BASE LISTING DOCUMENT DATED 12 APRIL 2019

If you are in doubt as to any aspect of this document, you should consult your stockbroker or other registered dealer in securities, bank manager, solicitor, professional accountant or other professional adviser.

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

Credit Suisse AG

(incorporated under the laws of Switzerland)

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 derivative warrants (**warrants**), callable bull/bear contracts (**CBBCs**) and other structured products (warrants, CBBCs and such other structured products are collectively, **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. You must ask us if any addenda to this document have been issued.

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.

The structured products are complex products. You should exercise caution in relation to them. You are warned that the prices of structured products may fall in value as rapidly as they may rise and you may sustain a total loss of your investment. You should therefore ensure that you 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 you invest in any structured products.

The structured products constitute general unsecured contractual obligations of us as the Issuer 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 any structured products, you are relying upon the creditworthiness of us, and have no rights under such 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 or any company constituting the 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).

Sponsor and Manager

Credit Suisse (Hong Kong) Limited

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IMPORTANT INFORMATION

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 launch announcement and 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 launch announcement and supplemental listing document (including any addendum to such launch announcement and 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.

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 an unsecured creditor of the Issuer. 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 the Issuer's credit ratings?

The Issuer's long-term credit ratings are:

Rating agency	*Ratings as at the day immediately preceding the date of this document*
Moody's Deutschland GmbH (**Moody's**)	A1 (stable outlook)
S&P Global Ratings Europe Limited (**S&P**)	A (positive outlook)

The long-term credit ratings are only an assessment by the credit rating agencies of the Issuer's overall financial capacity to pay its debts.

A1 is among the top three major credit rating categories and is the fifth highest investment-grade ranking of the ten investment-grade credit 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 credit ratings (including + or - sub-grades) assigned by S&P.

Please refer to the brief guide in appendix 7 to this document to what such credit ratings mean.

Rating agencies usually receive a fee from the companies that they rate. When evaluating our creditworthiness, you should not solely rely on our credit ratings because:

(a) a credit rating is not a recommendation to buy, sell or hold the structured products;

(b) 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;

(c) a high credit rating is not necessarily indicative of low risk. Our credit ratings as of the above date are for reference only. Any downgrading of our ratings could result in a reduction in the value of the structured products;

(d) a credit rating is not an indication of the liquidity or volatility of the structured products; and

(e) a credit rating may be downgraded if the credit quality of the Issuer declines.

The structured products are not rated. The Issuer's credit ratings and credit rating outlooks 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 the Issuer's ratings and outlooks from time to time.

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

We are regulated by the Hong Kong Monetary Authority as a registered institution. We are also, amongst others, regulated by the Swiss Financial Market Supervisory Authority (**FINMA**).

Is the Issuer subject to any litigation?

Except as disclosed in the section headed "Legal Proceedings Information extracted from Credit Suisse Annual Report 2018" set out in appendix 6 of this document, we and our affiliates are not involved in any litigation, claims or arbitration proceedings which are material in the context of the issue of the structured products. Also, we are not aware of any proceedings or claims which are threatened or pending against us or our affiliates.

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

Save as disclosed in this document, there has been no material adverse change in our financial position since 31 December 2018. You may access our latest publicly available financial information by visiting our website at *www.credit-suisse.com*.

Do you need to pay any transaction cost?

The stock exchange charges a trading fee of 0.005 per cent. and the Securities and Futures Commission (**SFC**) charges a transaction levy of 0.0027 per cent. in respect of 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?

You may be required to pay stamp duties, taxes and other charges in accordance with the laws and practices of the country of your purchase in addition to the issue price of each structured product. See the section headed "Taxation" for further information.

Authorised representatives and acceptance of service

Our authorised representatives are Ernest Ng and Jenny Lam, both of Level 91, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong.

Credit Suisse (Hong Kong) Limited (presently at Level 88, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong) has been authorised to accept, on our behalf, service of process and any other notices required to be served on us.

Where can you inspect the relevant documents?

You may inspect copies of the following documents during usual business hours on any weekday (Saturdays, Sundays and holidays excepted) at the offices of Credit Suisse (Hong Kong) Limited, (presently at Level 88, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong):

(a) the consent letters from KPMG AG (our **auditors**) in relation to the inclusion of their three reports on our (i) consolidated financial statements; (ii) the effectiveness of internal control over financial reporting and (iii) the compensation report of Credit Suisse Group AG in this document;

(b) the annual report 2018 of Credit Suisse Group AG & Credit Suisse AG (**Credit Suisse Annual Report 2018**);

(c) this document and any addenda or successor document to this document;

(d) the launch announcement and supplemental listing document as long as the relevant series of structured products is listed on the stock exchange; and

(e) a Chinese translation of each of the listing documents.

Request for photocopies of the above documents will be subject to a reasonable fee which reflects the costs 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-hk.credit-suisse.com/en/home_e.cgi.*

各上市文件亦可於香港交易所披露易網站 *(www.hkexnews.hk)* 以及本公司網站 *http://warrants-hk.credit-suisse.com/home_c.cgi* 瀏覽。

Have our auditors consented to the inclusion of their reports in this document?

Our auditors have given and have not withdrawn their written consents dated 12 April 2019 regarding the inclusion of their three reports dated 22 March 2019 and/or the references to their name in this document, in the form and context in which they are included. Their three reports were not prepared for incorporation in this document. Our auditors do not have any shareholding in us, nor do they have the right (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for our securities.

Placing and sale and grey market dealings

No action has been taken to permit a public offering of structured products or the distribution of this document in any jurisdiction where action would be required for such purposes. The distribution of this document and the offering of any structured products may, in certain jurisdictions, be restricted by law. You must inform yourself of and observe all such restrictions. See the section headed "Placing and Sale" in this document for further details.

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 on the listing date through the website of HKEX at *www.hkexnews.hk.*

The listing documents are not the sole basis for making your investment decision

The listing documents do not take into account your investment objectives, financial situation or particular needs. The listing documents are not intended to provide the basis of any credit or other evaluation and should not be considered as a recommendation by us or the sponsor, that you should purchase any of the structured products or the underlying asset of the structured products. We do not imply that there has been no change in the information set out in this document since its publication date.

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.

This document has not been reviewed by the SFC. You are advised to exercise caution in relation to the offer of 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.

How can you get further information about us or the structured products?

You may visit *www.credit-suisse.com* to obtain further information about us and/or the structured products.

Undefined terms

Unless otherwise specified, terms not defined in this document have the meanings given to them in the general conditions set out in appendix 1 of this document and the relevant product conditions applicable to the relevant series of structured products set out in appendix 2 and appendix 3 of this document (together, **conditions**).

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 or strike level on the expiry date (as the case may be). It usually costs a fraction of the price or level of the underlying asset.

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

A list of eligible underlying assets for derivative warrants is available on the website of the HKEX at *http://www.hkex.com.hk/products/securities/derivative-warrants/derivative-warrant-eligible-underlying-assets/eligible-single-hong-kong-stocks-for-derivative-warrant-issuance-in-current-quarter?sc_lang=en.*

How and when can you get back your investment?

Our warrants are European style warrants. This means they can only be exercised on the expiry date.

Our warrants will be exercised on the expiry date, entitling you to a cash amount called the **cash settlement amount** (if positive) according to the conditions applicable to our warrants.

For cash settled warrants, you will receive the cash settlement amount (net of exercise expenses) upon expiry. If the cash settlement amount is equal to or less than the exercise expenses, no amount is payable to you upon expiry of your warrants and you will lose all of your investment in the structured products.

How do our warrants work?

Ordinary warrants

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

(a) for a warrant linked to a share or a unit, the exercise price and the arithmetic mean of the closing prices of such share or unit on the valuation dates (**average price**); or

(b) for a warrant linked to an index, the strike level and the closing level of such index on the valuation date,

each as described more in the applicable product conditions set out in parts A, B, C and D of appendix 2 of this document.

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 or the closing level is greater than the exercise price or the strike level (as the case may be). The more the average price or the closing level is greater than the exercise price or the strike level (as the case may be), the higher the payoff upon expiry. If the average price or the closing level (as the case may be) is equal to or less than the exercise price or the 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 or the closing level is less than the exercise price or the strike level (as the case may be). The more the average price or the closing level is less than the exercise price or the strike level (as the case may be), the higher the payoff upon expiry. If the average price or the closing level (as the case may be) is equal to or greater than the exercise price or the strike level (as the case may be), an investor in the put warrant will lose all of his investment.

Other types of warrants

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

Further details relating to how a particular series of warrants work will be set out in the relevant launch announcement and supplemental listing document.

Where can you find the general conditions and the product conditions applicable to our warrants?

You should review the general conditions and the product conditions applicable to each type of the warrants before your investment.

The general conditions are set out in appendix 1 of this document and the product conditions applicable to each type of our warrants are set out in appendix 2 of this document (as may be supplemented by any addendum or the relevant launch announcement and supplemental listing document).

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

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

(a) the exercise price or the strike level of the derivative warrants;

(b) the liquidity of the futures contracts relating to the underlying asset;

(c) the liquidity of the underlying asset;

(d) 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);

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

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

(g) the supply and demand for that warrant;

(h) the prevailing exchange rate between the underlying currency of the underlying asset and the settlement currency of the derivative warrants (if applicable);

(i) our related transaction costs; and/or

(j) our creditworthiness.

What is your maximum loss?

Your maximum loss in our warrants will be limited to your investment amount plus any transaction costs.

How can you get information about the warrants after issue?

You may visit the website of HKEX at *http://www.hkex.com.hk/products/securities/derivative-warrants?sc_lang=en* to obtain further information on derivative 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 or unit trusts listed on the stock exchange;

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

(c) overseas securities, overseas indices, currencies or commodities (such as oil, gold and platinum).

A list of eligible underlying assets for CBBCs is available on the website of the HKEX at *http://www.hkex.com.hk/products/securities/callable-bull-bear-contracts/cbbc-eligible-underlying-assets/eligible-single-hong-kong-stocks-for-cbbc-issuance-in-current-quarter?sc_lang=en*.

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.

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 for further information.

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. See "Category R CBBCs vs. category N CBBCs" below for further information.

If no mandatory call event occurs, the CBBCs will be exercised automatically on the expiry date. The cash settlement amount (if any) payable at expiry represents the difference between the closing price or the closing level of the underlying asset on the valuation date and the strike price or the strike level.

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 or the spot level of the underlying asset is:

(a) at or below the call price or the call level (in the case of a bull CBBC); or

(b) at or above the call price or the call level (in the case of a bear CBBC), at any time during the observation period.

For CBBCs over underlying assets traded or quoted locally, the observation period starts from and includes the observation commencement date of the relevant CBBCs and ends on and includes 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 after the time at which the mandatory call event occurs; 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 and all manual trades of the CBBCs concluded after the end of the pre-order matching period in such session,

will be invalid and 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 the case of CBBCs over single equities or CBBCs over single unit trusts listed on the stock exchange) 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);

(b) (in the case of CBBCs over index quoted on the stock exchange) 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); or

(c) (in the case of CBBCs over other underlying assets), the time as specified in the relevant launch announcement and supplemental listing document,

subject to the rules and requirements as prescribed by the stock exchange from time to time.

Category R CBBCs vs. category N CBBCs

The launch announcement and supplemental listing document for the relevant series of CBBCs will specify whether the CBBCs are category R CBBCs or category N CBBCs.

Category R CBBCs refer to CBBCs for which the call price or the call level is different from the strike price or the 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 the case of a bull CBBC) the difference between the minimum trade price or the minimum index level and the strike price or the strike level of the underlying asset; and

(b) (in the case of a bear CBBC) the difference between the strike price or the strike level and the maximum trade price or the maximum index level of the underlying asset.

Category N CBBCs refer to CBBCs for which the call price or the call level is equal to their strike price or the 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.

You must read the applicable conditions and the relevant launch announcement and 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 or the minimum index level of the underlying asset is equal to or less than the strike price or the strike level; or

(b) in the case of a series of bear CBBCs, the maximum trade price or the maximum index level of the underlying asset is equal to or greater than the strike price or the strike level.

Where can you find the general conditions and the product conditions applicable to our CBBCs?

You should review the general conditions and the product conditions applicable to the CBBCs before you invest.

The general conditions are set out in appendix 1 of this document and the product conditions applicable to our CBBCs are set out in appendix 3 of this document (as may be supplemented by any addendum or the relevant launch announcement and supplemental listing document).

How is the funding cost calculated?

The issue price of a CBBC is set by reference to (a) the difference between the initial reference spot price or spot level of the underlying asset as at the launch date of the CBBC and the strike price or the strike level, plus (b) if applicable, a funding cost.

The issue price of a CBBC includes the initial funding cost (if any) and the initial funding cost applicable to the CBBCs as of the launch date will be specified in the relevant launch announcement and supplemental listing document for the relevant series.

The funding cost is an amount determined by us based on a number of factors, including but not limited to the strike price or the strike level, the prevailing interest rate, the expected life of the CBBCs, any expected notional dividends or distribution in respect of the underlying assets 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 launch announcement and 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 our ability 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?

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).

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

(a) the strike price or the strike level and the call level or the call price;

(b) the likelihood of the occurrence of a mandatory call event;

(c) for category R CBBCs only, the probable range of the residual value payable upon the occurrence of a mandatory call event;

(d) probable range of cash settlement amount;

(e) the time remaining to expiry;

(f) the interim interest rates and expected dividend payments or other distribution on the underlying asset or on any components comprising the underlying index;

(g) the supply and demand for the CBBCs;

(h) the liquidity of future contracts relating to the underlying index;

(i) our related transaction costs; and/or

(j) our creditworthiness.

What is your maximum loss?

Your maximum loss in the CBBCs will be limited to your investment amount plus any transaction costs.

How can you get information about the CBBCs after issue?

You may visit the website of HKEX at *http://www.hkex.com.hk/products/securities/callable-bull-bear-contracts?sc_lang=en* to obtain further information on CBBCs or any notice given by us or the stock exchange in relation to our CBBCs.

TAXATION

The information below is of a general nature and is only a summary of the law and practice currently applicable in Switzerland, Hong Kong and the United States of America. The comments relate to the position of persons who are the absolute beneficial owners of the structured products and may not apply equally to all persons. If you are in any doubt as to your tax position on purchase, ownership, transfer or exercise of any structured product, you should consult your own tax advisers as to the Swiss, Hong Kong or the United States of America laws or other tax consequences of the acquisition, ownership and disposition of structured products, including, in particular, the effect of any foreign, state or local tax laws to which you are subject.

