfolio diversification effect.

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Risk, treasury and capital management

Risks-not-in-VaR

Risks-not-in-VaR definition

EDTF | Pillar 3 | We have an established framework to identify and quantify potential risk factors that are not fully captured by our VaR model. We refer to these risk factors as risks-not-in-VaR (RniV). This framework is used to underpin these potential risk factors with regulatory capital, calculated as a multiple of regulatory VaR and SVaR.

RniV arises from approximations made by the VaR model to quantify the effect of risk factor changes on the profit and loss of positions and portfolios, as well as the use of proxies for certain market risk factors. We categorize RniV by means of items and keep track of which instrument classes are affected by each item.

When new types of instruments are included in the VaR population, we assess whether new items must be added to the inventory of RniV items. ▲▲

Risks-not-in-VaR quantification

EDTF | Pillar 3 | Risk officers perform a quantitative assessment for each position in the inventory of RniV annually. The assessment is made in terms of a 10-day 99%-VaR measure applied to the difference between the profit and loss scenarios which would have been produced based on our best estimate given available data, and the profit and loss scenarios generated by the current model used for the regulatory VaR calculation. Whenever the available market data allows, a historical simulation approach with five years of historical data is used to estimate the 10-day 99%-VaR for an item. Other eligible methods are based on analytical considerations or stress test and worst-case assessments. Statistical methods are used to aggregate the standalone risks, yielding a Group-level 10-day 99%-VaR estimate of the entire inventory of RniV items at the specific date. The ratio of this amount to regulatory VaR is used to produce estimates for arbitrary points in time by scaling the corresponding regulatory VaR figures with that fixed ratio. An analogous approach is applied for SVaR. ▲▲

Risks-not-in-VaR mitigation

EDTF | Pillar 3 | Material RniV items are monitored and controlled by means and measures other than VaR, such as position limits and stress limits. Additionally, there are ongoing initiatives to extend the VaR model to better capture these risks. ▲▲

Derivation of RWA add-on for risks-not-in-VaR

EDTF | Pillar 3 | The RniV framework is used to derive the RniV-based component of the market risk Basel III RWA, using the aforementioned approach, which is approved by FINMA and subject to an annual recalibration. As the RWA from RniV are add-ons, they do not reflect any diversification benefits across risks capitalized through VaR and SVaR.

Following the annual calibration of the ratios in the third quarter of 2015, FINMA confirmed that the RniV VaR and SVaR capital ratios remained unchanged at 105% and 92%, respectively.

FINMA continues to require that RniV stressed VaR capital is floored at RniV VaR capital.

Based on the regulatory VaR and SVaR RWA noted above, the RniV RWA add-ons as of 31 December 2015 reduced to CHF 1.6 billion and CHF 2.6 billion, respectively, compared with CHF 2.1 billion and CHF 3.8 billion as of 31 December 2014, following the reduction in VaR and SVaR. ▲▲

EDTF | Pillar 3 | **Incremental risk charge**

Method applied	Expected portfolio loss simulation
Holding period	One-year liquidity horizon
Confidence level	99.9%
Population	Regulatory trading book positions subject to issuer risk, excluding equity and securitization exposures

▲▲

EDTF | Pillar 3 | The incremental risk charge (IRC) represents an estimate of the default and rating migration risk of all trading book positions with issuer risk, except for equity products and securitization exposures, measured over a one-year time horizon at a 99.9% confidence level. The calculation of the measure assumes all positions in the IRC portfolio have a one-year liquidity horizon and are kept unchanged over this period.

The portfolio default and rating migration loss distribution is estimated using a Monte Carlo simulation of correlated rating migration events (defaults and rating changes) for all issuers in the IRC portfolio, based on a Merton-type model. For each position, default losses are calculated based on the maximum default exposure measure (the loss in the case of a default event assuming zero recovery) and a random recovery concept. To account for potential basis risk between instruments, different recovery values may be generated for different instruments even if they belong to the same issuer. To calculate rating migration losses, a linear (delta) approximation is used. A loss due to a rating migration event is calculated as the estimated change in credit spread due to the change in rating migration, multiplied by the corresponding sensitivity of a position to changes in credit spreads.

The table below provides a breakdown of the Group's period-end incremental risk charge by business division and Corporate Center unit. The reduction in the Group's period-end IRC was mainly driven by a risk reduction in the Group ALM liquidity asset buffer and a model change applied in the fourth quarter of 2015. ▲▲

Derivation of IRC-based RWA

EDTF | Pillar 3 | IRC is calculated weekly, the results of which are used to derive the IRC-based component of the market risk Basel III RWA, as shown in the "Capital management" section of this report as well as in "Table 2: Detailed segmentation of Basel III exposures and risk-weighted assets" in the "UBS Group AG consolidated supplemental disclosures required under Basel III Pillar 3 regulations" section of this report. The derivation is similar to that for VaR and SVaR-based RWA, but without a VaR multiplier, and is shown below. ▲▲

EDTF | Pillar 3 |
Incremental risk charge by business division and Corporate Center unit

	For the year ended 31.12.15				For the year ended 31.12.14			
CHF million	**Min.**	**Max.**	**Average**	**31.12.15**	Min.	Max.	Average	31.12.14
Wealth Management								
Wealth Management Americas	**19**	**67**	**40**	**30**	11	28	19	27
Personal & Corporate Banking								
Asset Management								
Investment Bank	**128**	**197**	**161**	**197**	130	300	182	197
CC – Services								
CC – Group ALM[1]	**53**	**116**	**81**	**60**	102	165	131	108
CC – Non-core and Legacy Portfolio	**15**	**51**	**29**	**27**	31	92	57	46
Diversification effect[2,3]			**(106)**	**(95)**			(213)	(135)
Total incremental risk charge, Group	**159**	**235**	**205**	**219**	93	264	175	243

1 Following changes in the organization of Corporate Center units as of 1 January 2015, amounts previously reported under CC – Core functions are now reported under CC – Group ALM. 2 Difference between the sum of the standalone IRC for the business divisions and Corporate Center units and the IRC for the Group as a whole. 3 As the minimum and maximum occur on different days for different business divisions and Corporate Center, it is not meaningful to calculate a portfolio diversification effect.

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EDTF | Pillar 3 |
Calculation of IRC-based RWA as of 31 December 2015

CHF million	Period end IRC (A)	Average of last 12 weeks IRC (B)	**Max (A, B) (C)**	Risk weight factor (D)	**Basel III RWA (C x D)**
	219	201	**219**	1,250%	**2,732**

▲▲

Risk, treasury and capital management

EDTF | Pillar 3 | Comprehensive risk measure

Method applied	Expected portfolio loss simulation
Holding period	One-year liquidity horizon
Confidence level	99.9%
Population	Positions in the correlation trading portfolio

▲▲

EDTF | Pillar 3 | The comprehensive risk measure (CRM) is an estimate of the default and complex price risk, including the convexity and cross-convexity of the CRM portfolio across credit spread, correlation and recovery, measured over a one-year time horizon at a 99.9% confidence level. The calculation of the measure assumes that all positions in the CRM portfolio have a one-year liquidity horizon and are kept unchanged over this time period. The model scope covers collateralized debt obligation (CDO) swaps, credit-linked notes (CLNs), 1st and nth-to-default swaps and CLNs and hedges for these positions, including credit default swaps (CDSs), CLNs and index CDSs.

The CRM profit and loss distribution is estimated using a Monte Carlo simulation of defaults over the next 12 months, and calculates resulting cash flows in the CRM portfolio. The portfolio is then revalued on the one-year horizon date, with inputs such as credit spreads and index basis being migrated from spot to horizon date. The 99.9% negative quantile of the resulting profit and loss distribution is then taken to be the CRM result. Our CRM methodology is subject to minimum qualitative standards as well as stress testing.

Since the exit of the Non-core correlation trading portfolio market risk in 2014, the CRM for the Group has remained at low levels, as shown in the table below. ▲▲

➔ **Refer to "Corporate Center – Non-core and Legacy Portfolio" in the "Risk management and control" section of this report for more information on the Non-core correlation trading portfolio**

Derivation of CRM-based RWA

EDTF | Pillar 3 | CRM is calculated weekly, and the results are used to derive the CRM-based component of the market risk Basel III RWA, as shown in the "Capital management" section of this report as well as in "Table 2: Detailed segmentation of Basel III exposures and risk-weighted assets" in the "UBS Group AG consolidated supplemental disclosures required under Basel III Pillar 3 regulations" section of this report. The calculation is subject to a floor equal to 8% of the equivalent capital charge under the specific risk measure (SRM) for the correlation trading portfolio. The calculation is shown below. ▲▲

EDTF | Pillar 3 |

Comprehensive risk measure

	For the year ended 31.12.15				For the year ended 31.12.14			
CHF million	**Min.**	**Max.**	**Average**	**31.12.15**	Min.	Max.	Average	31.12.14
Total comprehensive risk measure, Group	**4**	**12**	**8**	**5**	5	335	120	6

▲▲

EDTF | Pillar 3 |

Calculation of CRM-based RWA as of 31 December 2015

CHF million	Period end CRM (A)	Average of last 12 weeks CRM (B)[1]	**Max (A, B) (C)**	Risk weight factor (D)	**Basel III RWA (C x D)**
	5	7	**7**	1,250%	**84**

1 CRM = Max (CRM model result, 8% of equivalent charge under the SRM).

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Securitization positions in the trading book

EDTF | Pillar 3 | Our exposure to securitization positions in the trading book is limited and relates primarily to positions in Corporate Center – Non-core and Legacy Portfolio which we continue to wind down. A small amount of exposure also arises from secondary trading in commercial mortgage-backed securities in the Investment Bank. Refer to "Table 2: Detailed segmentation of Basel III exposures and risk-weighted assets" in the "UBS Group AG consolidated supplemental disclosures required under Basel III Pillar 3 regulations" section of this report for more information. ▲▲

Interest rate risk in the banking book

Sources of interest rate risk in the banking book

Audited | EDTF | Pillar 3 | Interest rate risk in the banking book arises from balance sheet positions such as *Loans and receivables,* client deposits and *Debt issued*, *Available-for-sale instruments,* certain *Instruments designated at fair value through profit or loss,* derivatives measured at fair value through profit or loss and derivatives utilized for cash flow hedge accounting purposes, as well as related funding transactions. These positions may impact *Other comprehensive income* or profit or loss, depending on their accounting treatment.

Our largest banking book interest rate exposures arise from client deposits and lending products in both our wealth management businesses and Personal & Corporate Banking. For Wealth Management and Personal & Corporate Banking, the inherent interest rate risks are transferred either by means of back-to-back transactions or, in the case of products with no contractual maturity date or direct market-linked rate, by replicating portfolios from the originating business into Group ALM, which manages the risks on an integrated basis allowing for netting interest rate risks across different sources. Any residual interest rate risks in Wealth Management and Personal & Corporate Banking that are not transferred to Group ALM are managed locally and are subject to independent monitoring and control both in the locations by local risk control units as well as centrally by Market Risk Control. To manage the interest rate risk centrally, Group ALM utilizes derivative instruments, most of which are in designated hedge accounting relationships. A significant amount of interest rate risk also arises from Group ALM financing and investing activities, for example the investment and refinancing of non-monetary corporate balance sheet items that have indefinite maturities, such as equity, goodwill and real estate. For these items, senior management has defined specific target durations based on which we fund and invest as applicable. These targets are defined by replication portfolios, which establish rolling benchmarks to execute against. Group ALM also maintains a portfolio of available-for-sale debt investments to meet the Group's liquidity needs. In the first quarter of 2015, we shortened the target duration for the investment of our Swiss franc-denominated equity, primarily in response to the prevailing negative Swiss franc interest rate environment. This resulted in an initial increase in negative interest rate sensitivity in Group ALM. This exposure was subsequently reduced as Group ALM rebalanced the banking book to meet the new target duration of equity. As of 31 December 2015, our consolidated equity was invested as follows: in Swiss francs with an average duration of approximately two years and fair value sensitivity of CHF 4 million per basis point; in US dollars with an average duration of approximately five years and a sensitivity of CHF 10 million per basis point. The sensitivities relate directly to the chosen durations.

Interest rate risk within Wealth Management Americas arises from the business division's portfolio of available-for-sale investments, in addition to its lending and deposit products offered to clients. This interest rate risk is closely measured, monitored and managed within approved risk limits and controls, taking into account Wealth Management Americas' balance sheet items that mutually offset interest rate risk.

Banking book interest rate exposure in the Investment Bank arises predominantly from the business of Corporate Client Solutions, where transactions are subject to approval on a case-by-case basis.

Corporate Center – Non-core and Legacy Portfolio assets that were reclassified to *Loans and receivables* from *Held for trading* in the fourth quarter of 2008 and the first quarter of 2009, and certain other debt securities held as *Loans and receivables,* also give rise to non-trading interest rate risk. ▲▲▲

Effect of interest rate changes on shareholders' equity and CET1 capital

EDTF | The "Accounting and capital effect of changes in interest rates" table below illustrates the accounting and CET1 capital treatment of gains and losses resulting from changes in interest rates. For instruments held at fair value, a change in interest rates results in an immediate fair value gain or loss recognized either in the Income statement or through Other comprehensive income (OCI). For assets and liabilities held at amortized cost, a change in interest rates does not result in a change in the carrying amount of the instruments, but could affect the amount of interest income or expense recognized over time in the Income statement. Typically, increases in interest rates would lead to an immediate reduction in the value of our longer-term assets held at fair value, but we would expect this to be offset over time through higher net interest income (NII) on our core banking products.