Taxation in Switzerland

Gain on sale or redemption

Under present Swiss law, a holder of structured products who is neither a resident of Switzerland nor whose transactions in the structured products are attributable to a permanent establishment within Switzerland during the taxable year will not be subject to any Swiss Federal, Cantonal or Municipal income or other tax on gains realised during that year on the holding, sale, redemption or exercise of a structured product.

Stamp tax

No stamp tax will arise in Switzerland in connection with the issue or sale of the structured products provided that no Swiss Bank or Swiss securities dealer is involved as a counterparty or an intermediary. Swiss stamp tax will not be payable on the exercise of a structured product provided that the structured product is not exercised by or through a Swiss Bank or a Swiss securities dealer.

Taxation in Hong Kong

Profits tax

No tax is payable in Hong Kong by withholding or otherwise in respect of:

(a) dividends of any company;

(b) distributions of any trust authorised as a collective investment scheme by the SFC under section 104 of the Securities and Futures Ordinance (Cap 571, The Laws of Hong Kong) or otherwise approved by the SFC which has issued the underlying units; and

(c) any capital gains, arising on the sale of the underlying securities or structured products, except that Hong Kong profits tax may be chargeable on any such gains in the case of certain persons carrying on a trade, profession or business in Hong Kong.

Stamp duty

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

United States Tax Considerations for Investors

U.S. Foreign Account Tax Compliance Act

Under certain tax information reporting and withholding provisions generally referred to as "FATCA" a 30% withholding tax is imposed on "withholdable payments" and certain "passthru payments" made to (i) a "foreign financial institution" unless the financial institution complies with, among other things, certain information reporting and withholding obligations with respect to its accounts in accordance with applicable rules implementing FATCA in the financial institution's jurisdiction or in accordance with an agreement entered into between the financial institution and the US Internal Revenue Service (**"IRS"**), and (ii) any other holder or beneficial owner that does not comply with the Issuer's or an intermediary financial institution's request for ownership certifications and identifying information.

"FATCA" means sections 1471 through 1474 of the Code, any final current or future regulations or official interpretations thereof, any agreement entered into pursuant to section 1471(b) of the Code, or any U.S. or non-U.S. fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such sections of the Code or any other non-U.S. tax information reporting regimes. The term "withholdable payments" generally includes payments of fixed or determinable annual or periodical gains, profits, and income ("FDAP"), in each case, from sources within the United States, (including payments on securities treated as "dividend equivalents" under section 871(m) of the Code). "Passthru payments" means any withholdable payment and any foreign passthru payment, which is currently not defined. We and other intermediary foreign financial institutions may be required to report information to the IRS regarding the holders of the securities and, in the case of holders or beneficial owners who (i) fail to provide the relevant information, (ii) are foreign financial institutions who are not in compliance with applicable information reporting requirements, or (iii) hold the securities directly or indirectly through such non-compliant foreign financial institutions, we or another withholding agent may be required to withhold tax at a rate of 30% on payments under the securities. FATCA also may require withholding agents making payments to certain foreign entities that do not disclose the name, address, and taxpayer identification number of any substantial U.S. owners (or certify that they do not have any substantial U.S. owners) to withhold tax at a rate of 30%.

Withholding under FATCA may apply without regard to whether the beneficial owner of the payment is a U.S. person, or would otherwise be entitled to an exemption from the imposition of withholding tax pursuant to an applicable tax treaty with the United States or pursuant to U.S. domestic law.

Subject to the exceptions described below, FATCA's withholding regime applies currently to withholdable payments and with respect to foreign passthru payments, will apply no earlier than the date that is two years after the date on which final U.S. Treasury regulations defining the term "foreign passthru payment" are published. Notwithstanding the foregoing, the provisions of FATCA discussed above generally will not apply to any obligation (other than an instrument that is treated as equity for U.S. tax purposes or that lacks a stated expiration or term) that is outstanding on June 30, 2014 (a "grandfathered obligation"), unless the obligation is materially modified after such date. If a holder holds its securities through a foreign financial institution or foreign entity, a portion of any of such holder's payments may be subject to 30% withholding.

The discussion above reflects recently proposed U.S. Treasury regulations. The U.S. Treasury have indicated that taxpayers may rely on the proposed regulations until final regulations are issued, and the discussion above assumes that the proposed regulations will be finalized in their current form.

Substitute Dividend and Dividend Equivalent Payments

Section 871(m) of the Code and regulations thereunder treat a "dividend equivalent" payment as a dividend from sources within the United States. Such payments generally will be subject to U.S. withholding tax at a rate of 30%.

Final regulations provide that a "dividend equivalent" is any payment or deemed payment that references the payment of (i) a dividend from an underlying security pursuant to a securities lending or sale-repurchase transaction, (ii) a dividend from an underlying security pursuant to a specified notional principal contract (a "specified NPC"), (iii) a dividend from an underlying security pursuant to a specified equity-linked instrument (a "specified ELI"), and (iv) any other substantially similar payment. The regulations provide that a payment includes a dividend equivalent payment whether there is an explicit or implicit reference to a dividend with respect to the underlying security. An underlying security is any interest in an entity if a payment with respect to that interest could give rise to a U.S. source dividend pursuant to Treasury regulation section 1.861-3. An NPC is a notional principal contract as defined in Treasury regulation section 1.446-3(c). An equity-linked instrument ("ELI") is a financial instrument (other than a securities lending or sale-repurchase transaction or an NPC) that references the value of one or more underlying securities, including a futures contract, forward contract, option, debt instrument, or other contractual arrangement. A "section 871(m) transaction" is any securities lending or sale-repurchase transaction, specified NPC, or specified ELI.

Final regulations and administrative guidance provide that for a transaction issued on or after January 1, 2017 and before January 1, 2021, any NPC or ELI that has a delta of one with respect to an underlying security when the NPC or ELI is issued is a specified NPC or specified ELI, respectively. For a transaction issued on or after January 1, 2021, (a) a "simple" NPC or "simple" ELI that has a delta of 0.8 or greater with respect to an underlying security when the NPC or ELI is issued is a specified NPC or specified ELI, respectively, and (b) a "complex" NPC or "complex" ELI that meets a substantial equivalence test with respect to an underlying security at the time of issuance is a specified NPC or specified ELI, respectively. The delta of a simple contract is determined, and the substantial equivalence test for a complex contract is performed, on the earlier of the date that the potential section 871(m) transaction is priced and the date when the potential section 871(m) transaction is issued; however, the issue date must be used if the potential section 871(m) transaction is priced more than 14 calendar days before it is issued. In addition, the delta or substantial equivalence of securities that are held in inventory prior to their sale to an investor may, in certain cases, be required to be retested at the time of sale or disposition from inventory. If securities sold from inventory are determined to be section 871(m) transactions and the same series of securities sold at issuance were determined not to be section 871(m) transactions, holders of securities sold at issuance may be adversely affected to the extent the Issuer or a withholding agent does not, or is unable to, identify and distinguish securities sold to investors at issuance from those sold out of inventory.

Certain events could cause previously issued securities to be deemed to be issued as new securities for purposes of the effective dates provided in the regulations. For example, it is possible that the IRS could assert that a reconstitution or rebalancing of the underlying is a significant modification of the securities due to an exercise of discretion with respect to such reconstitution or rebalancing and, therefore, a deemed issuance of the securities upon the occurrence of such event. It is also possible that U.S. withholding tax could apply to the securities under these rules if a holder enters, or has entered, into certain other transactions in respect of the underlying equity or the securities. A holder that enters, or has entered, into other transactions in respect of the underlying or the securities should consult its own tax advisor regarding the application of Code section 871(m) to its securities in the context of its other transactions.

Withholding on payments will be based on actual dividends or, if otherwise notified by the Issuer in accordance with applicable regulations, on estimated dividends used in pricing the security. If a security provides for any payments in addition to estimated dividends to reflect dividend amounts on the underlying security, withholding will be based on the total payments. If an issue of securities is a section 871(m) transaction, information regarding the amount of each dividend equivalent, the delta of the potential 871(m) transaction, the amount of any tax withheld and deposited, the estimated dividend amount and any other information necessary to apply the regulations in respect of such securities will be provided, communicated, or made available to holders of the securities in a manner permitted by the applicable regulations.

Withholding tax may apply even where holders do not receive a concurrent payment on the securities in respect of dividends on the underlying. U.S. tax will be withheld on any portion of a payment or deemed payment (including, if appropriate, the payment of the purchase price) that is a dividend equivalent.

The Issuer's determination as to whether a security is a transaction subject to withholding under section 871(m) generally is binding on holders. However, it is not binding on the IRS. The IRS may successfully argue that a security is subject to withholding under section 871(m), notwithstanding the Issuer's determination to the contrary. These regulations are extremely complex. Holders should consult their tax advisors regarding the U.S. federal income tax consequences to them of these regulations and whether payments or deemed payments on the securities constitute dividend equivalent payments.

Foreign Investment in U.S. Real Property

A holder may be subject to U.S. federal income tax on a disposition of a "U.S. real property interest" as defined in Treasury Regulations section 1.897-1(c) (a "USRPI"). Any gain on such disposition is treated as effectively connected with a U.S. trade or business of the non-U.S. holder and is subject to tax and withholding on the amount realized on the disposition. A USRPI may consist of a direct interest in U.S. real property or an interest in a United States real property holding corporation (a "USRPHC") within the meaning of section 897 of the Code. However, an interest in a USRPHC that does not exceed generally 5% of the corporation's regularly traded stock is not a USRPI.

Thus, a holder who owns directly, indirectly or constructively, shares of any of the underlying that are considered to be a USRPI, or other interests having a return based on the appreciation in the value of, or in the gross or net proceeds or profits generated by, such underlying, may be subject to U.S. federal income tax on the sale or exchange of the securities if such holder owns more than generally 5% of the shares of such underlying when considering the shares or interests of such underlying that are directly, indirectly or constructively owned by such holder. Ownership of the securities may also impact the taxation of such other shares or interests.

We do not intend to determine whether the issuer of shares in any underlying is a USRPHC. It is possible that the issuer of shares in an underlying is a USRPHC, and that the securities constitute an ownership interest in or an option on a USRPI, with the consequences described above. It is also possible that the issuer of shares in such underlying is not a USRPHC.

Each holder, in connection with acquiring the securities, is deemed to represent that it does not own, and will not own, more than 5% of the shares of each of the underlying that is considered to be a USRPHC, either directly, indirectly or constructively. We and any withholding agent will rely on the accuracy of this representation. For purposes of this discussion, any interest other than solely as a creditor within the meaning of Treasury Regulations Section 1.897-1(d) shall be treated as ownership of shares of the underlying. Even if the Issuer does not withhold, there can be no assurances that an intermediary withholding agent will not withhold in respect of a security. Further, holders may have U.S. income tax liability that exceeds amounts withheld, if any.

Holders should consult their own tax advisors on the impact of other shares or interests in the underlying, the impact of ownership of the securities on such other shares or interests, and the consequences of making the representation in the preceding paragraph.

U.S. Federal Estate Tax Treatment

A security may be subject to U.S. federal estate tax if an individual holds the security at the time of his or her death. The gross estate of a holder domiciled outside the United States includes only property situated in the United States. Holders should consult their tax advisors regarding the U.S. federal estate tax consequences of holding the securities at death.

Backup Withholding and Information Reporting

A holder of the securities may be subject to backup withholding with respect to certain amounts paid to such holder unless it provides a correct taxpayer identification number, complies with certain certification procedures establishing that it is not a U.S. holder or establishes proof of another applicable exemption, and otherwise complies with applicable requirements of the backup withholding rules. Backup withholding is not an additional tax. A holder can claim a credit against its U.S. federal income tax liability for amounts withheld under the backup withholding rules, and amounts in excess of its liability are refundable if such holder provides the required information to the IRS in a timely fashion. A holder of the securities may also be subject to information reporting to the IRS with respect to certain amounts paid to such holder unless it (1) provides a properly executed IRS Form W-8 (or other qualifying documentation) or (2) otherwise establishes a basis for exemption. If such withholding applies, we will not be required to pay any additional amounts with respect to amounts withheld.

PLACING AND SALE

General

We have not taken, and will not take, any action that would permit a public offering of the structured products or possession or distribution of any offering material in relation to the structured products in any jurisdiction where action for that purpose is required. No offers, sales 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 will not impose any obligation on us. In the event that we contemplate a placing, placing fees may be payable in connection with any issue and we may at our discretion allow discounts to placees.

United States of America

The structured products have not been and will not be registered under the U.S. Securities Act of 1933 (the "**Securities Act**"), or the securities laws of any state or other jurisdiction of the United States. The structured products may not be offered or sold or otherwise transferred, nor may transactions in such structured products be executed, at any time, within the United States or to, or for the account or benefit of, U.S. persons (as defined in Regulation S under the Securities Act ("**Regulation S**")), except in compliance with Regulation S. In purchasing the structured products you hereby warrant that you are not a U.S. person as defined in Regulation S and that you are not purchasing for, or for the account or benefit of, any such person. You further agree to resell such structured products only in accordance with the provisions of Regulation S, pursuant to registration under the Securities Act or another available exemption therefrom and agree not to engage in hedging transactions with respect to the structured products unless in compliance with the Securities Act. You acknowledge that any transfer of the structured products by you other than in compliance with the preceding sentence is prohibited and will not be effected to the fullest extent permitted by law.

European Economic Area

Each dealer represents and agrees, and each further dealer appointed in respect of the structured products will be required to represent and agree that, it has not offered, sold or otherwise made available and will not offer, sell, or otherwise make available any structured products which are the subject of the offering as contemplated by this Base Listing Document to any retail investor in the European Economic Area. For the purposes of this provision:

a) the expression "**retail investor**" means a person who is one (or more) of the following:

   i. a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or

   ii. a customer within the meaning of Directive 2016/97/EU (as amended, the Insurance Distribution Directive), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or

   iii. not a qualified investor as defined in Directive 2003/71/EC (as amended, including by Directive 2010/73/EU, the Prospectus Directive); and

b) the expression "**offer**" includes 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.