➔ **Refer to "Reconciliation IFRS equity to Swiss SRB capital" in the "Capital management" section of this report for more information**

In addition to the differing accounting treatments, our banking book positions have different sensitivities to different points on the yield curves. For example, our portfolios of available-for-sale debt securities and interest rate swaps designated as cash flow hedges, on the whole, are more sensitive to changes in longer-duration interest rates, whereas our deposits and a significant portion of our loans contributing to net interest income are more sensitive to short-term rates. These factors are important as yield curves may not shift on a parallel basis and could, for example, exhibit an initial steepening, followed by a subsequent flattening over time.

By virtue of the accounting treatment and yield curve sensitivities outlined above, in a steepening yield curve scenario we would expect to recognize an initial reduction in shareholders' equity as a result of fair value losses through OCI. This would be compensated over time by increased NII once increases in interest rates affect the shorter end of the yield curve in particular. The effect on CET1 capital would be similar, albeit less pronounced, as gains and losses on interest rate swaps designated as cash flow hedges are not recognized for regulatory capital purposes.

We subject the interest rate-sensitive banking book exposures to a suite of interest rate scenarios in order to assess the effect on expected NII over both a 1-year and a 3-year time horizon assuming constant business volumes. We also consider the effect of the interest rate movements in each scenario on the fair value recognized through OCI of the available-for-sale debt portfolios and cash flow hedges managed by Group ALM. The scenario assessment also includes the estimated effect through OCI on shareholders' equity and CET1 capital from pension fund assets and liabilities. While select standard scenarios, such as a parallel rise in all yield curves of 100 basis points, are retained and regularly used, other scenarios are adopted as a function of changing market conditions.

EDTF | **Pillar 3** |

Accounting and capital effect of changes in interest rates[1]

	Recognition		Shareholders' equity		CET1 capital	
	Timing	**Location**	Gains	Losses	Gains	Losses
Available-for-sale debt portfolios	Immediate	OCI	●	●		●
Economic hedges classified as held for trading	Immediate	Income statement	●	●	●	●
Designated cash flow hedges	Immediate	OCI[2]	●	●		
Loans and deposits at amortized costs	Gradual	Income statement	●	●	●	●

1 Refer to the "Reconciliation IFRS equity to Swiss SRB capital" table in the "Capital management" section of this report for more information on the differences between shareholders' equity and CET1 capital. 2 Excluding hedge ineffectiveness which is recognized in the income statement in accordance with IFRS.

At the end of 2015, the following scenarios were analyzed in detail:

- Negative IR (NIR) then Recovery: euro and Swiss franc yield curves drop 50 basis points in parallel during the first three months with no zero-floor applied, and therefore become negative, or more negative. Yield curves in US dollars and other currencies, on the other hand, drop 25 basis points in parallel, but remain floored at zero. Thereafter, all rates recover according to market-implied forward rates.
- NIR then Constant: same assumptions as the NIR then Recovery scenario, but after the first three months, rates do not recover but remain at the then-prevailing levels until the end of the simulated time horizon.
- Eurozone Deflation and Fed Tapering: US dollar yield curve rises and steepens; euro and Swiss franc yield curves develop as in the NIR then Recovery scenario.
- Parallel +100 basis points: All yield curves rise 100 basis points in parallel.
- 2015 CCAR Adverse: Federal Reserve Comprehensive Capital Analysis and Review (CCAR) – Adverse Scenario.
- 2015 CCAR Severely Adverse: Federal Reserve CCAR – Severely Adverse Scenario.
- Quantitative Easing then Recovery: Central banks keep markets flooded with liquidity, pinning down short-end rates (zero or negative interest rate policy). Bond markets/investors subsequently take fright over inflation fears, resulting in long-end rates spiking up sharply (resulting in 5-year forward rates reaching pre-2008 levels); short-end rates eventually follow suit.
- Flattener: yield curves across all currencies undergo a sharp rise for short tenors, with only a modest rise in the long end of the yield curve: +200 basis points for tenors up to 1 year, +100 basis points for 5 years and +20 basis points for 8-year to 10-year tenors.
- Constant Rates: All rates stay at current levels.

The results are compared to a baseline NII, which is calculated assuming interest rates in all currencies develop according to their market-implied forward rates and under the assumption of constant business volumes. The calculated effects on baseline NII range between a deterioration of 4% and 17% over a 1-year and 3-year horizon, respectively, and an improvement of approximately 17% over both a 1-year and a 3-year horizon. The most adverse scenario is the NIR then Constant scenario over a 1-year horizon and the CCAR Severely Adverse scenario over a 3-year horizon. The most beneficial scenario over a 1-year scenario is the Flattener and the Parallel +100 basis points scenario over a 3-year horizon.

In addition to the above scenario analysis, we also monitor the sensitivity of the NII to immediate parallel shocks of –200 and +200 basis points compared with baseline NII (again, under the assumption of a constant balance sheet volume and structure). Any resulting reduction in first-year NII relative to the baseline NII is subject to predefined threshold levels to monitor the extent to which the NII is exposed to an adverse movement in market rates. As of 31 December 2015, the baseline NII would have been approximately 11% less under a parallel shock of –200 basis points, whereas under a parallel +200 basis point shock, the baseline NII would have been approximately 31% higher.

A key factor in our ability to improve our NII throughout 2015, despite the low and negative interest rate environment in Swiss francs in particular, has been the large degree of self-funding of our lending businesses through our deposit base in Wealth Management and Personal & Corporate Banking, along with appropriate adjustments to our interest rate product pricing. Should we lose this equilibrium on the balance sheet due to, for example, unattractive pricing relative to our peers for either our mortgages or our deposits, this could have consequences for our ability to maintain our NII at current levels in a persistently low and negative interest rate environment. Because we assume constant business volumes, these risks do not manifest themselves in the abovementioned interest rate scenarios.

Moreover, should the low and negative interest rate environment persist or worsen, this could lead to additional pressure on our NII. While our NII in Swiss francs would remain largely insulated from a further decrease in Swiss franc interest rates, assuming we succeed in maintaining the aforementioned equilibrium, we could face additional costs to hold our Swiss franc high-quality liquid asset portfolio. A reduction of the Swiss National Bank's deposit exemption threshold for banks would also lead to increased costs that we might not be able to offset by, for example, passing on some of the costs to our depositors. Should euro interest rates also become significantly negative, this could likewise increase our liquidity costs and put our NII generated from euro-denominated loans and deposits at risk to volume imbalances occurring. Depending on the overall economic and market environment, sustained and significant negative rates could also lead to our Wealth Management and Personal & Corporate Banking clients paying down their loans together with reducing any excess cash they hold with us as deposits. This would reduce the underlying business volume and lower NII accordingly.

A net decrease in deposits would require replacement funding at a relative cost increase that would depend on various factors, including the term and nature of the replacement funding, whether such funding is raised in the wholesale markets, or whether such funding is raised from swapping with available funding denominated in another currency. On the other hand, imbalances leading to an excess deposit position could require investments at negative yields, which we might not be able to sufficiently compensate for as a result of our excess deposit balance charging mechanisms. ▲

Interest rate risk sensitivity to parallel shifts in yield curves

Audited | EDTF | Pillar 3 | Interest rate risk in the banking book is not underpinned for capital purposes, but is subject to a regulatory threshold. As of 31 December 2015, the economic-value effect of an adverse parallel shift in interest rates of ±200 basis points on our banking book interest rate risk exposures is significantly below the threshold of 20% of eligible capital recommended by regulators.

The interest rate risk sensitivity figures presented in the "Interest rate sensitivity – banking book" table on the next page represent the effect of +1, ±100 and ±200-basis-point parallel moves in yield curves on present values of future cash flows, irrespective of accounting treatment. For some portfolios, the +1-basis-point sensitivity has been estimated by dividing the +100-basis-point sensitivity by 100. In the prevailing negative interest rate environment for the Swiss franc in particular, and to a lesser extent for the euro, interest rates for Wealth Management and Personal & Corporate Banking client transactions are generally being floored at non-negative levels. Accordingly, for the purposes of this disclosure table, downward moves of 100/200 basis points are floored to ensure that the resulting shocked interest rates do not turn negative. The flooring results in nonlinear sensitivity behavior.

The sensitivity of the banking book to rising rates increased year on year by negative CHF 3.4 million per basis point. This was mainly due to an increased negative sensitivity in Wealth Management Americas due to higher short-term US dollar market rates on its modeled deposit duration, resulting in a lower (i.e., less positive) sensitivity contribution from the liability side of its banking book. The sensitivity of the banking book to rising rates includes the interest rate sensitivities arising from debt investments classified as *Financial investments available-for-sale and* their associated hedges. The sensitivity of these positions (excluding hedges and excluding investments in funds accounted for as available-for-sale) to a 1-basis-point parallel increase in the yields of the respective instruments is approximately negative CHF 9 million, which would be recorded in *Other comprehensive income* if such change occurred.

The sensitivity of the banking book to rising rates also includes interest rate sensitivities arising from interest rate swaps designated in cash flow hedges. Fair value gains or losses associated with the effective portion of these swaps are recognized initially in *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 profit or loss. These swaps are predominantly denominated in US dollars, euros, British pounds and Swiss francs. As of 31 December 2015, the fair value of these interest rate swaps amounted to CHF 2.3 billion (positive replacement values) and CHF 0.2 billion (negative replacement values). The effect of a 1-basis-point increase of underlying LIBOR curves would have decreased equity by approximately CHF 22 million, excluding adjustments for tax. ▲▲▲

➔ Refer to "Note 15 Financial investments available-for-sale" in the "Consolidated financial statements" section of this report for more information

Audited | EDTF | Pillar 3 |

Interest rate sensitivity – banking book[1]

CHF million	31.12.15 –200 bps	–100 bps	+1 bp	+100 bps	+200 bps
CHF	**(33.9)**	**(33.9)**	**(0.2)**	**(15.5)**	**(29.1)**
EUR	**27.0**	**26.2**	**(0.3)**	**(29.7)**	**(55.5)**
GBP	**(165.5)**	**(42.4)**	**0.1**	**(0.8)**	**(15.6)**
USD	**838.7**	**438.8**	**(3.8)**	**(380.4)**	**(763.4)**
Other	**(1.2)**	**(2.1)**	**0.1**	**8.2**	**16.5**
Total effect on interest rate-sensitive banking book positions	**665.0**	**386.5**	**(4.1)**	**(418.3)**	**(847.0)**
of which: Wealth Management Americas	***806.5***	***440.1***	***(3.7)***	***(365.3)***	***(732.5)***
of which: Investment Bank	***28.9***	***18.0***	***(0.2)***	***(18.9)***	***(39.7)***
of which: CC – Group ALM[2]	***(168.6)***	***(73.6)***	***(0.2)***	***(19.2)***	***(43.7)***
of which: CC – Non-core and Legacy Portfolio	***(2.8)***	***1.2***	***(0.1)***	***(9.6)***	***(20.5)***

CHF million	31.12.14 –200 bps	–100 bps	+1 bp	+100 bps	+200 bps
CHF	(16.2)	(15.8)	(0.3)	(27.3)	(51.0)
EUR	72.1	66.0	(0.6)	(57.0)	(106.9)
GBP	(5.6)	(8.1)	0.2	23.0	46.3
USD	130.7	76.5	(0.2)	(21.0)	(52.8)
Other	1.8	(5.1)	0.2	17.7	36.0
Total effect on interest rate-sensitive banking book positions	182.7	113.5	(0.7)	(64.5)	(128.5)
of which: Wealth Management Americas	*181.7*	*129.9*	*(0.5)*	*(48.5)*	*(110.6)*
of which: Investment Bank	*53.8*	*34.2*	*(0.5)*	*(52.2)*	*(111.4)*
of which: CC – Core Functions[2]	*(37.3)*	*(44.3)*	*0.3*	*42.8*	*106.8*
of which: CC – Non-core and Legacy Portfolio	*(11.0)*	*(3.5)*	*(0.1)*	*(6.2)*	*(12.6)*

1 Does not include interest rate sensitivities for credit valuation adjustments on monoline credit protection, US and non-US reference-linked notes. 2 Following changes in the organization of the Corporate Center units as of 1 January 2015, amounts previously reported under CC – Core Functions are now reported under CC – Group ALM.

Risk, treasury and capital management

Other market risk exposures

Own credit

EDTF | We are exposed to changes in UBS's own credit which are reflected in the valuation of those financial liabilities designated at fair value, for which UBS's own credit risk would be considered by market participants. We also estimate debit valuation adjustments (DVA) to incorporate own credit in the valuation of derivatives. Changes in fair value due to changes in own credit are recognized in the income statement and therefore affect shareholders' equity and CET1 capital.

We will adopt the own credit presentation requirements of IFRS 9 in the first quarter of 2016. Under this aspect of 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 (OCI) and will not be reclassified to the Income statement. ▲

➔ **Refer to "Note 24 Fair value measurement" in the "Consolidated financial statements" section of this report for more information on own credit**

Structural foreign exchange risk

EDTF | On consolidation, assets and liabilities held in foreign operations are translated into Swiss francs at the closing foreign exchange rate on the balance sheet date, and items of income and expense are translated into Swiss francs at the average rate for the period. The resulting foreign exchange differences are recognized in *Other comprehensive income* and therefore affect shareholders' equity and CET1 capital.

Group ALM employs strategies to manage this foreign currency exposure, including matched funding of assets and liabilities and net investment hedging. ▲

➔ **Refer to the "Treasury management" section of this report for more information on our exposure to and management of structural foreign exchange risk**

Equity investments

Audited | EDTF | Under IFRS, equity investments not in the trading book may be classified as f*inancial investments classified as available-for-sale, Financial assets designated at fair value* or *Investments in associates.*

We make direct investments in a variety of entities and buy equity holdings in both listed and unlisted companies for a variety of purposes. This includes investments, such as exchange and clearing house memberships that are held to support our business activities. We may also make investments in funds that we manage in order to fund or "seed" them at inception, or to demonstrate that our interests concur with those of investors. We also buy, and are sometimes required by agreement to buy, securities and units from funds that we have sold to clients.

The fair value of equity investments tends to be influenced by factors specific to the individual investments. Equity investments are generally intended to be held for the medium or long term and may be subject to lockup agreements. For these reasons, we generally do not control these exposures using the market risk measures applied to trading activities. However, such equity investments are subject to a different range of controls, including pre-approval of new investments by business management and Risk Control, portfolio and concentration limits, and regular monitoring and reporting to senior management. They are also included in our Group-wide statistical and stress testing metrics which flow into our risk appetite framework.

As of 31 December 2015, we held equity investments totaling CHF 1.6 billion, of which CHF 0.6 billion were classified as *Financial investments available-for-sale,* and CHF 1.0 billion as *Investments in associates.* This was broadly unchanged from the prior year. ▲▲

➔ **Refer to "Note 15 Financial investments available-for-sale" and "Note 30 Interests in subsidiaries and other entities" in the "Consolidated financial statements" section of this report for more information**

Debt investments

Audited | EDTF | Debt investments classified as *Financial investments available-for-sale* are measured at fair value with changes in fair value recorded through *Equity,* and can broadly be categorized as money market instruments and debt securities primarily held for statutory, regulatory or liquidity reasons.

The risk control framework applied to debt instruments classified as *Financial investments available-for-sale* depends on the nature of the instruments and the purpose for which we hold them. Our exposures may be included in market risk limits or be subject to specific monitoring and interest rate sensitivity analysis. They are also included in our Group-wide statistical and stress testing metrics, which flow into our risk appetite framework.

Debt instruments classified as *Financial investments available-for-sale* had a fair value of CHF 61.9 billion as of 31 December 2015 compared with CHF 56.5 billion as of 31 December 2014. ▲▲

➔ **Refer to "Note 15 Financial investments available-for-sale" in the "Consolidated financial statements" section of this report for more information**

➔ **Refer to "Interest rate risk sensitivity to parallel shifts in yield curves" in this section for more information**

➔ **Refer to the "Treasury management" section of this report for more information**

Pension risk

EDTF | We provide a number of pension plans for past and current employees, some of which are classified as defined benefit pension plans under IFRS. These defined benefit plans can have a material effect on our IFRS equity and CET1 capital.

In order to meet the expected future benefit payments, the plans invest employee and employer contributions in various asset classes. The funded status of the plan is the difference between the fair value of these assets and the present value of the expected future benefit payments to plan members (the defined benefit obligation).

Under IFRS, a negative funded status (where the fair value of the assets is insufficient to meet the defined benefit obligation) is recognized on our balance sheet as a liability. It is also deducted from CET1 capital.

A positive funded status is recognized as an asset on the balance sheet, but it is capped at the economic benefit available to UBS, as described in "Note 1a item 24 Pension and other post-employment benefit plans" in the "Consolidated financial statements" section of this report. It cannot be recognized in CET1 capital.

At each balance sheet date, the fair value of the assets and the defined benefit obligation are remeasured, with changes in value recognized through other comprehensive income, subject to the aforementioned cap on a positive funded status.

Pension risk is the risk that the funded status of defined benefit plans might decrease, negatively affecting our IFRS equity and/or our CET1 capital. This can arise either from a fall in the plan assets' value or in the investment returns, an increase in defined benefit obligations, or a combination of these.

Important risk factors affecting the fair value of the plan assets are, among others, equity market returns, interest rates, bond yields, and real estate prices.

Important risk factors affecting the present value of the expected future benefit payments include high-grade bonds yields, interest rates, inflation rates and life expectancy.

Pension risk is included in our Group-wide statistical and stress testing metrics that flow into our risk appetite framework. The potential effects are thus captured in the calculation of our post-stress fully applied CET1 capital ratio. ▲

➔ **Refer to "Note 28 Pension and other post-employment benefit plans" in the "Consolidated financial statements" section of this report for more information on defined benefit plans**

➔ **Refer to "Stress testing" in the "Risk management and control" section of this report for more information on our stress testing framework**

➔ **Refer to "Consideration of stress scenarios" in the "Capital management" section of this report for more information on our post-stress fully applied CET1 capital ratio**

➔ **Refer to "Fluctuation in foreign exchange rates and continuing low or negative interest rates may have a detrimental effect on our capital strength, our liquidity and funding position, and our profitability" and "Our stated capital returns objective is based, in part, on capital ratios that are subject to regulatory change and may fluctuate significantly" in the "Risk factors" section of this report for more information**

UBS own share exposure

EDTF | We hold our own shares primarily to hedge employee share and option participation plans. A smaller number are held by the Investment Bank in connection with market-making and hedging activities. ▲

➔ **Refer to "Holding of UBS Group AG shares" in the "Capital management" section of this report for more information**

Country risk

Macroeconomic developments during the period

Continued weak commodity prices and the Federal Reserve rate hike put pressure on a number of key emerging markets. Our largest emerging markets exposure is to China, where growth continued to be moderate in 2015, and financial markets experienced episodes of extreme volatility. Eurozone concerns and European Central Bank policy included the prospect of a Greek exit from the common currency, and a migrant/refugee crisis driven by turmoil in the Middle East and in North Africa.

Country risk framework

Country risk includes all country-specific events that occur within a sovereign's jurisdiction and may lead to an impairment of UBS's exposures. Country risk can take the form of sovereign risk, which refers to the ability and willingness of a government to honor its financial commitments; transfer risk, which would arise if an issuer or counterparty could not acquire foreign currencies following a moratorium of a central bank on foreign exchange transfers; or "other" country risk. "Other" country risk may manifest itself through increased and multiple counterparty and issuer default risk (systemic risk) on the one hand, and by events that may affect the standing of a country (e.g., political stability, institutional and legal framework) on the other hand. We have a well-established risk control framework, through which we assess the risk profile of all countries where we have exposure.

EDTF | We attribute to each foreign country a sovereign rating, which expresses the probability of the sovereign defaulting on its own financial obligations in foreign currency. Our ratings are expressed by statistically derived default probabilities as described in the "Probability of default" section. Based on this internal analysis we also define the probability of a transfer event occurring and establish rules as to how the aspects of "other" country risk should be incorporated into the analysis of the counterparty rating of entities that are domiciled in the respective country.

Our risk exposure to foreign countries considers the credit ratings assigned to those countries. A country risk ceiling (i.e., maximum aggregate exposure) applies to our exposures to counterparties or issuers of securities and financial investments in the respective foreign country. We may limit the extension of credit, transactions in traded products or positions in securities based on a country ceiling, even if our exposure to a counterparty is otherwise acceptable.

For internal measurement and control of country risk, we also consider the financial impact of market disruptions arising prior to, during, and following a country crisis. These may take the form of a severe deterioration in a country's debt, equity or other asset markets, or a sharp depreciation of the currency. We use stress testing to assess the potential financial impact of a severe country and/or sovereign crisis. This involves the development of plausible stress scenarios for combined stress testing and the identification of countries that may potentially be subject to a crisis event, determining potential losses and making assumptions about recovery rates depending on the types of credit transactions involved and their economic importance to the affected countries.

Our exposures to market risks are also subject to regular stress tests that cover major global scenarios, which are used for combined stress testing as well, whereby we apply market shock factors to equity indices, interest and currency rates in all relevant countries and consider the potential liquidity of the instruments. ▲

Country risk exposure

Country risk exposure measure

EDTF | The presentation of country risk follows our internal risk view, whereby the basis for measurement of exposures depends on the product category into which we have classified our exposures. In addition to the classification of exposures into banking products and traded products as defined in the "Credit risk profile of the Group – Internal risk view" section, we classify within trading inventory, issuer risk on securities such as bonds and equities, as well as the risk relating to the underlying reference assets for derivative positions, including those linked to credit protection we buy or sell, loan or security underwriting commitments pending distribution and single-stock margin loans for syndication.

As we manage the trading inventory on a net basis, we net the value of long positions against short positions with the same underlying issuer. Net exposures are, however, floored at zero per issuer in the figures presented. We therefore do not recognize the potentially offsetting benefit of certain hedges and short positions across issuers.

We do not recognize any expected recovery values when reporting country exposures as *Exposure before hedges* except for the risk-reducing effects of master netting agreements and collateral held in the form of either cash or portfolios of diversified marketable securities, which we deduct from the basic positive exposure values. Within banking products and traded products, the risk-reducing effect of any credit protection is taken into account on a notional basis when determining the *Net of hedges* exposures. ▲

Country risk exposure allocation

EDTF | In general, exposures are shown against the country of domicile of the contractual counterparty or the issuer of the security. For some counterparties whose economic substance in terms of assets or source of revenues is primarily located in a different country, the exposure is allocated to the risk domicile of that country. ▲

This is the case, for example, with legal entities incorporated in financial offshore centers, which have their main assets and revenue streams outside the country of domicile. The same principle applies to exposures for which we hold third-party guarantees or collateral, where we report the exposure against the country of domicile of either the guarantor or the issuer of the underlying security, or against the country where pledged physical assets are located.

We apply a specific approach for banking products exposures to branches of financial institutions which are located in a country other than that of the domicile of the legal entity. In such cases, exposures are recorded in full against the country of domicile of the counterparty and additionally in full against the country in which the branch is located.

In the case of derivatives, we show the counterparty risk associated with the positive replacement value against the country of domicile of the counterparty (presented within traded products). In addition, the risk associated with the instantaneous fall in value of the underlying reference asset to zero (assuming no recovery) is shown against the country of domicile of the issuer of the reference asset (presented within trading inventory). This approach ensures that we capture both the counterparty and, where applicable, issuer elements of risk arising from derivatives and applies comprehensively for all derivatives, including single-name credit default swaps (CDSs) and other credit derivatives.

As a basic example: if CDS protection for a notional value of 100 bought from a counterparty domiciled in country X referencing debt of an issuer domiciled in country Y has a positive replacement value of 20, we record (i) the fair value of the CDS (20) against country X (within traded products) and (ii) the hedge benefit (notional minus fair value) of the CDS (100 – 20 = 80) against country Y (within trading inventory). In the example of protection bought, the 80 hedge benefit would offset any exposure arising from securities held and issued by the same entity as the reference asset, floored at zero per issuer. In the case of protection sold, this would be reflected as a risk exposure of 80 in addition to any exposure arising from securities held and issued by the same entity as the reference asset. In the case of derivatives referencing a basket of assets, the issuer risk against each reference entity is calculated as the expected change in fair value of the derivative given an instantaneous fall in value to zero of the corresponding reference asset (or assets) issued by that entity. Exposures are then aggregated by country across issuers, floored at zero per issuer.

Exposures to selected eurozone countries

EDTF | Our exposure to peripheral European countries remains limited, but we nevertheless remain watchful regarding the potential broader implications of adverse developments in the eurozone. As noted in the "Stress testing" section, a eurozone crisis remains a core part of the new binding Global Recession scenario for Combined Stress Test purposes, making it central to the regular monitoring of risk exposure against the minimum capital, earnings and leverage ratio objectives in our risk appetite framework.