United Kingdom

Each dealer has represented and agreed, and each further dealer appointed in respect of the structured products will be required to represent and agree, that:

(a) in respect to structured products having a maturity of less than one year: (i) it is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business; and (ii) it has not offered or sold and will not offer or sell any structured products other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of the structured products would otherwise constitute a contravention of Section 19 of Financial Services and Markets Act, as amended (the "**FSMA**") by the Issuer;

(b) 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 FSMA) received by it in connection with the issue or sale of any structured products in circumstances in which section 21(1) of the FSMA does not apply to the Issuer; and

(c) it has complied with 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.

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 launch announcement and 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. At any given time, the number of our structured products outstanding may be substantial.

Repurchase of our structured products

We may repurchase structured products at any time 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 therefore make any assumption as to the number of structured products in issue at any time.

Our creditworthiness

If you purchase our structured products, you are relying upon our creditworthiness and have no rights under the structured products against:

(a) any company which issues the underlying shares;

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

(c) the index compiler of the underlying index.

We do not guarantee the repayment of your investment in any structured products. 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).

Any downgrading of our rating by our rating agencies could result in a reduction in the value of the structured products.

Swiss resolution proceedings and resolution planning requirements

Pursuant to Swiss banking laws, the Swiss bank resolution regime applies to a Swiss bank, such as us and to a Swiss parent company of a financial group, such as Credit Suisse Group AG, amongst others. Under such resolution regime, FINMA is able to exercise its broad statutory powers thereunder with respect to such entities, including its powers to order protective measures, institute restructuring proceedings (and exercise any Swiss resolution powers in connection therewith), and institute liquidation proceedings, if there is justified concern that such entity is over-indebted, has serious liquidity problems or, after the expiry of a deadline, no longer fulfils capital adequacy requirements.

Protective measures may include (a) giving instructions to our governing bodies, (b) appointing an investigating agent, (c) stripping our governing bodies of their power to legally represent us or remove them from office, (d) removing our regulatory or company-law audit firm from office, (e) limiting our business activities, (f) forbidding us to make or accept payments or undertake security trades, (g) closing us down, or (h) except for mortgage-secured receivables of central mortgage bond institutions, ordering a moratorium or deferral of payments. We will have limited ability to challenge any such protective measures. Additionally, creditors, including holders of structured products, would have no right under Swiss law and in Swiss courts to reject, seek the suspension of, or to challenge the imposition of any such protective measures.

Resolution powers that may be exercised during restructuring proceedings with respect to us include the power to (a) transfer the assets, or portions thereof, together with debt and other liabilities, or portions thereof, and contracts, to another entity, (b) stay (for a maximum of two business days) the termination of, and 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 such restructuring proceedings is a party, and/or (c) partially or fully convert into our equity and/or write-down our liabilities, including with respect to the structured products, if any. Creditors, including holders of the structured products, will have no right to reject, or to seek the suspension of, any restructuring plan pursuant to which such resolution powers are exercised with respect to us. Holders of structured products will have only limited rights to challenge any decision to exercise resolution powers with respect to us or to have that decision reviewed by a judicial or administrative process or otherwise.

We are currently subject to resolution planning requirements in Switzerland, the US and the UK and may face similar requirements in other jurisdictions. If a resolution plan is determined by the relevant authority to be inadequate, relevant regulations may allow the authority to place limitations on the scope or size of our business in that jurisdiction, require us to hold higher amounts of capital or liquidity, require us to divest assets or subsidiaries or to change our legal structure or business to remove the relevant impediments to resolution.

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

For a description of current resolution regime under Swiss banking laws as it applies to us and, to Credit Suisse Group AG, please refer to "Regulatory framework — Switzerland — Resolution Regime" under "Information on the Company — Regulation and Supervision" of the Credit Suisse Annual Report 2018.

Financial Institutions (Resolution) Ordinance

The Financial Institutions (Resolution) Ordinance (Cap. 628, the Laws of Hong Kong) (the "**FIRO**") was enacted by the Legislative Council of Hong Kong in June 2016. The FIRO (except Part 8, section 192 and Division 10 of Part 15 thereof) came into operation on 7 July 2017.

The FIRO provides a regime for the orderly resolution of financial institutions with a view to avoiding or mitigating the risks otherwise posed by their non-viability to the stability and effective working of the financial system of Hong Kong, including the continued performance of critical financial functions. The FIRO seeks to provide the relevant resolution authorities with a range of powers to bring about timely and orderly resolution in order to stabilise and secure continuity for a failing authorised institution in Hong Kong. In particular, it is envisaged that subject to certain safeguards, the relevant resolution authority would be provided with powers to affect contractual and property rights as well as payments (including in respect of any priority of payment) that creditors would receive in resolution, including but not limited to powers to write off, or convert into equity, all or a part of the liabilities of the failing financial institution.

As an authorised institution regulated by the Hong Kong Monetary Authority, we are subject to and bound by the FIRO. The exercise of any resolution power by the relevant resolution authority under the FIRO in respect of us may have a material adverse effect on the value of the structured products, and as a result, you may not be able to recover all or any amount due under the structured products.

No deposit liability or debt obligation

We are obliged to deliver to you the cash settlement amount or the entitlement (as the case may be) under the conditions applicable to the relevant structured products upon expiry or exercise. 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.

We are not the ultimate holding company of the group

We are not the ultimate holding company of the group to which we belong and with which our name is identified. The ultimate holding company of the group to which we belong is Credit Suisse Group AG.

Conflicts of interest

Credit Suisse Group AG constitutes a diversified financial services group with relationships in countries around the world. We engage 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, Credit Suisse Group AG, in connection with our other business activities, may possess or acquire material information about any underlying assets. Such activities and information may involve or otherwise affect the issuers of the underlying assets in a manner that may cause consequences adverse to you or otherwise create conflicts of interests in connection with our issue of structured products. Such actions and conflicts may include, without limitation, the exercise of voting power, the purchase and sale of securities, financial advisory relationships and exercise of creditor rights. Credit Suisse Group AG has no obligation to disclose such information about the underlying assets, baskets of shares and/or indices or such activities. Credit Suisse Group AG and our respective officers and directors may engage in any such activities without regard to our issue of structured products or the effect that such activities may directly or indirectly have on any structured product. In the ordinary course of our business, including without limitation in connection with us or our appointed liquidity provider's market making activities, Credit Suisse Group AG may effect transactions for our own account or for the account of our customers and hold long or short positions in the underlying assets or related derivatives. In addition, in connection with the offering of any structured product, we or any member of Credit Suisse Group AG may enter into one or more hedging transactions with respect to the underlying assets or related derivatives. In connection with such hedging or market making activities or with respect to proprietary or other trading activities by us or any member of Credit Suisse Group AG, we may enter into transactions in the underlying assets or related derivatives which may affect the market price, liquidity or value of the structured products and which may affect your interests in the structured products.

In particular, you should note that we issue a large number of financial instruments, including the structured products, on a global basis. The number of such financial instruments outstanding at any time may be substantial. We have substantially no obligation to any holder of the structured products other than to pay amounts in accordance with the applicable conditions and in the relevant launch announcement and supplemental listing document. We do not in any respect underwrite or guarantee the performance of any structured product. Any profit or loss realised by you in respect of a structured product upon exercise or otherwise due to changes in the value of such structured product, or the price or level of the underlying asset, is solely for your own account. In addition, we have the absolute discretion to put in place any hedging transaction or arrangement which we consider appropriate in connection with any structured products or the applicable underlying asset. A reduction in our rating, if any, accorded to our outstanding debt securities by any one of our rating agencies could result in a reduction in the trading value of the structured products.

General risks relating to structured products

You may lose all your investment in the structured product

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 or level of the underlying asset, the volatility of the underlying asset's price or level and the time remaining to expiry of the structured product.

The prices of structured products may fall in value as rapidly as they may rise and you should be prepared to sustain a significant or a total loss of your investment in the structured products. Assuming all other factors are held constant, the more the price or level of the underlying asset 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.

Our structured products are European style and they 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 (net of exercise expenses) 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 upon your investment in the structured products, you must generally be correct about the direction, timing and magnitude of an anticipated change in the price or level of the underlying asset.

Changes in the price or level of an underlying asset can be unpredictable, sudden and large and such changes may result in the price or 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 or 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 or level of the underlying assets

An investment in structured products is not the same as owning the underlying asset 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. For example, for a call warrant, it is possible that while the price or level of the underlying assets is increasing, the value of the structured product is falling.

You should recognise the risks of utilising structured products if you intend to purchase any series of structured products to hedge against the market risk associated with investing in the relevant underlying asset. The value of the structured products may not exactly correlate with the price or 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 in the price or level 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.

Furthermore, it may not be possible to liquidate the structured products at a price or level which directly reflects the price or level of the underlying asset or portfolio of which the underlying asset forms a part. You may therefore suffer substantial losses in the structured products notwithstanding any losses suffered with respect to investments in or exposures to any underlying assets.

Possible illiquidity of secondary market

It is not possible to predict:

(a) if and to what extent a secondary market may develop in any series of structured products;

(b) at what price such series of structured products will trade in the secondary market; and

(c) 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.

We intend to apply to list each series of structured products on the stock exchange. There can be no assurance that the listing of a series of structured products at the stock exchange can be maintained.

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 exercised or 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.

We, acting through our liquidity provider, may be the only market participant for the structured products. Therefore, the secondary market for the structured products may be limited. We and our liquidity provider may at any time purchase the structured products at any price in the open market or by tender or private agreement, subject to the requirements under the listing rules relating to the provision of liquidity, as described further in the relevant launch announcement and supplemental listing document. The more limited the secondary market is for any particular series of the structured products, the more difficult for you to realise the value of your structured products prior to the expiration date.

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.

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 rates 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 at the date of issue of any structured products will be representative of the 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 applicable 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 rates 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 the section headed “Taxation” for further information.

Modification to the conditions

Under the conditions, we may without your consent, effect any modification of terms and conditions of the structured products or the global certificate which, in our opinion, is:

(a) not materially prejudicial to the interests of the holder of the structured products generally (without considering the circumstances of any individual holder 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) is necessary in order to comply with any 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, it has become or it will become illegal or impracticable for us to perform our obligations under the structured products in whole or in part as a result of our compliance with any applicable law, we may terminate the structured products. In such event, we will, if and to the extent permitted by applicable law, pay an amount calculated by us in good faith and in a commercially reasonable manner to be the fair market value of the structured products prior to such termination notwithstanding the illegality or impracticability less our cost of unwinding any related hedging arrangements. Such amount 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:

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

(b) 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 the structured products involve valuation risk in relation to the relevant underlying asset. The price or 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 (where the underlying asset is a share), changes in computation or composition (where the underlying asset is an index), macro economic factors and market trends.

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

Certain events relating to the underlying asset 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. We may, in our sole discretion adjust, among other things, the entitlement, the exercise price, the call price (if applicable) or any other terms (including without limitation the average price or the closing level of the underlying asset) of any series of structured product. However, we are not required to adjust for every event that may affect an underlying asset, such as changes in computation or composition (where the underlying asset is an index), macro economic factors or market trends that affect the underlying asset, in which case the market price of the structured products, and the return upon the expiry of the structured products may be affected.

For structured products linked to an index, the index level may be published by the index compiler at a time when one or more components comprising the index are not trading. If this occurs on a valuation date and there is no market disruption event called under the conditions, then the closing level of the index may be calculated by the index compiler by reference to the remaining components. 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. You should note that in the case of a prolonged suspension period, the market price of the structured products will 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, 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 a company has occurred at any relevant time or that adjustments are required in accordance with the conditions.

The relevant settlement amount may change significantly during any such period, and such movement or movements could decrease or modify the settlement amount.

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 action 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

In the case of structured products linked to 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 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 one 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.

*ETF investing through RQFII and/or China Connect ("**China ETF**")*

Where the underlying asset comprises the units of a China ETF issued and traded outside Mainland China with direct investment in the Mainland China's securities markets through the RMB Qualified Foreign Institutional Investor (**RQFII**) regime and/or the Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect (collectively, "**China Connect**"), you should note that, amongst others:

(a) the novelty and untested nature of China Connect make China ETFs riskier than traditional ETFs investing directly in more developed markets. The policy and rules for RQFII and China Connect 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 China ETFs and the trading price of the relevant units;

(b) a China ETF primarily invests in securities traded in the Mainland China's securities markets and is subject to concentration risk. Investment in the Mainland China's securities 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 a China ETF may also be affected by interventions by the applicable government(s) and regulators in the financial markets; and

(c) investment by a China ETF in the Mainland China's securities markets under the RQFII regime will be subject to its manager's RQFII quota allocated to such China ETF. In addition, trading of securities invested by the China ETF under the China Connect will be subject to a daily quota which does not belong to such China ETF and is utilised on a first-come-first-serve basis. In the event that the RQFII quota allocated to such China ETF and/or the daily quota under China Connect are reached, the manager may need to suspend creation of further units of such China ETF, and therefore may affect liquidity in unit trading of such China ETF. In such event, the trading price of a unit of such China 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 China ETF and hence the market price of structured products linked to such China ETF.

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

ETF traded through dual counters model

Where the underlying asset 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 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 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 prices 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 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 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 REIT and hence the market price of structured products linked to such REIT.

Risks relating to our warrants

Time decay

The settlement amount of a series of warrants at any time prior to expiration may be less than the trading price of such warrants at that time. The difference between the trading price or level and the settlement amount will reflect, among other things, a "time value" of the warrants. The "time value" of the warrants will depend upon, among others, the length of the period remaining to expiration and expectations concerning the range of possible future price or level of the underlying assets. The value of the warrants is likely to decrease over time.

Therefore, the warrants should not be viewed as products for long term investments.

Risks relating to our CBBCs

You may lose all or substantially all of your investment upon the occurrence of a mandatory call event

CBBCs are not suitable for all types of investors. You should not invest in the CBBCs unless you understand the nature of the CBBCs and are prepared to lose all or substantially all of your investment in the CBBCs. The CBBCs will be terminated upon the occurrence of a mandatory call event and you will not be able to benefit from your investment in the CBBCs even if the performance of the underlying asset recovers subsequent to the occurrence of the mandatory call event. When a mandatory call event occurs, payoff for a category N CBBC will be zero and for a category R CBBC, you may lose all of your investment or receive a small amount of residual value payment. Please refer to the section headed "Overview of CBBCs" for more information.

Correlation between the price of a CBBC and the price or level of the underlying asset

When the underlying asset of a CBBC is trading at a price or level close to its call price or 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 with the change in the price or level of the underlying asset.

Mandatory call event is irrevocable

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 the stock exchange (such as the setting up of wrong call price or 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 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 no later than the time specified in the relevant launch announcement and supplemental listing document or such other time as prescribed 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.