The "Exposures to selected eurozone countries" table on the next page provides an overview of our exposures to eurozone countries rated lower than AAA/Aaa by at least one of the major rating agencies as of 31 December 2015. The table shows an internal risk view of gross and net exposures split by sovereign, agencies and central banks, local governments, banks and other counterparties (including corporates, insurance companies and funds). Exposures to Andorra, Cyprus, Estonia, Latvia, Lithuania (after euro adoption on 1 January 2015), Malta, Monaco, Montenegro, San Marino, Slovakia and Slovenia are grouped in Other. ▲

Pillar 3 | CDSs are primarily bought and sold in relation to our trading businesses, but are also used to hedge parts of our risk exposure, including that related to select eurozone countries. As of 31 December 2015, and not taking into account the risk-reducing effect of master netting agreements, we had purchased approximately CHF 20 billion gross notional of single name CDS protection on issuers domiciled in Greece, Italy, Ireland, Portugal or Spain (GIIPS) and had sold CHF 19 billion gross notional of single-name CDS protection. On a net basis, taking into account the risk reducing effect of master netting agreements, this equates to approximately CHF 4 billion notional purchased and CHF 3 billion notional sold. More than 99% of gross protection purchased was from investment grade counterparties (based on our internal ratings) and on a collateralized basis. The vast majority of this was from financial institutions domiciled outside the eurozone. Approximately CHF 0.1 billion of the gross protection purchased was from counterparties domiciled in a GIIPS country with just over CHF 40 million from counterparties domiciled in the same country as the reference entity. ▲

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Exposures to selected eurozone countries

CHF million	Total		Banking products (loans, guarantees, loan commitments)			Traded products (counterparty risk from derivatives and securities financing) after master netting agreements and net of collateral		Trading inventory (securities and potential benefits / remaining exposure from derivatives)
31.12.15		Net of hedges[1]	Exposure before hedges	Net of hedges[1]	*of which: unfunded*	Exposure before hedges	Net of hedges	Net long per issuer
France	**6,331**	**6,004**	**1,284**	**963**	***469***	**1,399**	**1,392**	**3,649**
Sovereign, agencies and central bank	3,583	3,577	14	14		45	38	3,524
Local governments	60	60				57	57	2
Banks	365	365	137	137		209	209	19
Other[2]	2,323	2,003	1,132	812		1,087	1,087	103
Netherlands	**6,650**	**5,895**	**1,522**	**1,041**	***355***	**1,207**	**933**	**3,921**
Sovereign, agencies and central bank	3,799	3,799	7	7		1	1	3,791
Local governments								
Banks	562	562	35	35		474	474	53
Other[2]	2,289	1,534	1,479	998		732	458	78
Spain	**1,621**	**1,290**	**570**	**239**	***216***	**377**	**377**	**674**
Sovereign, agencies and central bank	39	39	1	1				38
Local governments	1	1						1
Banks	463	463	55	55		347	347	61
Other[2]	1,119	788	514	183		30	30	574
Italy	**2,086**	**1,605**	**1,687**	**1,263**	***805***	**350**	**293**	**48**
Sovereign, agencies and central bank	62	5				62	4	1
Local governments	79	79				77	77	2
Banks	415	415	370	370		32	32	13
Other[2]	1,530	1,106	1,317	893		180	180	33
Austria	**1,518**	**1,410**	**52**	**52**	***23***	**250**	**143**	**1,215**
Sovereign, agencies and central bank	1,202	1,094				108	0	1,094
Local governments	0	0						0
Banks	289	289	31	31		140	140	118
Other[2]	27	27	21	21		3	3	3
Ireland[3]	**1,287**	**1,287**	**294**	**294**	***174***	**910**	**910**	**83**
Sovereign, agencies and central bank	18	18						18
Local governments								
Banks	35	35	16	16		9	9	11
Other[2]	1,233	1,233	279	279		901	901	54
Finland	**1,091**	**1,058**	**91**	**58**	***2***	**117**	**117**	**883**
Sovereign, agencies and central bank	622	622						622
Local governments	22	22				9	9	12
Banks	329	329	2	2		84	84	243
Other[2]	119	86	89	56		23	23	6
Belgium	**514**	**514**	**199**	**199**	***5***	**116**	**116**	**199**
Sovereign, agencies and central bank	218	218				35	35	183
Local governments	11	11						11
Banks	188	188	178	178		9	9	1
Other[2]	97	97	21	21		72	72	4
Portugal	**138**	**73**	**119**	**53**	***52***	**0**	**0**	**19**
Sovereign, agencies and central bank	1	1						1
Local governments								
Banks	11	11	10	10		0	0	1
Other[2]	127	62	109	44		0	0	18
Greece	**9**	**9**	**5**	**5**	***0***	**0**	**0**	**4**
Sovereign, agencies and central bank	1	1						1
Local governments								
Banks	4	4	4	4		0	0	0
Other[2]	4	4	0	0				3
Other[4]	**123**	**123**	**105**	**105**	***8***	**3**	**3**	**15**

1 Not deducted from the "Net of hedges" exposures are total allowances and provisions for credit losses of CHF 52 million (of which: Malta CHF 37 million, Ireland CHF 6 million and France CHF 5 million). 2 Includes corporates, insurance companies and funds. 3 The majority of the Ireland exposure relates to funds and foreign bank subsidiaries. 4 Represents aggregate exposures to Andorra, Cyprus, Estonia, Latvia, Lithuania, Malta, Monaco, Montenegro, San Marino, Slovakia and Slovenia.

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Exposure from single-name credit default swaps referencing Greece, Italy, Ireland, Portugal or Spain (GIIPS)

CHF million	Protection bought		*of which: counterparty domiciled in GIIPS country*		*of which: counterparty domicile is the same as the reference entity domicile*		Protection sold		Net position (after application of counterparty master netting agreements)			
31.12.15	Notional	RV	Notional	RV	Notional	RV	Notional	RV	Buy notional	Sell notional	PRV	NRV
Greece	**82**	**(1)**	**0**	**0**	**0**	**0**	**(129)**	**(1)**	**0**	**(47)**	**1**	**(4)**
Italy	**15,163**	**(22)**	**52**	**(1)**	**30**	**0**	**(14,731)**	**(63)**	**2,163**	**(1,730)**	**59**	**(144)**
Ireland	**909**	**(21)**	**11**	**0**	**0**	**0**	**(865)**	**25**	**443**	**(399)**	**11**	**(7)**
Portugal	**718**	**(16)**	**0**	**0**	**0**	**0**	**(741)**	**13**	**260**	**(283)**	**10**	**(13)**
Spain	**3,008**	**306**	**70**	**(1)**	**10**	**0**	**(2,313)**	**29**	**1,473**	**(778)**	**385**	**(49)**
Total	**19,879**	**245**	**133**	**(1)**	**40**	**0**	**(18,779)**	**3**	**4,338**	**(3,237)**	**466**	**(217)**

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Pillar 3 | Holding CDSs for credit default protection does not necessarily protect the buyer of protection against losses, as the contracts will only pay out under certain scenarios. The effectiveness of our CDS protection as a hedge of default risk is influenced by a number of factors, including the contractual terms under which the CDS was written. Generally, only the occurrence of a credit event as defined by the CDS terms (which may include among other events, failure to pay, restructuring or bankruptcy) results in a payment under the purchased credit protection contracts. For CDS contracts on sovereign obligations, repudiation can also be deemed as a default event. The determination as to whether a credit event has occurred is made by the relevant International Swaps and Derivatives Association (ISDA) determination committees (comprised of various ISDA member firms) based on the terms of the CDS and the facts and circumstances surrounding the event. ▲

Exposure to emerging market countries

The "Emerging markets net exposure by major geographical region and product type" table on the following page shows the five largest emerging market country exposures in each major geographical area by product type as of 31 December 2015 compared with 31 December 2014. Based on the sovereign rating categories, as of 31 December 2015, 83% of our emerging market country exposure was rated investment grade compared with 94% as of 31 December 2014.

Our direct net exposure to Russia was CHF 0.7 billion as of 31 December 2015, approximately half of which related to margin loans to Russian borrowers which are secured by global depository receipts issued by Russian companies. Our direct net exposure to China was CHF 6.6 billion as of 31 December 2015, approximately 80% of which related to the trading inventory category, which is measured at fair value. Of that trading inventory exposure, the majority is a result of managing our Qualified Foreign Institutional Investor (QFII) quota through short-term fund placements.

EDTF |

Emerging markets net exposure[1] by internal UBS country rating category

CHF million	**31.12.15**	31.12.14
Investment grade	**14,274**	18,993
Sub-investment grade	**2,906**	1,107
Total	**17,180**	20,101

1 Net of credit hedges (for banking products and for traded products); net long per issuer (for trading inventory). Total allowances and provisions of CHF 91 million are not deducted (31 December 2014: CHF 83 million).

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EDTF |

Emerging market net exposures by major geographical region and product type

CHF million	Total		Banking products (loans, guarantees, loan commitments)		Traded products (counterparty risk from derivatives and securities financing) after master netting agreements and net of collateral		Trading inventory (securities and potential benefits / remaining exposure from derivatives)	
	Net of hedges[1]		Net of hedges[1]		Net of hedges		Net long per issuer	
	31.12.15	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14	**31.12.15**	31.12.14
Emerging America	**1,304**	1,850	**437**	537	**396**	548	**472**	765
Brazil	**953**	1,250	**213**	227	**363**	400	**377**	623
Mexico	**168**	300	**111**	165	**21**	66	**35**	68
Colombia	**59**	94	**46**	49	**9**	27	**3**	19
Argentina	**28**	40	**21**	23			**7**	17
Venezuela	**23**	20	**0**	0			**23**	20
Other	**73**	145	**44**	73	**3**	54	**26**	19
Emerging Asia	**12,023**	13,807	**4,202**	4,151	**1,134**	2,730	**6,687**	6,927
China	**6,603**	6,982	**1,020**	1,341	**160**	378	**5,423**	5,263
Hong Kong	**1,224**	2,000	**864**	574	**163**	1,052	**196**	373
South Korea	**1,223**	1,680	**554**	323	**405**	713	**264**	643
India	**1,223**	1,227	**988**	949	**180**	235	**56**	43
Taiwan	**712**	923	**184**	229	**199**	266	**330**	428
Other	**1,038**	996	**593**	734	**27**	85	**418**	177
Emerging Europe	**1,611**	1,728	**962**	922	**64**	77	**585**	729
Russia	**697**	886	**217**	317	**29**	28	**451**	541
Turkey	**472**	374	**409**	276	**15**	27	**48**	70
Azerbaijan	**135**	153	**122**	147	**13**	5		1
Croatia	**66**	11	**66**	10			**0**	1
Hungary	**43**	41	**1**	1	**0**	8	**41**	32
Other	**198**	264	**147**	171	**7**	9	**44**	84
Middle East and Africa	**2,242**	2,716	**861**	1,012	**914**	1,093	**467**	611
South Africa	**678**	470	**79**	80	**240**	52	**359**	339
Saudi Arabia	**399**	576	**169**	148	**231**	428		0
Kuwait	**382**	445	**16**	12	**365**	433		0
United Arab Emirates	**243**	464	**176**	247	**61**	122	**5**	95
Israel	**172**	203	**87**	48	**5**	13	**80**	142
Other	**369**	559	**334**	479	**11**	45	**24**	35
Total	**17,180**	20,101	**6,461**	6,622	**2,508**	4,447	**8,211**	9,032

1 Not deducted are total allowances and provisions for credit losses of CHF 91 million (31 December 2014: CHF 83 million).

Operational risk

Compliance and operational risk control developments during the period

EDTF | In 2015, we concluded our program to combine Compliance and Operational Risk Control (C&ORC) in order to manage the Group's compliance, conduct and operational risks in a fully integrated manner. This transformation has resulted in a strengthened control environment, the introduction of globally consistent processes, substantial enhancements to our detective control capabilities, and an operating model which is well-defined, agile and aligned to the Group's strategy and evolving regulatory requirements. Additionally, as an integrated function, we are able to give a broader, more consistent view of the operational risks we face and provide more coherent challenge to the business. Throughout 2015, we took a number of concrete steps to strengthen the management of operational risk, including implementation of a common risk assessment methodology which enables better data analytics and comparisons to be made across and between businesses. We also took on a broader scope of risk assessments led by the business divisions, and strengthened the control environment through review of our key controls across the most critical risk themes.

While we have completed many enhancements during the Compliance and Operational Risk Control integration, best practices across the industry are continually evolving, new risks continue to emerge and threats continue to change. Our strategy for 2016 will, therefore, focus on continued development of our core capabilities in the prevention of financial crime, monitoring and surveillance, and conduct risk, while strengthening our control frameworks for cyber threats, vendor management and transformational change. Moreover, we will continue to work proactively to identify and tackle emerging risks, while refining the operating model to increase effectiveness and deliver efficiency.

The development of our monitoring and surveillance capabilities continues with a focus on more powerful and versatile Group-wide analytics systems and centralized services. The benefits of our automated monitoring capabilities for electronic and audio communications and sophisticated client, trade and cross-border surveillance are starting to become evident. They have allowed us to swiftly identify relevant policy breaches and suspicious patterns of activity. Continuing focus in this area remains vital as regulatory expectations increase and technology capability continues to develop. Our geographical and business coverage will be increased and we will enhance our analytical capabilities to ensure best use of data and optimized delivery of insights.

In 2015, we strengthened our operational resilience function with the integration of the Group Technology Risk organization into C&ORC. Increasing the operational resilience of the firm will remain a key focus for 2016 with continued enhancements to our vendor framework, cyber defense and transformational change risk management framework.

We continue to invest significantly in dedicated security programs to strengthen our cyber defense. The threats faced across the financial industry are broadly similar and include data theft committed increasingly by criminal organizations, disruption of service, such as distributed denial of service attacks, and cyber fraud, often through business email compromise and phishing attacks. We have recently appointed a Head of Cyber Risk in order to effectively address the challenges posed by the dynamic external environment and our own technology innovation. The role focuses on the enterprise governance for cyber-related activities, and includes regular assessments of cyber threat intelligence, analysis of the effectiveness of our controls, and progress on improving our cyber defense capability. To further enhance our resilience against one of the most critical, constantly evolving risks facing the broader industry, we continue to strengthen our cyber response framework, comprising "Analyze," "Protect," "Detect" and "Respond/Recover" capabilities, through a dedicated program. The cyber response framework also includes assessments of our vendors' capabilities.