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 upon the occurrence of a mandatory call event. You must however be aware that there may be delay in the announcement 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.

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, the resumption of trading of the CBBCs or reinstatement of any post MCE trades cancelled as a result of the reversal of any mandatory call event, notwithstanding that such trading suspension and/or non-recognition of post MCE trades occur as a result of an error in the observation of the event.

Residual value will not include residual funding cost

In respect of 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.

Our hedging activities may adversely affect the price or 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 or 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 any of 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 or any of 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

Our or our affiliates' trading and/or hedging activities related to CBBCs and/or other financial instruments issued by us from time to time may have an impact on the price or 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 or the call level, our unwinding activities may cause a fall or rise (as the case may be) in the trading price or 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 or level of the underlying asset and consequently the residual value for the CBBCs.

Possible early termination for hedging disruption

If we determine that a hedging disruption event has occurred, we may at our absolute discretion terminate the CBBCs. In such event, we will, if and to the extent permitted by applicable law, pay an amount calculated by us to be the fair market value of the CBBCs prior to such termination less our cost of unwinding any related hedging arrangements.

Risks relating to the legal form of the structured products

Each series of structured products will be issued in global registered form and 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 CCASS participant).

The register for the relevant structured products will only record at all times that 100% of such structured products are held by HKSCC Nominees Limited, being the only legal owner. The evidence of your title, as well as the efficiency of ultimate delivery of the cash settlement amount (if any) under the structured products, will be subject to the CCASS Rules.

You should be aware of the following risks:

(a) you will not receive any definitive certificates representing your beneficial interests in the structured products;

(b) you may only refer to the records of CCASS or their brokers/custodians and the statements you receive to determine your beneficial interest in the structured products;

(c) any notices, announcements and/or information relating to meetings in respect of the structured products will only be delivered to you through the CCASS participants in accordance with the General Rules of CCASS and the CCASS Operational Procedures in effect from time to time; and

(d) our obligations under the conditions of the structured products will be duly performed by the payment of the cash settlement amount to HKSCC Nominees Limited as the registered holder of the structured products, all in accordance with the General Rules of CCASS and the CCASS Operational Procedures in effect from time to time.

Fee arrangements with brokers and conflicts of interest of brokers

We may enter into fee arrangements with brokers and/or any of their affiliates with respect to the placement of the structured products in the primary market. 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 of 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.

GENERAL INFORMATION ABOUT US

Incorporation, registered office and objective

We were established on 5 July 1856 and registered in the Commercial Register of the Canton of Zurich on 27 April 1883 for an unlimited duration under the name of Schweizerische Kreditanstalt. Our name was changed to Credit Suisse First Boston on 11 December 1996 (by entry in the Commercial Register), effective as of 1 January 1997. On 13 May 2005 the Swiss banks Credit Suisse First Boston and Credit Suisse merged. Credit Suisse First Boston was the surviving legal entity, and its name was changed to Credit Suisse by entry into the commercial register. Our name was further changed to Credit Suisse AG, effective as of 9 November 2009. We are a joint stock corporation established under Swiss law. As of 31 December 2018, our share capital amounted to CHF 4,399,680,200, which was divided into 4,399,680,200 fully paid-up registered shares with a par value of CHF 1 each.

Members of our board of directors as of 11 April 2019*

Name	Office held
Urs Rohner	Chairman
Iris Bohnet Zürcher	Director
Andreas Peter Gottschling	Director
Rainer Alexander Paul Gut	Director
Michael Klein	Director
Andreas Niklaus Koopmann	Director
Seraina Macia	Director
Kaikhushru Shiavax Nargolwala	Director
Ana Paula Pessoa	Director
Joaquin Joseph Ribeiro	Director
Severin Anton Schwan	Director
John Ivan Tiner	Director

* *The composition of the boards of directors of Credit Suisse Group AG and Credit Suisse AG is identical.*

ERISA matters

We and certain of our affiliates may each be considered a "party in interest" within the meaning of the Employee Retirement Income Security Act of 1974, as amended (**ERISA**), or a "disqualified person" within the meaning of the United States Internal Revenue Code of 1986, as amended (the **code**) with respect to many employee benefit plans and individual retirement accounts, Keoghs and other plans subject to section 4975 of the code.

Certain transactions between an employee benefit plan and a party in interest or disqualified person may result in "prohibited transactions" within the meaning of ERISA and the code. Accordingly, structured products may not be purchased or held with the assets of (a) an "employee benefit plan" as defined in section 3(3) of ERISA, (b) a "plan" as defined in section 4975 of the code, or (c) an entity whose underlying assets include "plan assets" under US Department of Labor Regulation 29 CFR section 2510.3-101.

Credit Suisse Group AG and Credit Suisse AG

The United States Securities and Exchange Commission ("**SEC**") filings of Credit Suisse Group AG (the "**Group**") and Credit Suisse AG ("**CS**"), which may contain their annual and current reports, including interim financial information, or other relevant information, are filed with the SEC from time to time. The SEC filings of the Group and CS are available on the SEC's website at www.sec.gov and on the Group's website at https://www.credit-suisse.com/corporate/en/investor-relations/financial-and-regulatory-disclosures.html.

APPENDIX 1 — GENERAL CONDITIONS OF THE STRUCTURED PRODUCTS

These General Conditions relate to each series of Structured Products and must be read in conjunction with, and are subject to, the relevant Product Conditions set out in Appendix 2 and Appendix 3 to this Base Listing Document and the relevant Launch Announcement and Supplemental Listing Document in relation to the particular series of Structured Products. These General Conditions, the relevant Product Conditions and the supplemental provisions contained in the relevant Launch Announcement and Supplemental Listing Document together constitute the Conditions of the relevant Structured Products, and will be endorsed on the Global Certificate representing the relevant Structured Products. The relevant Launch Announcement and Supplemental Listing Document in relation to the issue of any series of Structured Products may specify additional terms and conditions which shall, to the extent so specified or to the extent inconsistent with these General Conditions and the relevant Product Conditions, replace or modify these General Conditions and the relevant Product Conditions for the purpose of such series of Structured Products.

1. Definitions

"**Applicable Law**" means any applicable present or future law, rule, regulation, judgment, order or directive of any governmental, administrative, legislative or judicial authority or power;

"**Base Listing Document**" means the base listing document relating to Structured Products dated 12 April 2019 and issued by the Issuer (including any addenda to such base listing document issued by the Issuer from time to time);

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

"**Cash Settlement Amount**" has the meaning given to it in the relevant Product Conditions;

"**CCASS**" means the Central Clearing and Settlement System established and operated by Hong Kong Securities Clearing Company Limited;

"**CCASS Rules**" means the General Rules of CCASS and the CCASS Operational Procedures in effect from time to time;

"**CCASS Settlement Date**" has the meaning ascribed to the term "Settlement Date" in the CCASS Rules, subject to such modification and amendment presented by Hong Kong Securities Clearing Company Limited from time to time;

"**Conditions**" means, in respect of a particular series of Structured Products, these General Conditions and the applicable Product Conditions;

"**CS Hong Kong**" means Credit Suisse (Hong Kong) Limited, which expression shall include any successors to Credit Suisse (Hong Kong) Limited for the purposes of maintaining the Register;

"**Global Certificate**" means, in respect of the relevant Structured Products, a global certificate by way of deed poll dated the Issue Date executed by the Issuer;

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

"**Holder**" means, in respect of each series of Structured Products, each person who is for the time being shown in the Register as entitled to a particular number of Structured Products and such person shall be treated by the Issuer and CS Hong Kong as the absolute owner and holder of such number of Structured Products;

"**Hong Kong**" means the Hong Kong Special Administrative Region of the People's Republic of China;

"**Issue Date**" means the date specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Issuer**" means Credit Suisse AG;

"**Launch Announcement and Supplemental Listing Document**" means the launch announcement and supplemental listing document relating to a particular series of Structured Products;

"**Product Conditions**" means, in respect of each series of Structured Product, the product specific terms and conditions that apply to that Structured Product;

"**Register**" means the register in respect of the Structured Products maintained by the Registrar under General Condition 3;

"**Register Maintenance Agreement**" means:

(a) in respect of Warrants and CBBCs, the base register maintenance and structured product agency agreement (as amended, varied or supplemented from time to time or any successor document) dated 23 April 2003 as supplemented by a Confirmation (as defined in such Register Maintenance Agreement) relating to the Structured Products made between, inter alias, the Issuer and CS Hong Kong; or

(b) in respect of other structured products, the agreement specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Registrar**" means CS Hong Kong or such other party as specified in the relevant Launch Announcement and Supplemental Listing Document;

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

"**Structured Products**" means derivative warrants ("**Warrants**"), callable bull/bear contracts ("**CBBCs**") and other structured products to be issued by the Issuer from time to time. References to "**Structured Products**" are to be construed as references to a particular series of Structured Products and, unless the context otherwise requires, include any further Structured Products issued pursuant to General Condition 9; and

"**Transfer Office**" means the specified office of CS Hong Kong or such other office as specified in the relevant Launch Announcement and Supplemental Listing Document.

2. Form, Status and Transfer

2.1 ***Form***

The Structured Products are issued in registered form subject to and with the benefit of the Global Certificate and the relevant Register Maintenance Agreement. Copies of the Global Certificate and the relevant Register Maintenance Agreement are available for inspection at the Transfer Office.

The Holders are entitled to the benefit of, are bound by and are deemed to have notice of, all the provisions of the Global Certificate and the relevant Register Maintenance Agreement.

2.2 ***Status***

The Structured Products represent general, unsecured, contractual obligations of the Issuer and of no other person and rank pari passu among themselves and (save for certain obligations required to be preferred by law) equally with all other unsecured obligations of the Issuer.

2.3 ***Transfer***

Transfers of beneficial interests in the Structured Products may be effected only in Board Lots or integral multiples thereof in CCASS in accordance with the CCASS Rules.

3. Register and Transfer Office

3.1 ***Maintenance of Register***

(a) In respect of each series of Structured Products, the Registrar will maintain a Register for that series.

The Issuer reserves the right, subject to the appointment of a successor, at any time to vary or terminate the appointment of the Registrar under the relevant Register Maintenance Agreement provided that it will at all times maintain or arrange for the maintenance of a Register.

Notice of any such termination or appointment and any change in the Transfer Office or the specified office of CS Hong Kong will be given to the Holders in accordance with General Condition 7.

(b) The Registrar will enter or cause to be entered the name, address and banking details of the Holders, the details of the relevant series of Structured Products held by any Holder including the number of Structured Products held, and any other particulars which it thinks proper.

(c) The Register will be maintained by the Registrar:

(i) in respect of a series of Warrants and CBBCs, in Hong Kong; and

(ii) in respect of other Structured Products, at such location as the Issuer and the Registrar may agree and specified in the relevant Launch Announcement and Supplemental Listing Document.

3.2 ***Registrar is the agent of the Issuer***

The Registrar for each series of Structured Products will be acting as the agent of the Issuer and will not assume any obligation or duty to or any relationship of agency or trust for the Holders.

4. Purchases

The Issuer and/or any of its respective affiliates may at any time purchase Structured Products at any price in the open market or by tender or by private treaty. Any Structured Products so purchased may be held or resold or surrendered for cancellation.

5. Global Certificate

Each series of the Structured Products is represented by a Global Certificate registered in the name of HKSCC Nominees Limited and deposited with CCASS in accordance with the CCASS Rules. Holders will not be entitled to definitive certificates in respect of any Structured Products issued or transferred to them.

6. Meetings of Holders and Modifications to Conditions

6.1 *Meetings of Holders*

The relevant Register Maintenance Agreement contains provisions for the convening of meetings of the Holders to consider any matter affecting their interests, including sanctioning by Extraordinary Resolution (as defined in the relevant Register Maintenance Agreement) of a modification of the provisions of the Structured Products or of the Global Certificate.

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 Structured Products 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 Structured Products for the time being remaining unexercised, or at any adjourned meeting two or more persons being or representing Holders whatever the number of Structured Products 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 as, 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.

6.2 *Modification*

The Issuer may, without the consent of the Holders, effect any modification of the terms and conditions of the Structured Products or the Global Certificate which, in the opinion of the Issuer, is:

(a) 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);

(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.

Any such modification shall be binding on the Holders and shall be notified to them by CS Hong Kong as soon as practicable thereafter in accordance with General Condition 7.

7. Notices

All notices to Holders will be validly given if published in English and in Chinese on the website of HKEX. Such notices shall be deemed to have been given on the date of the first such publication. If publication is not practicable, notice will be given in such other manner as the Issuer may determine.

8. Illegality or Impracticability

The Issuer is entitled to terminate the Structured Products 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:

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

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

   (ii) 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 (i) and (ii), a "**Change in Law Event**"); or

(b) for it or any of its affiliates to maintain the Issuer's hedging arrangements with respect to the Structured Products 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 Structured Product 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 Holders in accordance with General Condition 7.

9. Further Issues

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

10. Good Faith and Commercially Reasonable Manner

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

11. Contracts (Rights of Third Parties) Ordinance

A person who is not a party to the 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 Structured Products.

12. Governing Law

The Structured Products, the Global Certificate and the relevant Register Maintenance Agreement will be governed by and construed in accordance with the laws of Hong Kong.

The Issuer and each Holder (by its purchase of the Structured Products) shall be deemed to have submitted for all purposes in connection with the Structured Products, the Global Certificate and the relevant Register Maintenance Agreement to the non-exclusive jurisdiction of the courts of Hong Kong.

13. Language

In the event of any inconsistency between the Chinese translation and the English version of these General Conditions and/or the applicable Product Conditions, the English version of these General Conditions and/or the applicable Product Conditions shall prevail.

APPENDIX 2 — PRODUCT CONDITIONS OF THE WARRANTS

PART A — PRODUCT CONDITIONS OF CALL/PUT WARRANTS OVER SINGLE EQUITIES (CASH SETTLED)

These Product Conditions will, together with the General Conditions and the supplemental provisions contained in the relevant Launch Announcement and Supplemental Listing Document and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Launch Announcement and Supplemental Listing Document in relation to the issue of any series of Warrants may specify additional terms and conditions which shall, to the extent so specified or to the extent inconsistent with these Product Conditions, replace or modify these Product Conditions for the purpose of such series of Warrants. Capitalised terms used in these Product Conditions and not otherwise defined herein shall have the meaning given to them in the General Conditions and the relevant Launch Announcement and Supplemental Listing Document.

1. Definitions

For the purposes of these Product 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 Product Condition 4 such as capitalisation, rights issue, distribution or the like in respect of each Valuation Date;

"**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, in respect of every Board Lot, an amount in the Settlement Currency calculated by the Issuer as:

(a) in the case of a series of call Warrants:

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

(b) in the case of a series of put Warrants:

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

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

"**Designated Bank Account**" means the relevant bank account designated by the relevant Holder;

"**Entitlement**" means the number specified as such in the relevant Launch Announcement and Supplemental Listing Document, subject to any adjustment in accordance with Product Condition 4;

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

"**Exercise Price**" means the price specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Expiry Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**General Conditions**" means the general terms and conditions of Structured Products set out in Appendix 1 of the Base Listing Document;

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

"**Market Disruption Event**" means:

(a) 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 (i) the Shares; or (ii) 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;

(b) 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

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

"**Number of Warrant(s) per Entitlement**" means the amount specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Product Conditions**" means these product terms and conditions. These Product Conditions apply to each series of cash settled call/put Warrants over single equities;

"**Settlement Currency**" means the currency specified as such in the relevant Launch Announcement and 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;

"**Settlement Disruption Event**" means an event beyond the control of the Issuer as a result of which the Issuer is unable to procure payment of the Cash Settlement Amount electronically through CCASS to the Designated Bank Account;

"**Shares**" means the shares of the Company specified as such in the relevant Launch Announcement and 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 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.

2. Warrant Rights and Exercise Expenses

2.1 ***Warrant Rights***

Every Board Lot gives each Holder, upon due exercise and compliance with the General Conditions and these Product Conditions, in particular, Product Condition 3, the right to receive the payment of the Cash Settlement Amount (net of any Exercise Expenses), if any.

2.2 ***Exercise Expenses***

Upon exercise of the Warrants, Holders will be obliged to give an irrevocable authorisation to the Issuer to deduct all Exercise Expenses in accordance with Product Condition 3.

3. Exercise of Warrants

3.1 ***Exercise of Warrants in Board Lots***

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

3.2 ***Automatic Exercise***

Any Warrant will be deemed to be automatically exercised if the Cash Settlement Amount on the Expiry Date is greater than zero (without notice being given to the Holders). The Holders will not be required to deliver any exercise notice and the Issuer or its agent will pay to the Holders the Cash Settlement Amount (net of any Exercise Expenses) (if any) in accordance with Product Condition 3.4.

Any Warrant which has not been automatically exercised in accordance with this Product Condition shall expire immediately without value thereafter and all rights of the Holder and obligations of the Issuer with respect to such Warrant shall cease.

3.3 ***Cancellation***

The Issuer will procure that CS Hong Kong will, with effect from the first Business Day following the Expiry Date, remove from the Register the name of the person in respect of the Warrants which (i) are the subject of a valid exercise pursuant to automatic exercise in accordance with these Product Conditions; or (ii) have expired worthless, and thereby cancel the relevant Warrants.

3.4 ***Cash Settlement***

Subject to automatic exercise of Warrants in accordance with these Product Conditions, the Issuer will make a payment in respect of every Board Lot to the relevant Holder equal to the Cash Settlement Amount (net of any Exercise Expenses). If the Cash Settlement Amount is equal to or less than the Exercise Expense, no amount is payable by the Issuer.

The Cash Settlement Amount shall be despatched not later than the Settlement Date by crediting that amount in accordance with the CCASS Rules to the Designated Bank Account.

If, as a result of a 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 the Settlement Disruption Event.

4. Adjustments

4.1 ***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 will 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:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

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

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 Shares are traded on a cum-Rights basis

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

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 adjustment to be made would result in the Entitlement being changed by one per cent. or less, 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 Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment shall take effect on the Rights Issue Adjustment Date.

For the purposes of these Product 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).

4.2 ***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 will be adjusted 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 Factor x E

Where:

Adjustment Factor = 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 existing Shares for each Share held prior to the Bonus Issue

Provided that if the adjustment to be made would result in the Entitlement being changed by one per cent. or less, 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 Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment shall take effect on the Bonus Issue Adjustment Date.

4.3 ***Subdivisions or 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:

(a) 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

(b) 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.

4.4 ***Merger or Consolidation***

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 any corporation 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).

The rights attaching to the Warrants after the adjustment 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. 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 Product Condition 4.4 and, where cash is offered in substitution for Shares or is deemed to replace Substituted Securities as described above, references in these Product Conditions to the Shares shall include any such cash.

4.5 ***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 ("**Cash Distribution Adjustment Date**") in accordance with the following formula:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

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

E: The existing Entitlement immediately prior to the Cash Distribution

S: The closing price of the existing Share as derived from the daily quotation sheet of the Stock Exchange on the Business Day immediately preceding the Cash Distribution Adjustment Date

CD: The amount of Cash Distribution per Share

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

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

4.6 ***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:

(a) 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

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

4.7 ***Notice of Determinations***

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 or amendment and of the date from which such adjustment or amendment is effective by publication in accordance with General Condition 7.

5. 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 Hong Kong 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, 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.

6. Delisting

6.1 If at any time the Shares cease to be listed on the Stock Exchange, the Issuer shall give effect to the General Conditions and these Product Conditions in such manner and make such adjustments 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 Holders generally are not materially prejudiced as a consequence of such delisting (without considering the individual circumstances of any Holder or the tax or other consequences that may result in any particular jurisdiction).

6.2 Without prejudice to the generality of Product Condition 6.1, where the Shares are, or, upon the delisting, become, listed on any other stock exchange, the General Conditions and these Product 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 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.

6.3 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 General Condition 7, as soon as practicable after they are determined.

PART B — PRODUCT CONDITIONS OF INDEX CALL/PUT WARRANTS (CASH SETTLED)

These Product Conditions will, together with the General Conditions and the supplemental provisions contained in the relevant Launch Announcement and Supplemental Listing Document and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Launch Announcement and Supplemental Listing Document in relation to the issue of any series of Warrants may specify additional terms and conditions which shall, to the extent so specified or to the extent inconsistent with these Product Conditions, replace or modify these Product Conditions for the purpose of such series of Warrants. Capitalised terms used in these Product Conditions and not otherwise defined herein shall have the meaning given to them in the General Conditions and the relevant Launch Announcement and Supplemental Listing Document.

1. Definitions

For the purposes of these Product Conditions:

"**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, in respect of every Board Lot:

(a) in respect of a series of call Warrants:

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

either converted (if applicable) (i) into the Settlement Currency at the Exchange Rate or, as the case may be, (ii) into the Interim Currency at the First Exchange Rate and then converted into the Settlement Currency at the Second Exchange Rate;

(b) in respect of a series of put Warrants:

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

either converted (if applicable) (i) into the Settlement Currency at the Exchange Rate or, as the case may be, (ii) into the Interim Currency at the First Exchange Rate and then converted into the Settlement Currency at the Second Exchange Rate;

"**Closing Level**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document, subject to the adjustment in accordance with Product Condition 4;

"**Designated Bank Account**" means the relevant bank account designated by the relevant Holder;

"**Divisor**" means the amount specified as such in the relevant Launch Announcement and Supplemental Listing Document;

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

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

"**Expiry Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

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

"**General Conditions**" means the general terms and conditions of Structured Products set out in Appendix 1 of the Base Listing Document;

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

"**Index Compiler**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

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

"**Index Exchange**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

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

"Listing Date" means the date specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Market Disruption Event**" means:

(a) 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:

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

    (ii) 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

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

    for the purposes of paragraph (a), (i) 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 (ii) 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; or

(b) 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; or

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

(d) 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 the Conditions or in such other manner as the Issuer considers appropriate at such time after taking into account all the relevant circumstances;

"**Price Source**", if applicable, has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**Product Conditions**" means these product terms and conditions. These Product Conditions apply to each series of cash settled index call/put Warrants;

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

"**Settlement Currency**" means the currency specified as such in the relevant Launch Announcement and 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;

"**Settlement Disruption Event**" means an event beyond the control of the Issuer as a result of which the Issuer is unable to procure payment of the Cash Settlement Amount electronically through CCASS to the Designated Bank Account;

"**Strike Level**" means the level specified as such in the relevant Launch Announcement and Supplemental Listing Document, subject to adjustment in accordance with Product Condition 4; and

"**Valuation Date**" means the Expiry Date, provided that 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.

2. Warrant Rights and Exercise Expenses

2.1 *Warrant Rights*

Every Board Lot gives each Holder, upon due exercise and compliance with the General Conditions and these Product Conditions, in particular, Product Condition 3 the right to receive the payment of the Cash Settlement Amount (net of any Exercise Expenses), if any.

2.2 *Exercise Expenses*

Upon exercise of the Warrants, Holders will be obliged to give an irrevocable authorisation to the Issuer to deduct all Exercise Expenses in accordance with Product Condition 3.

3. Exercise of Warrants

3.1 *Exercise of Warrants in Board Lots*

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

3.2 ***Automatic Exercise***

Any Warrant will be deemed to be automatically exercised if the Cash Settlement Amount on the Expiry Date is greater than zero (without notice being given to the Holders). The Holders will not be required to deliver any exercise notice and the Issuer or its agent will pay to the Holders the Cash Settlement Amount (net of any Exercise Expenses) (if any) in accordance with Product Condition 3.4.

Any Warrant which has not been automatically exercised in accordance with this Product Condition shall expire immediately without value thereafter and all rights of the Holder and obligations of the Issuer with respect to such Warrant shall cease.

3.3 ***Cancellation***

The Issuer will procure that CS Hong Kong will, with effect from the first Business Day following the Expiry Date, remove from the Register the name of the person in respect of the Warrants which (i) are the subject of a valid exercise pursuant to automatic exercise in accordance with these Product Conditions; or (ii) have expired worthless, and thereby cancel the relevant Warrants.

3.4 ***Cash Settlement***

Subject to automatic exercise of Warrants in accordance with these Product Conditions, the Issuer will make a payment in respect of every Board Lot to the relevant Holder equal to the Cash Settlement Amount (net of any Exercise Expenses). If the Cash Settlement Amount is equal to or less than the Exercise Expense, no amount is payable by the Issuer.

The Cash Settlement Amount shall be despatched not later than the Settlement Date by crediting that amount in accordance with the CCASS Rules to the Designated Bank Account.

If as a result of a 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 the Settlement Disruption Event.

4. Adjustments to the Index

4.1 ***Successor Index Compiler Calculates and Reports Index***

If the Index is (a) 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 (b) 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.

4.2 ***Modification and Cessation of Calculation of Index***

If:

(a) 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 stock, contracts or commodities and other routine events); or

(b) 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 on the Valuation Date using, in lieu of a published level for the Index, the level for the Index as at that 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/commodities that comprised the Index immediately prior to that change or failure.

4.3 ***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:

(a) 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

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

4.4 ***Notice of Determinations***

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 or amendment and of the date from which such adjustment or amendment is effective by publication in accordance with General Condition 7.

PART C — PRODUCT CONDITIONS OF CALL/PUT WARRANTS OVER SINGLE UNIT TRUSTS (CASH SETTLED)

These Product Conditions will, together with the General Conditions and the supplemental provisions contained in the relevant Launch Announcement and Supplemental Listing Document and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Launch Announcement and Supplemental Listing Document in relation to the issue of any series of Warrants may specify additional terms and conditions which shall, to the extent so specified or to the extent inconsistent with these Product Conditions, replace or modify these Product Conditions for the purpose of such series of Warrants. Capitalised terms used in these Product Conditions and not otherwise defined herein shall have the meaning given to them in the General Conditions and the relevant Launch Announcement and Supplemental Listing Document.

1. Definitions

For the purposes of these Product 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 any event as contemplated in Product Condition 4 such as capitalisation, rights issue, distribution or the like in respect of each Valuation Date;

"**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, in respect of every Board Lot, an amount in the Settlement Currency calculated by the Issuer as:

(a) in the case of a series of call Warrants:

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

(b) in the case of a series of put Warrants:

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

"**Designated Bank Account**" means the relevant bank account designated by the relevant Holder;

"**Entitlement**" means the number specified as such in the relevant Launch Announcement and Supplemental Listing Document, subject to any adjustment in accordance with Product Condition 4;

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

"**Exercise Price**" means the price specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Expiry Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**General Conditions**" means the general terms and conditions of Structured Products set out in Appendix 1 of the Base Listing Document;

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

"**Market Disruption Event**" means:

(a) 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: (i) the Units; or (ii) 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; or

(b) 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

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

"**Number of Warrant(s) per Entitlement**" means the amount specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Product Conditions**" means these product terms and conditions. These Product Conditions apply to each series of cash settled call/put Warrants over single unit trusts;

"**Settlement Currency**" means the currency specified as such in the relevant Launch Announcement and 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;

"**Settlement Disruption Event**" means an event beyond the control of the Issuer as a result of which the Issuer is unable to procure payment of the Cash Settlement Amount electronically through CCASS to the Designated Bank Account;

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

"**Unit**" means the unit specified as such in the relevant Launch Announcement and 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.

2. Warrant Rights and Exercise Expenses

2.1 ***Warrant Rights***

Every Board Lot gives each Holder, upon due exercise and compliance with the General Conditions and these Product Conditions, in particular, Product Condition 3, the right to receive the payment of the Cash Settlement Amount (net of any Exercise Expenses), if any.

2.2 ***Exercise Expenses***

Upon exercise of the Warrants, Holders will be obliged to give an irrevocable authorisation to the Issuer to deduct all Exercise Expenses in accordance with Product Condition 3.

3. Exercise of Warrants

3.1 ***Exercise of Warrants in Board Lots***

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

3.2 ***Automatic Exercise***

Any Warrant will be deemed to be automatically exercised if the Cash Settlement Amount on the Expiry Date is greater than zero (without notice being given to the Holders). The Holders will not be required to deliver any exercise notice and the Issuer or its agent will pay to the Holders the Cash Settlement Amount (net of any Exercise Expenses) (if any) in accordance with Product Condition 3.4.

Any Warrant which has not been automatically exercised in accordance with this Product Condition shall expire immediately without value thereafter and all rights of the Holder and obligations of the Issuer with respect to such Warrant shall cease.