Ensuring that the financial crime risk control environment remains effective and is constantly updated to reflect new threats is critical to protecting client and firm assets. This is particularly important given the current volatility in the geopolitical and associated sanctions environment, which continues to reinforce the importance of a robust, sophisticated and agile anti-financial crime framework. The completion of a capability enhancement program in 2015 allowed us to make significant progress, for example through the introduction of enhanced payments monitoring capability. We continue to develop our core systems for financial crime prevention and protection against fraud, including an enhanced global anti-money laundering risk assessment and control framework, new capabilities in the monitoring of business relationships and improved detection of potential bribery and corruption risks. Given the rapidly changing and developing geopolitical environment, we will need to further integrate these solutions and adapt their ability to detect and respond to changes in clients' behavior and risk characteristics. The ongoing changes in the geopolitical environment also mean that we continue to closely monitor the international sanctions regimes, and ensure that our anti-terrorist financing controls are as robust as possible.

Suitability risk, quality of advice and price transparency will remain areas of heightened focus for the financial industry, as low interest rates and major legislative change programs, such as the Markets in Financial Instruments Directive II in the EU, continue. These developments are in addition to intensified regulatory interest in product tailoring and cross-divisional service offerings. We continue to enhance the governance and controls around our suitability and product risk taxonomies to sustainably support the Group's growth strategy and product innovation. Our suitability and product control frameworks are designed to set clear standards in line with applicable laws and client requirements effectively communicate our suitability strategy and continuously monitor and enforce adherence to suitability standards and controls.

Cross-border risk remains an area of regulatory attention for global financial institutions, with a strong focus on fiscal transparency and increased legislation, such as the automatic exchange of information. We continue to adapt our cross-border control framework in response to regulatory developments and to facilitate compliant client-driven cross-border business.

We have substantially completed a program of remediation work that has focused on further strengthening our front-office processes and controls within the FX business. In addition, our systems have been enhanced to better segregate sensitive information, and our monitoring and surveillance capability was significantly enhanced so that we can more proactively detect unusual patterns of employee behavior and improper business and employee practices. This program also meets the specific undertakings made to the U.S. Commodity Futures Trading Commission, the Connecticut Department of Banking, the U.S. Department of Justice, the UK Financial Conduct Authority, the Swiss Financial Market Supervisory Authority (FINMA) and the Federal Reserve Bank of New York, as part of the resolution of the FX matter. Where applicable we are applying similar control and monitoring enhancements across our other trading businesses including the Rates and Credit, Equities and Non-Core and Legacy businesses.

Achieving the fairest outcomes for our clients and safeguarding market integrity are of critical importance to the firm. The management of conduct risks has been central to our remediation activities and we have implemented a firm-wide conduct risk framework that is embedded into the existing operational risk framework. This framework includes conduct-related management information which is reviewed at business and regional governance forums, providing metrics on employee conduct, clients and markets, with employee conduct a central consideration in the annual compensation process. We also significantly strengthened our oversight controls regarding personal account dealing for our personnel by centralizing all accounts either within UBS, or into a number of defined brokers.

In addition to the developments and areas of key focus noted above, we have made further progress in supplementing our risk assessment processes with a forward-looking view of the broader risk environment in which UBS operates. Consideration of key drivers of change such as the UBS strategy, the macroeconomic outlook, technical innovation and regulatory developments allow us to refine our global risk assessment and planning activities. In acknowledgement of the dynamic industry and the environment in which we operate, we will continue to refine and strengthen our risk framework to ensure it is agile and aligned with the Group's strategy, is responsive to regulatory requirements and supports forward-looking risk identification.

We are continuously enhancing our stakeholder engagement as an important complement to our risk assessment processes. In 2015, we reinforced and clarified the mission and mandate for C&ORC through the establishment of a comprehensive service delivery and operating model, with clear distinction between the risk responsibilities of the control functions (second line of defense) and the business functions (first line of defense). Work to increase the effectiveness of challenge from the second line of defense and support the first line of defense in their risk management responsibilities will continue throughout 2016. Part of this strategy is to transform the way we respond to enquiries, manage approvals and handle incidents leveraging firm-wide standard solutions. ▲

Operational risk framework

EDTF | Pillar 3 | Operational risk is an inherent part of our business. Losses can result from inadequate or flawed internal processes, decisions and systems, or from external events. We provide a framework that supports the identification and assessment of material operational risks and their potential concentrations, in order to achieve an appropriate balance between risk and return.

The business division Presidents and the Corporate Center function heads are ultimately accountable for the effectiveness of operational risk management and for the implementation of the operational risk framework. Management in all functions is responsible for ensuring an appropriate operational risk management environment, including the establishment and maintenance of robust internal controls, effective supervision and a strong risk culture.

C&ORC provides an independent and objective view of the adequacy of operational risk management across the Group. It is governed by the C&ORC Management Committee, which is chaired by the Global Head of Compliance & Operational Risk Control, who reports to the Group Chief Risk Officer and is a member of the Risk Executive Committee.

The operational risk framework describes general requirements for managing and controlling operational risk at UBS. It is built on four main pillars:

1. classification of inherent risks through the operational risk taxonomy;
2. assessment of the design and operating effectiveness of controls through the internal control assessment process;
3. assessment of residual risk through the operational and business risk assessment processes, and
4. remediation to address identified deficiencies which are outside accepted levels of residual risk.

The operational risk taxonomy provides a clear and logical classification of our inherent operational risks, across all business divisions. Throughout the organizational hierarchy, a level of risk tolerance must be agreed for each of the taxonomy categories, together with a minimum set of internal controls and associated performance thresholds considered necessary to keep risk exposure within acceptable levels.

All functions within our firm are required to perform a semi-annual internal control assessment process whereby they assess and evidence the design and operating effectiveness of their key controls. This also forms the basis for the assessment and testing of the controls which oversee financial reporting as required by the Sarbanes-Oxley Act, section 404 (SOX 404). The framework facilitates the identification of SOX 404-relevant controls for independent testing, functional assessments, management affirmation and where necessary, remediation tracking. UBS employs a consistent global framework to assess the aggregated impact of control deficiencies and the adequacy of remediation efforts.

The UBS risk assessment approach covers all business activities and internal as well as external factors posing a threat to UBS Group. Aggregated with any weaknesses in the control environment, the risk assessment articulates the current operational risk exposure against agreed risk tolerance levels.

Significant control deficiencies that surface during the internal control and risk assessment processes must be reported in the operational risk inventory, and sustainable remediation must be defined and executed. All significant issues are assigned to owners at the senior management level and must be reflected in the respective manager's annual performance measurement and management objectives. To assist with prioritization of all known operational risk issues, irrespective of origin, a common rating methodology is adopted by all internal control functions and both internal and external audit. Group Internal Audit conducts an issue assurance process after a risk issue has been closed, in order to maintain rigorous management discipline in the sustainable mitigation and control of operational risk issues.

Responsibility for the front-to-back control environment and risk management is held by the Chief Operating Officers and supported by our transparent reporting.

Risk and behaviors remain embedded in our performance and compensation considerations, and as a firm we continue to deliver employee behavioral initiatives such as the "Principles of Good Supervision," and mandatory compliance and risk training. ▲▲

Advanced measurement approach model

EDTF | Pillar 3 | The operational risk framework detailed above is aligned to and underpins the calculation of regulatory capital, which in turn allows us to quantify operational risk and set effective management incentives.

We measure operational risk exposure and calculate operational risk regulatory capital by using the advanced measurement approach (AMA) in accordance with FINMA requirements.

For regulated subsidiaries, the basic indicator or standardized approaches are adopted as agreed with local regulators. Regulatory requirements are currently leading to the implementation of AMA models for specific UBS entities. The operational risk regulatory capital requirements for the new banking subsidiary of UBS AG in Switzerland were determined and finalized in 2015. The design of the AMA model, which has been tailored to meet the new subsidiary's operational risk exposure, has been aligned with the Group model from a methodological and calibration process perspective, with adaptations where necessary. Following finalization, the output was presented to FINMA and approved for use.

The AMA model consists of a backward-looking historical and a forward-looking scenario component. The historical component takes a retrospective view based on our history of operational risk losses since January 2002, excluding extreme losses incurred by UBS, which are captured within the scenario component. The key assumption within the historical component is that past events form a reasonable proxy for future events. A distribution of aggregated losses over one year is derived by modeling severities and frequencies separately and then combining them. This is referred to as a loss distribution approach and is used to project future total losses based on historical experience and to determine the expected loss portion of our capital requirement.

The scenario component takes a forward-looking view of potential operational losses that may occur, taking into account the operational risk issues facing the Group. The aim is to determine a reasonable estimate of unexpected or tail loss exposure (corresponding to a low-frequency/high-severity event). At this point, 20 AMA Units of Measures (UoM) are utilized by the current model and all are aligned to the operational risk framework taxonomy.

For each of the models UoM, three frequency/severity pairs are defined, representing the base, stress and worst case. Calibration and adjustments to the scenario component parameters are based on internal extreme losses, loss data from peer banks, outputs of the integrated risk assessments, including consideration of the business and internal control environment, as well as extensive annual verification by internal subject matter experts. The chart below provides a high-level overview of the model components and their respective inputs into the calculation.

The AMA model adds the sampled annual losses from the historical and the scenario component to derive the regulatory capital figure which equals the 99.9% quantile of the overall annual operational risk loss distribution.

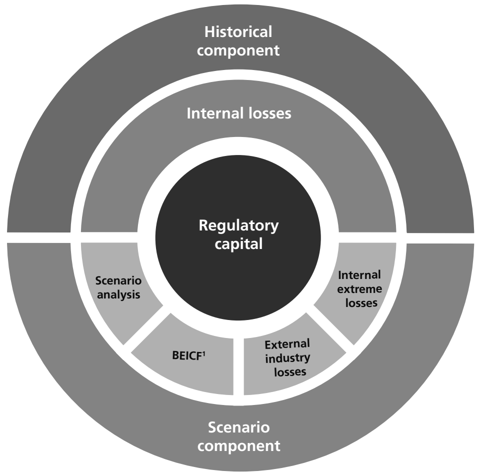
Currently, we do not reflect mitigation through insurance or any other risk transfer mechanism in our AMA model.

In 2015, the Group AMA model design, methodology and calibration were subject to significant redevelopment. We submitted all revisions to FINMA with the intention of implementing them in 2016 following regulatory approval. The changes focus on model construct, initial calibration, business environment and internal control factors, diversification, a litigation specific component and combining internal/external losses.

A FINMA increment to our AMA-based operational risk-related RWA (OR RWA) in relation to known or unknown litigation, compliance and other operational risk matters took effect on 1 October 2013 and continued to be applied throughout 2015. As mutually agreed between UBS and FINMA, the incremental OR RWA was subject to recalculations based on supplemental analysis performed each quarter. The incremental OR RWA calculated based upon this supplemental analysis as of 31 December 2015 was CHF 13.3 billion, a decrease of CHF 4.2 billion compared with 31 December 2014. In 2016, the aim is to replace the incremental OR RWA and have the total OR RWA calculated by the upgraded AMA. Stress litigation assessments will be an inherent part of the upgraded AMA.

We continued to allocate operational risk regulatory capital to the business divisions and Corporate Center based on historical losses. ▲▲

Pillar 3 | AMA model components and inputs



1 Business environment and internal control factors. ▲

AMA model confirmation

EDTF | Pillar 3 | The Group AMA model is subject to an annual quantitative and qualitative review to ensure that model parameters are plausible and reflect the developing operational risk profile of the firm. This review is independently verified by Quantitative Risk Control and supplemented with additional sensitivity and benchmarking analysis. ▲▲

AMA future developments

In 2015, the Basel Committee on Banking Supervision announced that significant changes regarding the calculation of operational risk capital were being drafted. In March 2016, a consultation document was issued that proposed replacing the AMA with a Standardized Measurement Approach. UBS is currently reviewing the proposals and will participate in the consultation process.

➔ **Refer to the "Capital management" section of this report for more information on the development of risk-weighted assets for operational risk**

➔ **Refer to "Risk measurement" in this section for more information on our approach to model confirmation procedures**

➔ **Refer to "If we are unable to maintain our capital strength, this may adversely affect our ability to execute our strategy, client franchise and competitive position" in the "Risk factors" section of this report for more information**

APPENDIX 5 — OPERATING ENVIRONMENT AND STRATEGY

The information in this Appendix 5 describes the operating environment and strategy of UBS AG and references herein to "**UBS**" or the "**Group**" are to UBS AG and its subsidiaries.

The information in this Appendix 5 has been extracted from our Annual Report 2015 as at and for the year ended 31 December 2015. References to page numbers in this Appendix 5 are to pages of such document. The page numbers of such document appear on the bottom left or right hand side of the pages in this Appendix 5.

Risk factors

EDTF | Certain risks, including those described below, may impact our ability to execute our strategy or otherwise affect our business activities, financial condition, results of operations and prospects. Because the business of a broad-based international financial services firm such as UBS is inherently exposed to risks that 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 impact our ability to execute our strategy. In addition, these risks could affect our business activities, financial condition, results of operations and prospects. The order of presentation of the risk factors below does not indicate the likelihood of their occurrence or the potential magnitude of their consequences. ▲

Fluctuation in foreign exchange rates and continuing low or negative interest rates may have a detrimental effect on our capital strength, our liquidity and funding position, and our profitability

EDTF | 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 other currencies, particularly the US dollar, the euro and the British pound. Accordingly, changes in foreign exchange rates have an effect on our reported income and expenses, and on other reported figures such as other comprehensive income, invested assets, balance sheet assets, RWA and common equity tier 1 (CET1) capital. These effects may adversely affect our income, balance sheet, capital, leverage and liquidity ratios.

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. Moreover, a significant portion of the equity of our foreign operations is denominated in US dollars, euros, British pounds and other foreign currencies. Therefore, the appreciation of the Swiss franc against other currencies generally has an adverse effect on our earnings and equity, including on deferred tax assets, in the absence of any mitigating actions.

Similarly, a significant portion of our capital and RWA is denominated in US dollars, euros, British pounds and other foreign currencies. In order to hedge the 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 the capital and the capital ratio. As the proportion of RWA denominated in foreign 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 Basel III capital ratios.

On 15 January 2015, the Swiss National Bank (SNB) discontinued the minimum targeted exchange rate for the Swiss franc versus the euro, which had been in place since September 2011. At the same time, the SNB lowered the interest rate on deposit account balances at the SNB that exceed a given exemption threshold. These decisions resulted in an immediate, considerable strengthening of the Swiss franc against the euro, US dollar, British pound, Japanese yen and several other currencies, as well as a reduction in Swiss franc interest rates. The longer-term exchange rate of the Swiss franc against these other currencies is not certain, nor is the future direction of Swiss franc interest rates. Several other central banks have also adopted a negative-interest-rate policy.

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.

Moreover, our equity and capital are also affected by changes in interest rates. In particular, the calculation of our 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 an increase 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 CET1 capital.

A continuing low or negative interest rate environment would likely have an adverse effect on the repricing of UBS's assets and liabilities, and may significantly impact the net interest income generated from our wealth management businesses and Personal & Corporate Banking. The low or negative interest rate environment may affect customer behavior and hence the overall balance sheet structure. It may also affect the performance of our wealth management businesses, particularly given the associated cost of maintaining the high-quality liquid assets (HQLA) required to cover regulatory outflow assumptions embedded in the liquidity coverage ratio (LCR), which could be exacerbated by a reduction of the aforementioned SNB deposit exemption threshold for banks. Mitigating actions that we have taken, or may take in the future, to counteract these effects, such as the introduction of selective deposit fees or minimum lending rates, have resulted and could 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. ▲

Regulatory and legal changes may adversely affect our business and our ability to execute our strategic plans

EDTF | 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 have proposed, have adopted, or are actively considering, 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 the following:
– significantly higher regulatory capital requirements;
– changes in the definition and calculation of regulatory capital;
– changes in the calculation of RWA, including potential requirements to calculate or disclose RWA using less risk-sensitive standardized approaches rather than the internal models approach we currently use as required by the Swiss Financial Market Supervisory Authority (FINMA) under the Basel III framework;
– prudential adjustments to valuation of assets at the discretion of regulators;
– changes in the calculation of the leverage ratio and the introduction of a more demanding leverage ratio;
– new or significantly enhanced liquidity and stable funding requirements;
– requirements to maintain liquidity and capital in jurisdictions in which activities are conducted and booked;
– limitations on principal trading and other activities;
– new licensing, registration and compliance regimes;
– limitations on risk concentrations and maximum levels of risk;
– taxes and government levies that would effectively limit balance sheet growth or reduce the profitability of trading and other activities;
– cross-border market access restrictions;
– a variety of measures constraining, taxing or imposing additional requirements relating to compensation;
– adoption of new liquidation regimes intended to prioritize the preservation of systemically significant functions;
– 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
– requirements to adopt risk and other governance structures at a local jurisdiction or entity level.

Many of these measures have been adopted and their implementation has had a material effect on our business. Others will be implemented over the next several years; some are subject to legislative action or to further rulemaking by regulatory authorities before final implementation. As a result, 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. In addition, the cumulative effect of the changes in laws and regulations in Switzerland and the other jurisdictions in which we operate remains uncertain. The implementation of such measures and further, more restrictive changes may materially affect our business and our ability to execute our strategic plans, impose additional implementation, compliance and other costs on us, or require us to increase prices for, or cease offering of, certain services and products.

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. Moreover, the absence of a coordinated approach puts institutions headquartered in jurisdictions that impose relatively more stringent standards at a disadvantage. Switzerland has adopted capital and liquidity requirements for its major international banks that 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. ▲

➔ **Refer to the "Regulatory and legal developments" section of this report for more information**

Regulatory and legislative changes in Switzerland

EDTF | Swiss regulatory changes with regards to capital, liquidity and other areas have generally proceeded more quickly than those in other major jurisdictions. FINMA, the SNB and the Swiss Federal Council are implementing requirements that are significantly more onerous and restrictive for major Swiss banks, such as UBS, than those adopted or proposed by regulatory authorities in other major global financial centers.

Capital and TBTF regulation: A revised banking ordinance and capital adequacy ordinance implementing the Basel III capital standards and the Swiss TBTF law became effective on 1 January 2013. As a systemically relevant Swiss bank, we are subject to base capital requirements, as well as a progressive buffer that scales with our total exposure (a metric that is based on our balance sheet size) and market share in Switzerland. In 2015, the Swiss Federal Council published proposed revisions to the Swiss TBTF framework that would significantly increase our capital requirements based on RWA and impose a significantly higher leverage ratio requirement. In addition, the proposed revisions to the TBTF ordinance would impose a total loss absorbing capital requirement. Moreover, Swiss governmental authorities have, and have exercised, the authority to impose an additional countercyclical buffer capital requirement and have further required banks using the internal ratings-based (IRB) approach to use a bank-specific multiplier when calculating RWA for Swiss residential mortgages, income-producing residential and commercial real estate (IPRE) and credit exposures to corporates for the Investment Bank. In addition, UBS has mutually agreed with FINMA to an incremental operational capital requirement to be held against litigation, regulatory and similar matters and other contingent liabilities, which added CHF 13.3 billion to our RWA as of 31 December 2015. There is no assurance that we will not be subject to increases in capital requirements in the future, from the imposition of further add-ons in the calculation of RWA or other components of minimum capital requirements.

Switzerland has implemented new Basel Committee on Banking Supervision (BCBS) requirements for the mandatory Pillar 3 disclosures of RWA based on a harmonized approach, and we expect it will implement, when finalized, the BCBS revisions relating to (i) modifications of the internal ratings-based approach for credit risk, (ii) the fundamental review of the trading book, including a standardized approach, for market risk, (iii) the standardized approach for credit risk, (iv) the introduction of a floor based on the standardized approach, and (v) the calculation of operational risks. The revisions to the BCBS standards are likely to increase our credit risk and market risk RWA and, based on initial analysis, also our operational risk RWA. Implementation of these revisions would result in significant implementation costs to us. In addition, a floor based on a standardized approach would likely be less risk sensitive and may result in significantly higher RWA.

Liquidity and funding: As a Swiss SRB, we are required to maintain an LCR of high-quality liquid assets to estimated stressed short-term net cash outflows, and we will also be required to maintain a net stable funding ratio (NSFR). Both of these 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.

These requirements, together with liquidity and funding requirements imposed by other jurisdictions in which we operate, oblige us to maintain substantially higher levels of overall liquidity than was previously the case, or limit our efforts to optimize interest expense. Increased capital, funding and liquidity requirements make certain lines of business less attractive and may reduce our overall ability to generate profits. The LCR and NSFR 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.

Resolution planning and resolvability: The Swiss banking act and capital adequacy ordinances provide FINMA with significant powers to intervene in order to prevent a failure of, or 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.

The Swiss banking act also provides FINMA with the ability to extinguish or convert to common equity the capital instruments and liabilities of UBS Group AG, UBS AG and UBS Switzerland AG in connection with a resolution. FINMA has broad powers and significant discretion in the exercise of its powers in connection with a resolution proceeding. Certain classes of creditors, such as Swiss deposits, are protected. As a result, holders of obligations of an entity subject to a Swiss restructuring proceeding may have their obligations extinguished or converted to equity even though obligations ranking on a parity with or junior to such obligations are not restructured.

Swiss TBTF requirements require Swiss SRBs, including UBS, to put in place viable emergency plans to preserve the operation of systemically important functions in the event of a failure of the institution, to the extent that such activities are not sufficiently separated in advance. The current Swiss TBTF law provides for the possibility of a limited reduction of capital requirements for Swiss SRBs that adopt measures to reduce resolvability risk beyond what is legally required. Such actions include changes to the legal structure of a bank group 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. The aforementioned proposal for a revised TBTF ordinance contemplates a limited reduction of the proposed gone concern requirement based on improvements to resolvability. However, there is no certainty with respect to timing or size of a potential rebate.

Movement of businesses to subsidiaries, which we refer to in this section as subsidiarization, will require significant time and resources to implement. As also discussed below, subsidiarization in Switzerland and elsewhere may create operational, capital, liquidity, funding and tax inefficiencies and may increase our own and our counterparties' credit risk.

There can be no assurance that the execution of the changes we have undertaken, planned or may implement in the future, will result in a material reduction in capital or gone concern requirements or that these changes will satisfy existing or future requirements for resolvability or mandatory structural change in banking organizations.

Market regulation: In June 2015, the Swiss Parliament adopted new regulation of the financial market infrastructure in Switzerland which came into effect on 1 January 2016, subject to phase-in provisions, and mandates, among other things, the clearing of OTC derivatives with a central counterparty. 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. In addition, these initiatives may cause us to incur material implementation costs. ▲

Regulatory and legislative changes outside Switzerland

EDTF | Regulatory and legislative changes in other locations in which we operate may subject us to a wide range of new restrictions both in individual jurisdictions and, in some cases, globally.

Banking structure and activity limitations: Regulatory and legislative changes may subject us to requirements to move activities from UBS AG branches into subsidiaries. Such subsidiarization can create operational, capital, liquidity, funding and tax inefficiencies, increase our aggregate credit exposure to counterparties as they transact with multiple entities within our 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 and severely limit our booking flexibility.

For example, we have significant operations in the UK and currently use UBS AG's London branch as a global booking center for many types of products. We have been required by the Prudential Regulatory Authority (PRA) and by FINMA to very substantially increase the capitalization of our UK bank subsidiary, UBS Limited, and may be required to change our booking practices to reduce, or even eliminate, our utilization of UBS AG's London branch as a global booking center for the ongoing business of the Investment Bank.

We are subject to the US "Volcker Rule" under the Dodd-Frank Act and may become subject to other regulations substantively limiting the types of activities in which we may engage. We have incurred substantial costs to implement a compliance and monitoring framework to comply with the Volcker Rule and have been required to modify our business activities both inside and outside of 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.

OTC derivatives regulation: In 2009, the G20 countries committed to require all standardized over-the-counter (OTC) derivative contracts to be traded on exchanges or trading facilities and cleared through central counterparties. This commitment is being implemented through Dodd-Frank in the US and corresponding legislation in the EU, Switzerland – where the new regulation came into effect on 1 January 2016 – and other jurisdictions, and has and will continue to have a significant effect on our OTC derivatives business, which is conducted primarily in the Investment Bank. 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. 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.

UBS AG registered as a swap dealer with the Commodity Futures Trading Commission (CFTC) in the US at the end of 2012, enabling the continuation of its swaps business with US persons. We expect to register UBS AG as a security-based swap dealer with the SEC, when its registration is required. Some of these regulations, including those relating to swap data reporting, recordkeeping, compliance and supervision, apply to UBS AG globally. The changes in OTC derivative regulation in the US, the EU, Switzerland and elsewhere continue to present a substantial implementation burden, and 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 as swap dealers in the US with the SEC or CFTC.

Regulation of cross-border provision of financial services: In many instances, we provide services on a cross-border basis. 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 on the basis of some notion of comity, e.g., substituted compliance and equivalence determination. A negative determination in certain jurisdictions 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 jurisdictions tend to apply such determinations on a jurisdictional level rather than on an entity level, we will generally need to rely on jurisdictions' willingness to collaborate. ▲

Resolution and recovery; bail-in

EDTF | We are currently required to produce recovery and resolution plans in the US, the UK, Switzerland and Germany and are likely to face similar requirements for our operations in other jurisdictions, including our operations in the EU as a whole as part of the proposed EU Bank Recovery and Resolution Directive. If a recovery or resolution plan is determined by the relevant authority to be inadequate or not credible, relevant regulation may authorize 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. Resolution plans may increase the pressure on us to make structural changes, such as the creation of separate legal entities, if the resolution plan in any jurisdiction identifies impediments that are not acceptable to the relevant regulators. Such structural changes may negatively affect our ability to benefit from synergies between business units, and if they include the creation of separate legal entities, may have the other negative consequences mentioned above with respect to subsidiarization more generally.