3.3 ***Cancellation***

The Issuer will procure that CS Hong Kong will, with effect from the first Business Day following the Expiry Date, remove from the Register the name of the person in respect of the Warrants which (i) are the subject of a valid exercise pursuant to automatic exercise in accordance with these Product Conditions; or (ii) have expired worthless, and thereby cancel the relevant Warrants.

3.4 ***Cash Settlement***

Subject to automatic exercise of Warrants in accordance with these Product Conditions, the Issuer will make a payment in respect of every Board Lot to the relevant Holder equal to the Cash Settlement Amount (net of any Exercise Expenses). If the Cash Settlement Amount is equal to or less than the Exercise Expense, no amount is payable by the Issuer.

The Cash Settlement Amount shall be despatched not later than the Settlement Date by crediting that amount in accordance with the CCASS Rules, to the Designated Bank Account.

If, as a result of a 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 the Settlement Disruption Event.

4. Adjustments

4.1 ***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 will 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:

$$\text{Adjustment Entitlement} = \text{Adjustment Factor} \times E$$

Where:

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

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 on 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 as specified in the Rights Offer plus an amount equal to any distributions or other benefits foregone to exercise the Rights

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 adjustment to be made would result in the Entitlement being changed by one per cent. or less, 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 Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment shall take effect on the Rights Issue Adjustment Date.

For the purposes of these Product 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).

4.2 ***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 will be adjusted on the Business Day on which trading in the Units of the Trust becomes ex-entitlement ("**Bonus Issue Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Factor x E

Where:

Adjustment Factor = 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 existing Units for each Unit held prior to the Bonus Issue

Provided that if the adjustment to be made would result in the Entitlement being changed by one per cent. or less, 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 Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment shall take effect on the Bonus Issue Adjustment Date.

4.3 ***Subdivisions or 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:

(a) 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

(b) 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.

4.4 ***Merger or Consolidation***

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 trust 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).

The rights attaching to the Warrants after the adjustment 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. 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 Product Condition 4.4 and, where cash is offered in substitution for Units or is deemed to replace Substituted Securities as described above, references in these Product Conditions to the Units shall include any such cash.

4.5 ***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 ("**Cash Distribution Adjustment Date**") in accordance with the following formula:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

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

E: The existing Entitlement immediately prior to the Cash Distribution

S: The closing price of an existing Unit as derived from the daily quotation sheet of the Stock Exchange on the Business Day immediately preceding the Cash Distribution Adjustment Date.

CD: The amount of Cash Distribution per Unit

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

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

4.6 ***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:

(a) 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

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

4.7 ***Notice of Determinations***

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 or amendment and of the date from which such adjustment or amendment is effective by publication in accordance with General Condition 7.

5. Termination or Liquidation

5.1 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 Hong Kong 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, 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.

5.2 For the purpose of this Product Condition 5, "**Termination**" means (a) 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; (b) the Trust is held or is conceded by the Trustee or the Manager not to have been constituted or to have been imperfectly constituted; (c) 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 (d) the Trust ceases to be authorised as an authorised collective investment scheme under the Securities and Futures Ordinance (Cap 571, The Laws of Hong Kong).

6. Delisting

6.1 If at any time the Units cease to be listed on the Stock Exchange, the Issuer shall give effect to the General Conditions and these Product Conditions in such manner and make such adjustments 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 Holders generally are not materially prejudiced as a consequence of such delisting (without considering the individual circumstances of any Holder or the tax or other consequences that may result in any particular jurisdiction).

6.2 Without prejudice to the generality of Product Condition 6.1, where the Units are, or, upon the delisting, become, listed on any other stock exchange, the General Conditions and these Product 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 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.

6.3 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 General Condition 7, as soon as practicable after they are determined.

PART D — PRODUCT CONDITIONS OF CALL/PUT WARRANTS OVER SINGLE FOREIGN EQUITIES (CASH SETTLED)

These Product Conditions will, together with the General Conditions and the supplemental provisions contained in the relevant Launch Announcement and Supplemental Listing Document and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Launch Announcement and Supplemental Listing Document in relation to the issue of any series of Warrants may specify additional terms and conditions which shall, to the extent so specified or to the extent inconsistent with these Product Conditions, replace or modify these Product Conditions for the purpose of such series of Warrants. Capitalised terms used in these Product Conditions and not otherwise defined herein shall have the meaning given to them in the General Conditions and the relevant Launch Announcement and Supplemental Listing Document.

1. Definitions

For the purposes of these Product Conditions:

"**Average Price**" means the arithmetic mean of the official closing prices of one Share, subject to any adjustment to such closing prices as may be necessary to reflect any event as contemplated in Product Condition 4 such as capitalisation, rights issue, distribution or the like in respect of each Valuation Date;

"**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, in respect of every Board Lot, an amount in the Settlement Currency calculated by the Issuer as:

(a) in the case of a series of call Warrants:

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

(if applicable) converted from Underlying Currency into the Settlement Currency at the Exchange Rate

(b) in the case of a series of put Warrants:

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

(if applicable) converted from Underlying Currency into the Settlement Currency at the Exchange Rate

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

"**Designated Bank Account**" means the relevant bank account designated by the relevant Holder;

"**Entitlement**" means the number specified as such in the relevant Launch Announcement and Supplemental Listing Document, subject to any adjustment in accordance with Product Condition 4;

"**Exchange Rate**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

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

"**Exercise Price**" means the price specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Expiry Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**General Conditions**" means the general terms and conditions of Structured Products set out in Appendix 1 of the Base Listing Document;

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

"**Market Disruption Event**" means:

(a) 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 Underlying Exchange or otherwise) on the Underlying Exchange in (i) the Shares; or (ii) 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; or

(b) a closure of the Underlying Exchange or a disruption or limitation in trading on the Underlying Exchange due to any other unforeseen circumstances;

"**Number of Warrant(s) per Entitlement**" means the amount specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Product Conditions**" means these product terms and conditions. These Product Conditions apply to each series of cash settled call/put Warrants over single foreign equities;

"**Settlement Currency**" means the currency specified as such in the relevant Launch Announcement and 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;

"**Settlement Disruption Event**" means an event beyond the control of the Issuer as a result of which the Issuer is unable to procure payment of the Cash Settlement Amount electronically through CCASS to the Designated Bank Account;

"**Shares**" means the shares of the Company specified as such in the relevant Launch Announcement and Supplemental Listing Document; and

"**Underlying Currency**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**Underlying Exchange**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**Underlying Exchange Business Day**" means a day (excluding Saturdays, Sundays or public holidays) on which the Underlying Exchange is scheduled to open for dealings during its regular trading sessions;

"**Valuation Date**" means each of the five Underlying Exchange 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 Underlying Exchange Business Day on which there is no Market Disruption Event irrespective of whether that postponed Valuation Date would fall on an Underlying Exchange 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 official closing price of the Shares on the first succeeding Underlying Exchange Business Day will be used more than once in determining the Average Price, so that in no event shall there be less than five official 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 Underlying Exchange 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 official 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.

2. Warrant Rights and Exercise Expenses

2.1 ***Warrant Rights***

Every Board Lot gives each Holder, upon due exercise and compliance with the General Conditions and these Product Conditions, in particular, Product Condition 3, the right to receive the payment of the Cash Settlement Amount (net of any Exercise Expenses), if any.

2.2 ***Exercise Expenses***

Upon exercise of the Warrants, Holders will be obliged to give an irrevocable authorisation to the Issuer to deduct all Exercise Expenses in accordance with Product Condition 3.

3. Exercise of Warrants

3.1 ***Exercise of Warrants in Board Lots***

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

3.2 ***Automatic Exercise***

Any Warrant will be deemed to be automatically exercised if the Cash Settlement Amount on the Expiry Date is greater than zero (without notice being given to the Holders). The Holders will not be required to deliver any exercise notice and the Issuer or its agent will pay to the Holders the Cash Settlement Amount (net of any Exercise Expenses) (if any) in accordance with Product Condition 3.4.

Any Warrant which has not been automatically exercised in accordance with this Product Condition shall expire immediately without value thereafter and all rights of the Holder and obligations of the Issuer with respect to such Warrant shall cease.

3.3 ***Cancellation***

The Issuer will procure that CS Hong Kong will, with effect from the first Business Day following the Expiry Date, remove from the Register the name of the person in respect of the Warrants which (i) are the subject of a valid exercise pursuant to automatic exercise in accordance with these Product Conditions; or (ii) have expired worthless, and thereby cancel the relevant Warrants.

3.4 ***Cash Settlement***

Subject to automatic exercise of Warrants in accordance with these Product Conditions, the Issuer will make a payment in respect of every Board Lot to the relevant Holder equal to the Cash Settlement Amount (net of any Exercise Expenses). If the Cash Settlement Amount is equal to or less than the Exercise Expense, no amount is payable by the Issuer.

The Cash Settlement Amount shall be despatched not later than the Settlement Date by crediting that amount in accordance with the CCASS Rules to the Designated Bank Account.

If, as a result of a 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 the Settlement Disruption Event.

4. Adjustments

4.1 ***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 will be adjusted to take effect on the Underlying Exchange Business Day on which trading in the Shares becomes ex-entitlement ("**Rights Issue Adjustment Date**") in accordance with the following formula:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

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

E: Existing Entitlement immediately prior to the Rights Offer

S: Cum-Rights Share price being the official closing price of an existing Share on the Underlying Exchange on the last Underlying Exchange Business Day on which Shares are traded on a cum-Rights basis

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

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 adjustment to be made would result in the Entitlement being changed by one per cent. or less, then no adjustment will be made. In addition, the Issuer shall adjust the Exercise Price by the reciprocal of the Adjustment Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment shall take effect on the Rights Issue Adjustment Date.

For the purposes of these Product 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).

4.2 ***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 will be adjusted on the Underlying Exchange Business Day on which trading in the Shares becomes ex-entitlement ("**Bonus Issue Adjustment Date**") in accordance with the following formula:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

$$\text{Adjustment Factor} = 1 + N$$

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 existing Shares for each Share held prior to the Bonus Issue

Provided that if the adjustment to be made would result in the Entitlement being changed by one per cent. or less, then no adjustment will be made. In addition, the Issuer shall adjust the Exercise Price by the reciprocal of the Adjustment Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment shall take effect on the Bonus Issue Adjustment Date.

4.3 ***Subdivisions or 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:

(a) in the case of a Subdivision, the Entitlement in effect immediately prior thereto will be increased whereas the Exercise Price will be decreased in the same ratio as the Subdivision; and

(b) in the case of a Consolidation, the Entitlement in effect immediately prior thereto will be decreased whereas the Exercise Price 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.

4.4 ***Merger or Consolidation***

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 any corporation 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 Underlying Exchange 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).

The rights attaching to the Warrants after the adjustment 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. 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 Product Condition 4.4 and, where cash is offered in substitution for Shares or is deemed to replace Substituted Securities as described above, references in these Product Conditions to the Shares shall include any such cash.

4.5 ***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 official 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 Underlying Exchange Business Day on which trading in the Shares becomes ex-entitlement in respect of the relevant Cash Distribution ("**Cash Distribution Adjustment Date**") in accordance with the following formula:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

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

E: The existing Entitlement immediately prior to the Cash Distribution

S: The official closing price of the existing Share on the Underlying Exchange on the Underlying Exchange Business Day immediately preceding the Cash Distribution Adjustment Date

CD: The amount of Cash Distribution per Share

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

In addition, the Issuer shall adjust the Exercise Price by the reciprocal of the Adjustment Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. The adjustment to the Exercise Price shall take effect on the Cash Distribution Adjustment Date.

4.6 ***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:

(a) 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

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

4.7 ***Notice of Determinations***

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 or amendment and of the date from which such adjustment or amendment is effective by publication in accordance with General Condition 7.

5. 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, 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.

6. Delisting

6.1 If at any time the Shares cease to be listed on the Underlying Exchange, the Issuer shall give effect to the General Conditions and these Product Conditions in such manner and make such adjustments 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 Holders generally are not materially prejudiced as a consequence of such delisting (without considering the individual circumstances of any Holder or the tax or other consequences that may result in any particular jurisdiction).

6.2 Without prejudice to the generality of Product Condition 6.1, where the Shares are, or, upon the delisting, become, listed on any other stock exchange, the General Conditions and these Product 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 Underlying Exchange and the Issuer may, without the consent of the Holders, make such adjustments to the entitlements of 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.

6.3 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 General Condition 7, as soon as practicable after they are determined.

APPENDIX 3 — PRODUCT CONDITIONS OF THE CBBCs

PART A — PRODUCT CONDITIONS OF INDEX CALLABLE BULL/BEAR CONTRACTS (CASH SETTLED)

These Product Conditions will, together with the General Conditions and the supplemental provisions contained in the relevant Launch Announcement and Supplemental Listing Document and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Launch Announcement and Supplemental Listing Document in relation to the issue of any series of CBBCs may specify additional terms and conditions which shall, to the extent so specified or to the extent inconsistent with these Product Conditions, replace or modify these Product Conditions for the purpose of such series of CBBCs. Capitalised terms used in these Product Conditions and not otherwise defined herein shall have the meaning given to them in the General Conditions and the relevant Launch Announcement and Supplemental Listing Document.

1. Definitions

For the purposes of these Product Conditions:

"**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 Launch Announcement and Supplemental Listing Document, subject to any adjustments in accordance with Product Condition 5;

"**Cash Settlement Amount**" means, in respect of every Board Lot:

(a) following a Mandatory Call Event:

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

(ii) in respect of a series of Category N CBBCs, zero; and

(b) at expiry:

(i) in respect of a series of bull CBBCs, an amount calculated by the Issuer equal to:

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

either converted (if applicable) (i) into the Settlement Currency at the Exchange Rate or, as the case may be, (ii) into the Interim Currency at the First Exchange Rate and then converted into the Settlement Currency at the Second Exchange Rate; and

(ii) in respect of a series of bear CBBCs, an amount calculated by the Issuer equal to:

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

either converted (if applicable) (i) into the Settlement Currency at the Exchange Rate or, as the case may be, (ii) into the Interim Currency at the First Exchange Rate and then converted into the Settlement Currency at the Second Exchange Rate.