Regulatory requirements for banks to maintain minimum TLAC, such as those contemplated under the proposed revised Swiss TBTF ordinance, or requirements to maintain TLAC at subsidiaries, e.g., those proposed by the Federal Reserve Board for US IHC, 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 likely increase our cost of funding and could potentially increase the total amount of funding required absent other changes in our business. ▲

Possible consequences of regulatory and legislative developments

EDTF | 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. 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 inefficiencies and affecting 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. ▲

If we are unable to maintain our capital strength, this may adversely affect our ability to execute our strategy, client franchise and competitive position

EDTF | Our capital position, as measured by our risk-weighted capital and leverage ratios under Swiss SRB Basel III requirements, is determined by our RWA, our leverage ratio denominator and our eligible capital. RWA, leverage ratio denominator and eligible capital may fluctuate based on a number of factors.

RWA are credit, non-counterparty related, market and operational risk positions, measured and risk-weighted according to regulatory criteria. They are driven by our business activities and by changes in the risk profile of our exposures, as well as the effect of currency and methodology changes and regulatory requirements. 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. Our eligible capital would be reduced if we experienced losses recognized within net profit or other comprehensive income, as determined for the purpose of the regulatory capital calculation, which may also render it more difficult or more costly for us to raise new capital. In addition, eligible capital can be reduced for a number of 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. Refer to *"Fluctuation in foreign exchange rates and continuing low or negative interest rates may have a detrimental effect on our capital strength, our liquidity and funding position, and our profitability"* above for more information on the effect on capital of changes to pension plan defined benefit obligations. Any such increase in RWA or reduction in eligible capital could materially reduce our capital ratios.

Risks captured in the operational risk component of RWA have become increasingly significant as a component of our overall RWA. We have significantly reduced our market risk and credit risk RWA as we have executed our strategy, however, operational risk events, particularly those arising from litigation, regulatory and similar matters have resulted in significant increases in operational risk RWA. We have agreed on a supplemental analysis with FINMA that is used to calculate an incremental operational risk capital charge to be held for litigation, regulatory and similar matters and other contingent liabilities which as of 31 December 2015 was CHF 13.3 billion. There can be no assurance that UBS will be successful in settling these matters at existing or future provision levels, and reducing or eliminating the incremental operational risk component of RWA.

The required levels and calculation of our regulatory capital and the calculation of our RWA are also subject, in Switzerland or in other jurisdictions in which we operate, to changes in regulatory requirements or their interpretation, as well as the exercise of regulatory discretion. Changes in the calculation of RWA, or, as already discussed above, the imposition of additional supplemental RWA charges or multipliers applied to certain exposures, or the imposition of a 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 to some degree the benefit of our actions.

In addition to the risk-based capital requirements, we are subject to a minimum leverage ratio requirement for Swiss SRBs and expect to become subject to significantly higher leverage ratio-based capital and TLAC requirements under the proposed revisions to the Swiss TBTF framework. The leverage ratio operates separately from the risk-based capital requirements. It 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. Increases in the minimum leverage ratio or the imposition of other LRD-based requirements, such as in the current Swiss proposal, may adversely affect the profitability of some of our businesses, make these businesses less competitive and adversely affect our profitability. ▲

➔ Refer to the "Regulatory and legal developments" section of this report for more information

We may not be successful in completing our announced strategic plans

EDTF | 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 Basel III RWA and further strengthening our capital position, and significantly reducing costs and improving efficiency. We have substantially completed the transformation of our business. As part of our strategy, we have also announced annual performance expectations and targets for the Group, the business divisions and Corporate Center. In the third quarter of 2015 we amended some of these for 2016 and future years, in light of actual and forecasted changes in macroeconomic conditions, the announcement of the new Swiss TBTF proposal and the continuing costs of meeting new regulatory requirements. A risk remains that we may need to further amend our targets and expectations, that we may not succeed in executing the rest of our plans, that our plans may be delayed, that market events or other factors may adversely affect the implementation of our plans or that their effects may differ from those intended.

In particular, we have substantially reduced the RWA and LRD usage of our 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. Delivering on our cost reduction initiatives is one of our key priorities, but a number of factors could negatively impact our plans. Higher permanent regulatory costs and business demand than we had originally anticipated have partly offset our gross cost reductions, and although we currently expect to achieve the net cost reduction that we had targeted for 2015 by around the middle of 2016, we could be further challenged in the execution of this and our further cost reduction plans. Moreover, the success of our strategy and our ability to reach some of our announced targets depends on the success of the effectiveness and efficiency measures we are able to carry out. As is often the case with major effectiveness and efficiency programs, our plans involve significant risks. Included among these are the risks that restructuring costs may be higher and may be recognized sooner than we have 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 work force 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. Changes in workforce location or reductions in workforce can 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, under International Financial Reporting Standards (IFRS) we are required to recognize provisions for real estate lease contracts when the unavoidable costs of meeting the obligations under the contracts exceed the benefits expected to be received under them. Additionally, closure or disposal of operations may result in foreign currency translation losses (or gains) previously recorded in other comprehensive income being 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 and achieve our targeted returns. ▲

Material legal and regulatory risks arise in the conduct of our business

EDTF | The nature of our business subjects us to significant regulatory oversight and liability risk. As a global financial services firm operating in more than 50 countries, we are subject to many different legal, tax and regulatory regimes. We are involved in a variety of claims, disputes, legal proceedings and government investigations and inquiries, including matters related to our cross border business and licensing, trading practices, securities offerings including residential mortgage-backed securities, sales practices and suitability, accounting matters, anti-money laundering, sanctions and anti-corruption laws and investment management practices. These proceedings expose us to substantial monetary damages and legal defense costs, injunctive relief and criminal and civil penalties, in addition to potential regulatory restrictions on our businesses. The outcome of most of these matters, and their potential effect on our future business or financial results, is extremely difficult to predict.

In December 2012, we announced settlements totaling approximately CHF 1.4 billion in fines by and disgorgements to US, UK and Swiss authorities to resolve investigations by those authorities relating to LIBOR and other benchmark interest rates. We entered into a non-prosecution agreement (NPA) with the US Department of Justice (DOJ) and UBS Securities Japan Co. Ltd. also 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 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.

Our settlements with governmental authorities in connection with foreign exchange and LIBOR and benchmark interest rates starkly illustrate the much-increased level of financial and reputational risk now associated with regulatory matters in major jurisdictions. 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 relating to LIBOR and other benchmark interest rates, 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.

We continue to be subject to a large number of claims, disputes, legal proceedings and government investigations, including the matters described in the notes to the consolidated financial statements included in this report 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 other terms on which some of these matters may be resolved. Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. Among other things, a guilty plea to, or conviction of, a crime (including as a result of termination of the NPA) could have material consequences for us. 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.

Ever since our material losses arising from the 2007 to 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 the unauthorized trading incident announced in September 2011, the LIBOR-related settlements of 2012 and settlements with some regulators of matters related to our foreign exchange and precious metals business, the resulting effects of these matters on our reputation and relationships with regulatory authorities have proven to be more difficult to overcome. We are determined to address the issues that have arisen in these and other matters in a thorough and constructive manner. 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 22 Provisions and contingent liabilities" in the "Consolidated financial statements" of this report for more information**

Operational risks affect our business

EDTF | Our businesses depend on our ability to process a large number of complex transactions 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 systems 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, cyber-attacks, breaches of information security and failure of security and physical protection, are appropriately controlled.

We devote significant resources to maintain systems and processes that are designed to protect our systems, networks and software and to protect the confidentiality of information belonging to our customers and us. However, 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 customers, violations of data privacy and similar laws, litigation exposure and damage to our reputation.

A major focus of US governmental policy relating to financial institutions in recent years has been fighting money laundering and terrorist financing. Regulations applicable to us impose obligations 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.

Although we seek to continuously adapt our capability to detect and respond to the risks described above, 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.

Our wealth and asset management businesses operate in an environment of increasing regulatory scrutiny and changing standards. Legislation and regulation have changed and are likely to continue to change fiduciary and other standards of care for asset managers and advisors and have increased focus on mitigating or eliminating conflicts of interest between a manager or advisor and the client. These changes have presented, and likely will continue to present, regulatory and operational risks if not implemented effectively across the global systems and processes of investment managers and other industry participants. If we fail to effectively implement controls to ensure full compliance with new, more stringent standards in the wealth and asset management industry, we could be subject to additional fines and sanctions as a result. These could have an impact on our ability to operate or grow our wealth and asset management businesses in line with our strategy.

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

EDTF | Our reputation is critical to the success of our strategic plans. Damage to our reputation can have fundamental negative effects on our business and prospects. Reputational damage is difficult to reverse, and improvements tend to be slow and difficult to measure. This was demonstrated in recent years, as our very large losses during the financial crisis, the US cross-border matter (relating to the governmental inquiries and investigations relating to our cross-border private banking services to US private clients during the years 2000–2007 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. More recently, 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

EDTF | 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 levels, 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, war or terrorism. Because financial markets are global and highly interconnected, even local and regional events, such as the ongoing European sovereign debt concerns or concerns around the potential exit from the EU by the UK or a significant slowing of economic growth in China can have widespread impact well beyond the countries in which they occur.

A crisis could develop, regionally or globally, as a result of disruptions in emerging markets as well as developed markets that are susceptible to macroeconomic and political developments, or as a result of the failure of a major market participant. Macroeconomic and political developments can have unpredictable and destabilizing effects, as reflected in our Global Recession scenario, which we implemented in 2015 as the binding scenario in our combined stress-testing framework, and which 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.

We have material exposures to a number of markets, both as a wealth manager and as an investment bank. Moreover, 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 them. Toward the end of 2015, uncertainties regarding macroeconomic developments in China, and emerging markets more broadly, as well as weakening of commodity prices, particularly oil, have given rise to increased market volatility, which could well persist throughout 2016.

A reduction in business and client activity and market volumes, as significant market volatility can determine and, as we have recently experienced, affects transaction fees, commissions and margins, particularly in our wealth management businesses and our Investment Bank. A market downturn is likely to reduce the volume and valuations of assets we manage on behalf of clients, reducing our asset and performance-based fees. On the other side, reduced market liquidity or volatility limits trading and arbitrage opportunities and impedes our ability to manage risks, impacting both trading income and performance-based fees. Additionally, deteriorating market conditions could cause a decline in the value of assets that we own and account for as investments or trading positions.

The regional balance of our business mix also exposes us to risk. Our Investment Bank equities business, for example, is more heavily weighted to Europe and Asia, and therein 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.

The ongoing low interest rate environment will further erode interest margins in several of our businesses and adversely affect our net defined benefit obligations in relation to our pension plans. Moreover, negative interest rates announced by central banks in Switzerland or elsewhere may also affect client behavior. Also, changes to our deposit and lending pricing and structure that we have made and may make to respond to negative interest rates and client behavior may cause deposit outflows (as happened with Wealth Management's balance sheet and capital optimization program in 2015), reduce business volumes or otherwise adversely affect our businesses, particularly given the associated cost of maintaining the high-quality liquid assets required to cover regulatory outflow assumptions embedded in the LCR.

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 risk in, among others, our prime brokerage, reverse repurchase and Lombard lending activities, as the value or liquidity of the assets against which we provide financing may decline rapidly.

Because we have very substantial exposures to other major financial institutions, the failure of one or more such institutions could also have a material effect on us.

We are a member of numerous securities and derivative exchanges and clearing houses. In connection with some of those memberships, we may be required to pay a share of the financial obligations of another member who defaults or we may be otherwise exposed to additional financial obligations.

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 euro, we could suffer losses from enforced default by counterparties, be unable to access our own assets, or be impeded in, or prevented from, managing our risks.

The developments mentioned above have in the past affected and could materially affect the performance of the business units and of UBS as a whole, and ultimately our financial and capital position. There are related risks that, as a result of the factors listed above, the carrying value of goodwill of a business unit might suffer impairment and deferred tax asset levels may need to be adjusted. ▲

We may not be successful in implementing changes in our wealth management businesses to meet changing market, regulatory and other conditions

EDTF | 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.

One of the important drivers behind the longer-term reduction in the amount of cross-border private banking assets, particularly in Europe but increasingly also in other regions, including emerging markets, is the heightened focus of fiscal authorities on cross-border investments. For the last several years, UBS has experienced net withdrawals in its Swiss booking center from clients domiciled elsewhere in Europe, in many cases related to the negotiation of tax treaties between Switzerland and other countries. Changes in local tax laws or regulations and their enforcement, the implementation of cross-border tax information exchange regimes, including international agreements for automatic tax information exchange, national tax amnesty or enforcement programs or similar actions, in Europe or elsewhere in the world, may affect the ability or the willingness of our clients to do business with us, and result in additional, and possibly material, cross-border outflows, or affect the viability of our strategies and business model.

The net new money inflows in recent years in our Wealth Management business division 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, put downward pressure on our return on invested assets and adversely affect the profitability of our Wealth Management business division.

We will continue our efforts to adjust to client trends, regulatory and market dynamics as necessary, in an effort to overcome the effects of changes in the business environment on our profitability, balance sheet and capital positions, but there is no assurance that we will be able to counteract those effects. Moreover, initiatives we may carry out for this purpose may cause net new money outflows and reductions in client deposits, as happened with Wealth Management's 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 (fees paid to a bank for distributing third-party and intra-group investment funds and structured products) and other industry developments. These changes may adversely affect our margins on these products and the 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 impact of these or similar trends and developments. ▲

➔ Refer to "Wealth Management" in the "Financial and operating performance" section of this report for more information

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

EDTF | The financial services industry is characterized by intense competition, continuous innovation, 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, or are unable to attract or retain the qualified people needed to carry them out.

The amount and structure of our employee compensation are affected not only by our business results but also by competitive factors and regulatory considerations. 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, and may in turn negatively affect our business performance.

We have made changes to the terms of compensation awards to reflect the demands of various stakeholders, including regulatory authorities and shareholders. These terms include the introduction of a deferred contingent capital plan with many of the features of the loss-absorbing capital that we have issued in the market but with a higher capital ratio write-down trigger for members of the Group Executive Board, increased average deferral periods for stock awards, and expanded forfeiture, and to a more limited extent claw-back, provisions for certain awards linked to business performance.

In the EU we are subject to legislation that caps the amount of variable compensation in proportion to the amount of fixed compensation for employees in key risk-taker roles, and whose application could potentially extend to a wider group of employees, on the basis of the revised guidelines on sound remuneration policies published by the European Banking Authority in December 2015.

Moreover, from the 2015 annual general meeting, Swiss law requires UBS to submit to the binding vote of the shareholders the aggregate compensation of each of the board of directors and the executive board on an annual basis.

These requirements, while intended to better align the interests of our staff with those of other stakeholders, increase the risk that key employees will be attracted by competitors and decide to leave us, and that we may be less successful than our competitors in attracting qualified 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. ▲

We hold legacy and other risk positions that may be adversely affected by conditions in the financial markets; legacy risk positions may be difficult to liquidate

EDTF | Like other financial market participants, we were severely affected by the financial crisis that began in 2007. The deterioration of financial markets since the beginning of the crisis was extremely severe by historical standards, and we recorded substantial losses on fixed income trading positions, particularly in 2008 and 2009. Although we have significantly reduced our risk exposures starting in 2008, and more recently as we progress our strategy and focus on complying with Swiss TBTF standards, we continue to hold substantial legacy risk positions, primarily in Corporate Center – Non-core and Legacy Portfolio. In many cases, these risk positions remain illiquid, and we continue to be exposed to the risk that the remaining positions may again deteriorate in value.

Moreover, 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 has been very 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. Other macroeconomic developments, such as the implications on export markets of the appreciation of the Swiss franc, 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/EEA countries, could also adversely affect the Swiss economy, our business in Switzerland in general and, in particular, our Swiss mortgage and corporate loan portfolios. ▲

We depend on our risk management and control processes to avoid or limit potential losses in our businesses

EDTF | 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. 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 financial 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. 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 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. 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.

If we decide to support a fund or another investment that we sponsor in our asset or wealth management businesses, we might, depending on the facts and circumstances, incur expenses that could increase to material levels.

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 impact on our earnings. ▲

Valuations of certain positions rely on models; models have inherent limitations and may use inputs that have no observable source

EDTF | If available, the fair value of a financial instrument or non-financial asset or liability is determined using quoted prices in active markets for identical assets or liabilities. Where the market is not active, fair value is established using a valuation technique, including pricing models. Where available, valuation techniques use market observable assumptions and inputs. If such information is not available, inputs may be derived by reference to similar instruments in active markets, from recent prices for comparable transactions or from other observable market data. If market observable data is not available, we select non-market observable inputs to be used in our valuation techniques.

We also use internally developed valuation models. Such models have inherent limitations; different assumptions and inputs would generate different results, and these differences could have a significant impact on our financial results. We regularly review and update our valuation models to incorporate all factors that market participants would consider in setting a price, including factoring in current market conditions. Judgment is an important component of this process, and failure to make the changes necessary to reflect evolving market conditions could have a material adverse effect on our financial results. Moreover, evolving market practice may result in changes to valuation techniques that could have a material impact on our financial results.

Changes in model inputs or calibration, changes in the valuation methodology incorporated in models, or failure to make the changes necessary to reflect evolving market conditions could have a material adverse effect on our financial results. ▲

Liquidity and funding management are critical to our ongoing performance

EDTF | 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. 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. 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 change in the availability of short-term funding could occur quickly.

Reductions in our credit ratings can 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 our 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 ratings changes could influence the performance of some of our businesses.

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 and the potential future requirements to maintain senior unsecured debt that could be written down in the event of our insolvency or other resolution, may increase our funding costs or limit the availability of funding of the types required. ▲

Our financial results may be negatively affected by changes to accounting standards

EDTF | We report our results and financial position in accordance with IFRS as issued by the International Accounting Standards Board (IASB). 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. We monitor potential accounting changes and when these are finalized by the IASB, we determine the potential impact and disclose significant future changes in our financial statements. 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 impact 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. ▲

Our financial results may be negatively affected by changes to assumptions supporting the value of our goodwill

EDTF | The goodwill that we have recognized on the respective balance sheets of our operating segments is tested for impairment at least annually. Our impairment test in respect of the assets recognized as of 31 December 2015 indicated that our respective goodwill balances are not impaired. The impairment test is based on assumptions regarding estimated earnings, discount rates and long-term growth rates impacting the recoverable amount of each segment and on estimates of the carrying amounts of the segments to which the goodwill relates. If the estimated earnings and other assumptions in future periods deviate from the current outlook, the value of the goodwill in any one or more of our businesses may become impaired in the future, giving rise to losses in the income statement. ▲

The effect of taxes on our financial results is significantly influenced by reassessments of our deferred tax assets

EDTF | The deferred tax assets (DTAs) that we have recognized on our balance sheet as of 31 December 2015 based on prior years' tax losses reflect the probable recoverable level based on future taxable profit as informed by our business plans. If the business plan earnings and assumptions in future periods substantially deviate from current forecasts, the amount of recognized DTAs may need to be adjusted in the future. These adjustments may include write-downs of DTAs through the income statement.

Our effective tax rate is highly sensitive both to our performance as well as our expectation of future profitability as reflected in our business plans. Our results in recent periods have demonstrated that changes in the recognition of DTAs can have a very significant effect on our reported results. 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. Conversely, if our performance in those countries is expected to produce diminished taxable profit in future years, 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.

For 2016, notwithstanding the effects of any potential reassessment of the level of deferred tax assets, we expect the effective tax rate to be in the range of 22% to 25%. Consistent with past practice, we expect to revalue our deferred tax assets in the second half of 2016 based on a reassessment of future profitability taking into account updated business plan forecasts. The full-year effective tax rate could change significantly on the basis of this reassessment. It could also change if aggregate tax expenses in respect of profits from branches and subsidiaries without loss coverage differ from what is expected. Part of the aforementioned reassessment of future profitability includes consideration of a possible further extension of the forecast period used for US deferred tax asset recognition purposes to eight years from the seven years used as of 31 December 2015. The determination of whether to extend the forecast period by an additional year will be made on the basis of all relevant facts and circumstances existing at that time. Inasmuch as the ex-ante parameters we have established for further extending the forecast period are more challenging to satisfy than in prior years, it is therefore less probable that we will add an eighth year to the forecast period in 2016 for purposes of revaluing our US deferred tax assets.

UBS's effective tax rate is also sensitive to any future reductions in statutory tax rates, particularly in the US and Switzerland. Reductions in the statutory tax rate 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.

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.

Moreover, we have undertaken, or are considering, changes to our legal structure in the US, the UK, Switzerland and other countries in response to regulatory changes. Tax laws or the tax authorities in these countries 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. ▲

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

EDTF | 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 any new subsidiaries established by UBS Group AG in the future. 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, the requirements of applicable law and regulatory, fiscal or other restrictions. UBS Group AG's direct and indirect subsidiaries, including UBS AG, UBS Switzerland AG, UBS Limited and the US IHC (when designated) 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, or limit or prohibit transactions with affiliates. 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.

Subordinated debt and capital instruments issued by UBS Group AG that contribute to its regulatory capital contractually prevent UBS Group AG to propose the distribution of dividends to shareholders, other than in the form of shares, if we do not pay interest on these instruments.

UBS Group AG's credit rating could be lower than the rating of UBS AG, which may adversely affect the market value of the securities and other obligations of UBS Group AG on a standalone basis.

Furthermore, we expect that UBS Group AG may guarantee some of the payment obligations of certain of our 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. ▲

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

EDTF | We are committed to a total capital return to shareholders of at least 50% of net profit attributable to our 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, changes to capital standards such as the changes currently proposed in Switzerland, methodologies and interpretation that may adversely affect the calculation of our fully applied CET1 capital ratio, and the imposition of risk add-ons or capital buffers. Refer to "*Fluctuation in foreign exchange rates and continuing low or negative interest rates may have a detrimental effect on our capital strength, our liquidity and funding position, and our profitability*" and to "*If we are unable to maintain our capital strength, this may adversely affect our ability to execute our strategy, client franchise and competitive position*" above for more information on certain factors that could cause our capital ratios to fluctuate significantly, including the effect on capital of changes to pension plan defined benefit obligations.

Moreover, changes in the methodology, assumptions, stress scenario, market conditions, business volumes and other factors may result in material changes in our post-stress fully applied CET1 capital ratio. These factors may lead to material fluctuations in our post-stress fully applied CET1 capital ratio during any period. 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 future developments in the ratio.

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 to arrive at the post-stress fully applied CET1 capital ratio. 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.

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, and assumptions are 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. A change in the CST scenario used to calculate the post-stress fully applied CET1 capital ratio, or in the assumptions used in a particular scenario, may cause the post-stress fully applied CET1 capital ratio to fluctuate materially.

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/quarter data as an estimate.

All of these factors may result in our post-stress fully applied CET1 capital ratio, as calculated using our methodology for any period, being materially higher or lower than the actual effect of a stress scenario. ▲

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

EDTF | 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 or UBS 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. Additionally, creditors would have no right under Swiss law or in Swiss courts to reject, seek the suspension of, or challenge the imposition of any such protective measures, including those that require or result in the deferment of payments owed to creditors.

If restructuring proceedings are opened with respect to UBS Group AG, UBS AG or UBS Switzerland AG, the resolution powers, which 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. Certain categories of debt obligations, such as certain types of deposits, are protected. 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 untouched 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. ▲

APPENDIX 6 — A BRIEF GUIDE TO CREDIT RATINGS

Information set out in this Appendix 6 is based on, extracted or reproduced from the website of S&P at https://www.spratings.com/en_US/home and the website of Moody's at https://www.moodys.com, as of the day immediately preceding the date of this Base Listing Document. Information appearing on those websites does not form part of this Base Listing Document, and we accept no responsibility for the accuracy or completeness of the information appearing on those websites, except that we have accurately extracted and reproduced such information in this Appendix 6 and take responsibility for such extraction and reproduction. We have not separately verified such information. There can be no assurance that such information will not be revised by the relevant rating agency in the future and we have no responsibility to notify you of such change. If you are unsure about any information provided in this Appendix 6 and/or what a credit rating means, you should seek independent professional advice.

What is a credit rating?

A credit rating is a forward looking opinion by a credit rating agency of a company's overall ability to meet its financial obligations. The focus is on the company's capacity to pay its debts as they become due. The rating does not necessarily apply to any specific obligation.

What do the credit ratings mean?

Below are guidelines issued by S&P and Moody's on what each of their investment-grade ratings means, as of the day immediately preceding the date of this Base Listing Document.

S&P long-term issuer credit ratings

AAA

An obligor rated 'AAA' has extremely strong capacity to meet its financial commitments. 'AAA' is the highest issuer credit rating assigned by S&P.

AA

An obligor rated 'AA' has very strong capacity to meet its financial commitments. It differs from the highest-rated obligors only to a small degree.

A

An obligor rated 'A' has strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in higher-rated categories.

BBB

An obligor rated 'BBB' has adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments.

Plus (+) or minus (-)

The above ratings (except for 'AAA') may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.

Please refer to http://www.spratings.com/en_US/understanding-ratings#firstPage for further details.

Moody's long-term ratings definitions

Aaa

Obligations rated Aaa are judged to be of the highest quality, subject to the lowest level of credit risk.

Aa

Obligations rated Aa are judged to be of high quality and are subject to very low credit risk.

A

Obligations rated A are considered upper-medium grade and are subject to low credit risk.

Baa

Obligations rated Baa are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics.

Modifiers "1", "2" and "3"

Moody's appends numerical modifiers 1, 2 and 3 to each of the above generic rating classifications (except for Aaa). The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.

Please refer to https://www.moodys.com/Pages/amr002002.aspx for further details.

Rating Outlooks

A rating outlook indicates the potential direction of a long-term credit rating over the intermediate term (for example, this is typically six months to two years for S&P). A rating outlook issued by S&P or Moody's will usually indicate whether the potential direction is likely to be "positive", "negative", "stable" or "developing". Please refer to the abovementioned websites of the relevant credit rating agencies for further details regarding rating outlooks published by the relevant credit rating agencies.

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