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;

"**Closing Level**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document, subject to any adjustment in accordance with Product Condition 5;

"**Designated Bank Account**" means the relevant bank account designated by the relevant Holder;

"**Divisor**" means the amount specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Exchange Rate**", if applicable, means the rate specified as such in the relevant Launch Announcement and Supplemental Listing Document;

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

"**Expiry Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**First Exchange Rate**", if applicable, means the rate specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**General Conditions**" means the general terms and conditions of Structured Products set out in Appendix 1 of the Base Listing Document;

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

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

"**Index Compiler**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

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

"**Index Exchange**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**Interim Currency**", if applicable, means the currency specified as such in the relevant Launch Announcement and Supplemental Listing Document;

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

"**Mandatory Call Event**" occurs if the Spot Level at any time during an Index Business Day in the Observation Period is:

(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:

(a) the occurrence or existence, on the 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:

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

(ii) 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

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

for the purposes of paragraph (a), (i) 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 (ii) 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; or

(b) 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; or

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

(d) 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 the 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, in respect of Category R CBBCs, the highest Spot Level of the Index during the MCE Valuation Period;

"**MCE Valuation Period**" means:

(a) in respect of an Index Exchange located in Hong Kong, the period commencing from and including the moment upon which the Mandatory Call Event occurs (the trading session on the Index Exchange 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 the 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 published by the Index Compiler 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 applicable) of the same day; and

(B) the afternoon session and the closing auction session (if applicable) of the same day,

shall each be considered as one session only; and

(b) in respect of an Index Exchange located outside Hong Kong, the period specified in the relevant Launch Announcement and Supplemental Listing Document;

"**Minimum Index Level**" means, in respect of Category R CBBCs, the lowest Spot Level of the Index during the MCE Valuation Period;

"**Observation Commencement Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**Observation Period**" means the period commencing from and including the Observation Commencement Date up to and including the close of trading (Hong Kong time) on the Trading Day immediately preceding the Expiry Date;

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

"**Price Source**", if applicable, has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**Product Conditions**" means these product terms and conditions. These Product Conditions apply to each series of cash settled index callable bull/bear contracts;

"**Residual Value**" means, in respect of every Board Lot:

(a) in respect of a series of bull CBBCs, an amount calculated by the Issuer equal to:

$$\frac{(\text{Minimum Index Level - Strike Level}) \times \text{Index Currency Amount} \times \text{one Board Lot}}{\text{Divisor}}$$

either converted (if applicable) (i) into the Settlement Currency at the Exchange Rate or, as the case may be, (ii) into the Interim Currency at the First Exchange Rate and then converted into the Settlement Currency at the Second Exchange Rate; and

(b) in respect of a series of bear CBBCs, an amount calculated by the Issuer equal to:

$$\frac{(\text{Strike Level - Maximum Index Level}) \times \text{Index Currency Amount} \times \text{one Board Lot}}{\text{Divisor}}$$

either converted (if applicable) (i) into the Settlement Currency at the Exchange Rate or, as the case may be, (ii) into the Interim Currency at the First Exchange Rate and then converted into the Settlement Currency at the Second Exchange Rate;

"**Second Exchange Rate**", if applicable, means the rate specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Settlement Currency**" means the currency specified as such in the relevant Launch Announcement and 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);

"**Settlement Disruption Event**" means an event beyond the control of the Issuer as a result of which the Issuer is unable to procure payment of the Cash Settlement Amount electronically through CCASS to the Designated Bank Account;

"**Spot Level**" means:

(a) if no Price Source is specified, the spot level of the Index as compiled and published by the Index Compiler; or

(b) if a Price Source is specified, the spot level of the Index as published on the Price Source;

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

"**Strike Level**" means the level specified as such in the relevant Launch Announcement and Supplemental Listing Document, subject to adjustment in accordance with Product Condition 5;

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

"**Valuation Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document, provided that 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.

2. Hedging Disruption

2.1 ***Notification***: The Issuer shall as soon as reasonably practicable give notice to the Holders in accordance with General Condition 7 if it determines that a Hedging Disruption Event has occurred. The notice shall specify the consequence of such Hedging Disruption Event as determined by the Issuer pursuant to Product Condition 2.3.

2.2 ***Hedging Disruption Event***: A "**Hedging Disruption Event**" occurs if the Issuer determines that it is or has become not reasonably practicable or it has otherwise become undesirable, for any reason, for the Issuer wholly or partially (X) 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 (Y) to freely realise, 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:

(a) any material illiquidity in the market for the components comprising the Index;

(b) 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);

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

(d) the general unavailability of:

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

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

2.3 ***Consequences***: The Issuer, in the event of a Hedging Disruption Event, may determine to:

(a) 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 calculated by it as 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 General Condition 7; or

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

3. CBBC Rights and Exercise Expenses

3.1 *CBBC Rights*

Every Board Lot gives each Holder, upon due exercise and compliance with Product Condition 4, the right to receive the payment of the Cash Settlement Amount (net of any Exercise Expenses), if any.

3.2 *Exercise Expenses*

On exercise of the CBBCs, Holders will be obliged to give an irrevocable authorisation to the Issuer to deduct all Exercise Expenses in accordance with Product Condition 4.

4. Exercise of CBBCs

4.1 *Exercise of CBBCs in Board Lots*

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

4.2 *Automatic exercise*

If no Mandatory Call Event has occurred during the Observation Period, the CBBCs will be deemed to be automatically exercised on the Expiry Date if the Cash Settlement Amount is greater than zero (without notice being given to the Holders).

4.3 *Mandatory Call Event*

(a) Subject to Product Condition 4.3(b) below, following a Mandatory Call Event, the CBBCs will be terminated automatically and the Issuer shall have no further obligation under the CBBCs except for the payment of the Cash Settlement Amount (net of any Exercise Expenses) (if any) on the Settlement Date. The Issuer will notify the Holders of the occurrence of the Mandatory Call Event in accordance with General Condition 7.

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 Stock Exchange or the Issuer.

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

(i) system malfunction or other technical errors of the Stock Exchange and 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; or

(ii) manifest errors caused by the relevant third party where applicable (such as miscalculation of the index level by the Index Compiler) and 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 the time specified in the relevant Launch Announcement and Supplemental Listing Document or such other time as prescribed by the Stock Exchange from time to time.

In both cases, the Mandatory Call Event so triggered will be reversed; and all cancelled trades (if any) will be reinstated and trading of the CBBCs will resume as soon as practicable in accordance with the rules and/or requirements prescribed by the Stock Exchange from time to time.

4.4 ***Entitlement***

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

4.5 ***Exercise Expenses***

Any Exercise Expenses which are not determined by the Issuer by the end of 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 Product 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.

4.6 ***Cancellation***

The Issuer will procure that the Registrar will, with effect from the first Business Day following the MCE Valuation Period or the Expiry Date (as the case may be), remove from the Register the name of the person in respect of the CBBCs which (a) are the subject of a valid exercise in accordance with these Product Conditions or (b) have expired worthless, and thereby cancel the relevant CBBCs.

4.7 ***Cash Settlement***

Upon early termination of the CBBCs following the occurrence of a Mandatory Call Event or an automatic exercise of the CBBCs on the Expiry Date (as the case may be) in accordance with these Product Conditions, the Issuer will make a payment in respect of every Board Lot to the relevant Holder equal to the Cash Settlement Amount (net of any Exercise Expenses). If the Cash Settlement Amount is equal to or less than the Exercise Expense, no amount is payable by the Issuer.

The Cash Settlement Amount shall be despatched not later than the Settlement Date by crediting that amount in accordance with the CCASS Rules to the Designated Bank Account.

If as a result of a 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 the Settlement Disruption Event.

4.8 ***Responsibility of Issuer and Registrar***

None of the Issuer, the Registrar or their respective agents shall have any responsibility for (i) any errors or omissions in the calculation and dissemination of any variables published by a third party; and (ii) any errors or omissions in any calculation made by the Issuer pursuant to the Conditions (including the calculation of the Cash Settlement Amount) if such error or omission in calculation arises from the use of errors or omissions in any variables calculated, disseminated or published by a third party.

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.

4.9 ***Liability of Issuer and Registrar***

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 Registrar 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 Registrar 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.

4.10 ***Trading in the CBBCs***

Subject to Product Condition 4.3(b), trading in CBBCs on the Stock Exchange shall cease (a) immediately upon the occurrence of a Mandatory Call Event or (b) 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.

5. Adjustments to the Index

5.1 ***Successor Index Compiler Calculates and Reports Index***

If the Index is (a) 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 (b) 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.

5.2 ***Modification and Cessation of Calculation of Index***

If:

(a) 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 stock, contracts or commodities and other routine events); or

(b) 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 on the Valuation Date using, in lieu of a published level for the Index, the level for the Index as at that 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/commodities that comprised the Index immediately prior to that change or failure.

5.3 ***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:

(a) 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

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

5.4 ***Notice of Determinations***

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 or amendment and of the date from which such adjustment or amendment is effective by publication in accordance with General Condition 7.

PART B — PRODUCT CONDITIONS OF CALLABLE BULL/BEAR CONTRACTS OVER SINGLE EQUITIES (CASH SETTLED)

These Product Conditions will, together with the General Conditions and the supplemental provisions contained in the relevant Launch Announcement and Supplemental Listing Document and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Launch Announcement and Supplemental Listing Document in relation to the issue of any series of CBBCs may specify additional terms and conditions which shall, to the extent so specified or to the extent inconsistent with these Product Conditions, replace or modify these Product Conditions for the purpose of such series of CBBCs. Capitalised terms used in these Product Conditions and not otherwise defined herein shall have the meaning given to them in the General Conditions and the relevant Launch Announcement and Supplemental Listing Document.

1 Definitions

For the purposes of these Product Conditions:

"**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 Launch Announcement and Supplemental Listing Document, subject to any adjustment in accordance with Product Condition 5;

"**Cash Settlement Amount**" means, in respect of every Board Lot, an amount in the Settlement Currency calculated by the Issuer as:

(a) following a Mandatory Call Event:

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

(ii) in respect of a series of Category N CBBCs, zero; and

(b) at expiry:

(i) in respect of a series of bull CBBCs, an amount equal to:

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

and

(ii) in respect of a series of bear CBBCs, an amount equal to:

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

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;

"**Closing Price**" means the official closing price of the Share (as derived from the daily quotation sheet of the Stock Exchange, subject to any adjustment as may be necessary to reflect any event as contemplated in Product Condition 5 such as capitalisation, rights issue, distribution or the like) on the Valuation Date. If a Market Disruption Event occurs on each of the four Trading Days immediately following the scheduled Valuation Date, then the Issuer shall determine the Closing Price in accordance with the definition of "Valuation Date";

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

"**Designated Bank Account**" means the relevant bank account designated by the relevant Holder;

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

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

"**Expiry Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**General Conditions**" means the general terms and conditions of Structured Products set out in Appendix 1 of the Base Listing Document;

"Listing Date" means the date specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Mandatory Call Event**" occurs if the Spot Price of the Shares at any time during a Trading Day in the Observation Period is:

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

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

"**Market Disruption Event**" means:

(a) 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: (i) the Shares; or (ii) 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;

(b) 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

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

"**Maximum Trade Price**" means, in respect of Category R CBBCs, 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 Product Condition 5 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 on the Stock Exchange 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 for the 2nd Session) does not contain any continuous period of 1 hour or more than 1 hour during which Spot Prices are available, the MCE Valuation Period shall be extended to the end of the subsequent trading session on the Stock Exchange following the 2nd Session during which Spot Prices 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 Trading Days immediately following the day on which the Mandatory Call Event occurs does not contain any continuous period of 1 hour or more than 1 hour during which Spot Prices are available. In that case:

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

(b) 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 applicable) of the same day; and

(B) the afternoon session and the closing auction session (if applicable) of the same day,

shall each be considered as one session only;

"**Minimum Trade Price**" means, in respect of Category R CBBCs, 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 Product Condition 5 such as capitalisation, rights issue, distribution or the like) during the MCE Valuation Period;

"**Number of CBBC(s) per Entitlement**" means the amount specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Observation Commencement Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**Observation Period**" means the period commencing from and including the Observation Commencement Date up to and including the close of trading (Hong Kong time) on the Trading Day immediately preceding the Expiry Date;

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

"**Product Conditions**" means these product terms and conditions. These Product Conditions apply to each series of cash settled callable bull/bear contracts over single equities;

"**Residual Value**" means, in respect of every Board Lot:

(a) in respect of a series of bull CBBCs, an amount calculated by the Issuer equal to:

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

and

(b) in respect of a series of bear CBBCs, an amount calculated by the Issuer equal to:

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

"**Settlement Currency**" means the currency specified as such in the relevant Launch Announcement and 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);

"**Settlement Disruption Event**" means an event beyond the control of the Issuer as a result of which the Issuer is unable to procure payment of the Cash Settlement Amount electronically through CCASS to the Designated Bank Account;

"**Shares**" means the shares of the Company specified as such in the relevant Launch Announcement and 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 of the Stock Exchange 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 (IEP) (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 Launch Announcement and Supplemental Listing Document, subject to any adjustment in accordance with Product Condition 5;

"**Trading Day**" means a 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 the Issuer determines, in its sole and absolute discretion, that a Market Disruption Event has occurred, then that day shall be postponed until 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 on the basis of its good faith estimate of the price that would have prevailed on that day but for the occurrence of the Market Disruption Event.

2. Hedging Disruption

2.1 ***Notification***: The Issuer shall as soon as reasonably practicable give notice to the Holders in accordance with General Condition 7 if it determines that a Hedging Disruption Event has occurred. The notice shall specify the consequence of such Hedging Disruption Event as determined by the Issuer pursuant to Product Condition 2.3.

2.2 ***Hedging Disruption Event***: A "**Hedging Disruption Event**" occurs if the Issuer determines that it is or has become not reasonably practicable or it has otherwise become undesirable, for any reason, for the Issuer wholly or partially (X) 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 or (Y) 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:

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

(b) 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);

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

(d) the general unavailability of:

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

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

2.3 ***Consequences***: The Issuer, in the event of a Hedging Disruption Event, may determine to:

(a) 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 calculated by it as 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 General Condition 7; or

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

3. CBBC Rights and Exercise Expenses

3.1 ***CBBC Rights***

Every Board Lot gives each Holder, upon due exercise and compliance with Product Condition 4, the right to receive the payment of the Cash Settlement Amount (net of any Exercise Expenses), if any.

3.2 ***Exercise Expenses***

On exercise of the CBBCs, Holders will be obliged to give an irrevocable authorisation to the Issuer to deduct all Exercise Expenses in accordance with Product Condition 4.

4. Exercise of CBBCs

4.1 ***Exercise of CBBCs in Board Lots***

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

4.2 ***Automatic exercise***

If no Mandatory Call Event has occurred during the Observation Period, the CBBCs will be deemed to be automatically exercised on the Expiry Date if the Cash Settlement Amount is greater than zero (without notice being given to the Holders).

4.3 ***Mandatory Call Event***

(a) Subject to Product Condition 4.3(b) below, following a Mandatory Call Event, the CBBCs will be terminated automatically and the Issuer shall have no further obligation under the CBBCs except for the payment of the Cash Settlement Amount (net of any Exercise Expenses) (if any) on the Settlement Date. The Issuer will notify the Holders of the occurrence of the Mandatory Call Event in accordance with General Condition 7. 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 Stock Exchange or the Issuer.

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

(i) system malfunction or other technical errors of the Stock Exchange and 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; or

(ii) manifest errors caused by the relevant third party where applicable and 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 the time specified in the relevant Launch Announcement and Supplemental Listing Document or such other time as prescribed by the Stock Exchange from time to time.

In both cases, the Mandatory Call Event so triggered will be reversed; and all cancelled trades (if any) will be reinstated and trading of the CBBCs will resume as soon as practicable in accordance with the rules and/or requirements prescribed by the Stock Exchange from time to time.

4.4 ***Entitlement***

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

4.5 ***Exercise Expenses***

Any Exercise Expenses which are not determined by the Issuer by the end of 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 Product 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.

4.6 ***Cancellation***

The Issuer will procure that the Registrar will, with effect from the first Business Day following the MCE Valuation Period or the Expiry Date (as the case may be), remove from the Register the name of the person in respect of the CBBCs which (a) are the subject of an exercise in accordance with these Product Conditions; or (b) have expired worthless, and thereby cancel the relevant CBBCs.

4.7 ***Cash Settlement***

Upon early termination of the CBBCs following the occurrence of a Mandatory Call Event or an automatic exercise of the CBBCs on the Expiry Date (as the case may be) in accordance with these Product Conditions, the Issuer will make a payment in respect of every Board Lot to the relevant Holder equal to the Cash Settlement Amount (net of any Exercise Expenses). If the Cash Settlement Amount is equal to or less than the Exercise Expense, no amount is payable by the Issuer.

The Cash Settlement Amount shall be despatched not later than the Settlement Date by crediting that amount in accordance with the CCASS Rules to the Designated Bank Account.

If, as a result of a 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 the Settlement Disruption Event.

4.8 ***Responsibility of Issuer and Registrar***

None of the Issuer, the Registrar or their respective agents shall have any responsibility for (i) any errors or omissions in the calculation and dissemination of any variables published by a third party; and (ii) any errors or omissions in any calculation made by the Issuer pursuant to the Conditions (including the calculation of the Cash Settlement Amount) if such error or omission in calculation arises from the use of errors or omissions in any variables calculated, disseminated or published by a third party.

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.

4.9 ***Liability of Issuer and Registrar***

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 Registrar 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 Registrar 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.

4.10 ***Trading in the CBBCs***

Subject to Product Condition 4.3(b), trading in CBBCs on the Stock Exchange shall cease (a) immediately upon the occurrence of a Mandatory Call Event or (b) 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.

5. Adjustments

5.1 ***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:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

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

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 Shares are traded on a cum-Rights basis

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

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 adjustment to be made would result in the Entitlement being changed by one per cent. or less, then no adjustment shall be made. In addition, the Issuer shall adjust the Strike Price and the Call Price (each of which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment to the Strike Price and the Call Price shall take effect on the Rights Issue Adjustment Date.

For the purposes of these Product 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).

5.2 ***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 on the Business Day on which trading in the Shares becomes ex-entitlement ("**Bonus Issues Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Factor x E

Where:

Adjustment Factor = 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 existing Shares for each Share held prior to the Bonus Issue

Provided that if the adjustment to be made would result in the Entitlement being changed by one per cent. or less, then no adjustment shall be made. In addition, the Issuer shall adjust the Strike Price and the Call Price (which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment to the Strike Price and the Call Price shall take effect on the Bonus Issue Adjustment Date.

5.3 ***Subdivisions or 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:

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

(b) in the case of a Consolidation, the Entitlement in effect immediately prior thereto will be decreased whereas the Strike Price and the Call Price (each of 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.

5.4 ***Merger or Consolidation***

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 any corporation 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).

The rights attaching to the CBBCs after the adjustment 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. 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 Product Condition 5.4 and, where cash is offered in substitution for Shares or is deemed to replace Substituted Securities as described above, references in these Product Conditions to the Shares shall include any such cash.

5.5 ***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 ("**Cash Distribution Adjustment Date**") in accordance with the following formula:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

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

E: The existing Entitlement immediately prior to the Cash Distribution

S: The closing price of the existing Share as derived from the daily quotation sheet of the Stock Exchange on the Business Day immediately preceding the Cash Distribution Adjustment Date

CD: The amount of Cash Distribution per Share

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

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

5.6 ***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:

(a) 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

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

5.7 ***Notice of Determinations***

All determinations made by the Issuer pursuant hereto shall 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 or amendment and of the date from which such adjustment or amendment is effective by publication in accordance with General Condition 7.

6. 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 Hong Kong 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, 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.

7. Delisting

7.1 *Adjustments following delisting*

If at any time the Shares cease to be listed on the Stock Exchange, the Issuer shall give effect to the General Conditions and these Product Conditions in such manner and make such adjustments 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 individual circumstances of any Holder or the tax or other consequences that may result in any particular jurisdiction).

7.2 *Listing on another exchange*

Without prejudice to the generality of Product Condition 7.1, where the Shares are, or, upon the delisting, become, listed on any other stock exchange, the General Conditions and these Product 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 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.

7.3 *Adjustments binding*

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 General Condition 7, as soon as practicable after they are determined.

PART C — PRODUCT CONDITIONS OF CALLABLE BULL/BEAR CONTRACTS OVER SINGLE UNIT TRUSTS (CASH SETTLED)

These Product Conditions will, together with the General Conditions and the supplemental provisions contained in the relevant Launch Announcement and Supplemental Listing Document and subject to completion and amendment, be endorsed on the Global Certificate. The relevant Launch Announcement and Supplemental Listing Document in relation to the issue of any series of CBBCs may specify additional terms and conditions which shall, to the extent so specified or to the extent inconsistent with these Product Conditions, replace or modify these Product Conditions for the purpose of such series of CBBCs. Capitalised terms used in these Product Conditions and not otherwise defined herein shall have the meaning given to them in the General Conditions and the relevant Launch Announcement and Supplemental Listing Document.

1. Definitions

For the purposes of these Product Conditions:

"**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 Launch Announcement and Supplemental Listing Document, subject to any adjustment in accordance with Product Condition 5;

"**Cash Settlement Amount**" means, in respect of every Board Lot, an amount in the Settlement Currency calculated by the Issuer as:

(a) following a Mandatory Call Event:

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

(ii) in respect of a series of Category N CBBCs, zero; and

(b) at expiry:

(i) in respect of a series of bull CBBCs, an amount equal to:

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

and

(ii) in respect of a series of bear CBBCs, an amount equal to:

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

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;

"**Closing Price**" means the official closing price of the Unit (as derived from the daily quotation sheet of the Stock Exchange, subject to any adjustment as may be necessary to reflect any event as contemplated in Product Condition 5 such as capitalisation, rights issue, distribution or the like) on the Valuation Date. If a Market Disruption Event occurs on each of the four Trading Days immediately following the scheduled Valuation Date, then the Issuer shall determine the Closing Price in accordance with the definition of "Valuation Date";

"**Designated Bank Account**" means the relevant bank account designated by the relevant Holder;

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

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

"**Expiry Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**General Conditions**" means the general terms and conditions of Structured Products set out in Appendix 1 of the Base Listing Document;

"Listing Date" means the date specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Mandatory Call Event**" occurs if the Spot Price of the Units at any time during a Trading Day in the Observation Period is:

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

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

"**Market Disruption Event**" means:

(a) 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: (i) the Units; or (ii) 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;

(b) 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

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

"**Maximum Trade Price**" means, in respect of Category R CBBCs, 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 Product Condition 5 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 on the Stock Exchange 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 for the 2nd Session) does not contain any continuous period of 1 hour or more than 1 hour during which Spot Prices are available, the MCE Valuation Period shall be extended to the end of the subsequent trading session on the Stock Exchange following the 2nd Session during which Spot Prices 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 Trading Days immediately following the day on which the Mandatory Call Event occurs does not contain any continuous period of 1 hour or more than 1 hour during which Spot Prices are available. In that case:

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

(b) 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 applicable) of the same day; and

(B) the afternoon session and the closing auction session (if applicable) of the same day,

shall each be considered as one session only;

"**Minimum Trade Price**" means, in respect of Category R CBBCs, 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 Product Condition 5 such as capitalisation, rights issue, distribution or the like) during the MCE Valuation Period;

"**Number of CBBC(s) per Entitlement**" means the amount specified as such in the relevant Launch Announcement and Supplemental Listing Document;

"**Observation Commencement Date**" has the meaning given to it in the relevant Launch Announcement and Supplemental Listing Document;

"**Observation Period**" means the period commencing from and including the Observation Commencement Date up to and including the close of trading (Hong Kong time) on the Trading Day immediately preceding the Expiry Date;

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

"**Product Conditions**" means these product terms and conditions. These Product Conditions apply to each series of cash settled callable bull/bear contracts over single unit trusts;

"**Residual Value**" means, in respect of every Board Lot:

(a) in respect of a series of bull CBBCs, an amount calculated by the Issuer equal to:

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

and

(b) in respect of a series of bear CBBCs, an amount calculated by the Issuer equal to:

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

"**Settlement Currency**" means the currency specified as such in the relevant Launch Announcement and 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);

"**Settlement Disruption Event**" means an event beyond the control of the Issuer as a result of which the Issuer is unable to procure payment of the Cash Settlement Amount electronically through CCASS to the Designated Bank Account;

"**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 of the Stock Exchange 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 (IEP) (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 Launch Announcement and Supplemental Listing Document, subject to any adjustment in accordance with Product Condition 5;

"**Trading Day**" means a 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 Launch Announcement and Supplemental Listing Document;

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

"**Valuation Date**" means the Trading Day immediately preceding the Expiry Date unless the Issuer determines, in its sole and absolute discretion, that a Market Disruption Event has occurred, then that day shall be postponed until 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 on the basis of its good faith estimate of the price that would have prevailed on that day but for the occurrence of the Market Disruption Event.

2. Hedging Disruption

2.1 ***Notification***: The Issuer shall as soon as reasonably practicable give notice to the Holders in accordance with General Condition 7 if it determines that a Hedging Disruption Event has occurred. The notice shall specify the consequence of such Hedging Disruption Event as determined by the Issuer pursuant to Product Condition 2.3.

2.2 ***Hedging Disruption Event***: A "**Hedging Disruption Event**" occurs if the Issuer determines that it is or has become not reasonably practicable or it has otherwise become undesirable, for any reason, for the Issuer wholly or partially (X) 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 or (Y) 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:

(a) any material illiquidity in the market for the Units;

(b) 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);

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

(d) the general unavailability of:

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

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

2.3 ***Consequences***: The Issuer, in the event of a Hedging Disruption Event, may determine to:

(a) 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 calculated by it as 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 General Condition 7; or

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

3. CBBC Rights and Exercise Expenses

3.1 ***CBBC Rights***

Every Board Lot gives each Holder, upon due exercise and compliance with Product Condition 4, the right to receive the payment of the Cash Settlement Amount (net of any Exercise Expenses), if any.

3.2 ***Exercise Expenses***

On exercise of the CBBCs, Holders will be obliged to give an irrevocable authorisation to the Issuer to deduct all Exercise Expenses in accordance with Product Condition 4.

4. Exercise of CBBCs

4.1 ***Exercise of CBBCs in Board Lots***

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

4.2 ***Automatic exercise***

If no Mandatory Call Event has occurred during the Observation Period, the CBBCs will be deemed to be automatically exercised on the Expiry Date if the Cash Settlement Amount is greater than zero (without notice being given to the Holders).

4.3 ***Mandatory Call Event***

(a) Subject to Product Condition 4.3(b) below, following a Mandatory Call Event, the CBBCs will be terminated automatically and the Issuer shall have no further obligation under the CBBCs except for the payment of the Cash Settlement Amount (net of any Exercise Expenses) (if any) on the Settlement Date. The Issuer will notify the Holders of the occurrence of the Mandatory Call Event in accordance with General Condition 7. 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 Stock Exchange or the Issuer.

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

 (i) system malfunction or other technical errors of the Stock Exchange and 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; or

 (ii) manifest errors caused by the relevant third party where applicable and 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 the time specified in the relevant Launch Announcement and Supplemental Listing Document or such other time as prescribed by the Stock Exchange from time to time.

 In both cases, the Mandatory Call Event so triggered will be reversed; and all cancelled trades (if any) will be reinstated and trading of the CBBCs will resume as soon as practicable in accordance with the rules and/or requirements prescribed by the Stock Exchange from time to time.

4.4 ***Entitlement***

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

4.5 ***Exercise Expenses***

Any Exercise Expenses which are not determined by the Issuer by the end of 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 Product 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.

4.6 ***Cancellation***

The Issuer will procure that the Registrar will, with effect from the first Business Day following the MCE Valuation Period or the Expiry Date (as the case may be), remove from the Register the name of the person in respect of the CBBCs which (a) are the subject of an exercise in accordance with these Product Conditions; or (b) have expired worthless, and thereby cancel the relevant CBBCs.

4.7 ***Cash Settlement***

Upon early termination of the CBBCs following the occurrence of a Mandatory Call Event or an automatic exercise of the CBBCs on the Expiry Date (as the case may be) in accordance with these Product Conditions, the Issuer will make a payment in respect of every Board Lot to the relevant Holder equal to the Cash Settlement Amount (net of any Exercise Expenses). If the Cash Settlement Amount is equal to or less than the Exercise Expense, no amount is payable by the Issuer.

The Cash Settlement Amount shall be despatched not later than the Settlement Date by crediting that amount in accordance with the CCASS Rules to the Designated Bank Account.

If, as a result of a 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 the Settlement Disruption Event.

4.8 ***Responsibility of Issuer and Registrar***

None of the Issuer, the Registrar or their respective agents shall have any responsibility for (i) any errors or omissions in the calculation and dissemination of any variables published by a third party; and (ii) any errors or omissions in any calculation made by the Issuer pursuant to the Conditions (including the calculation of the Cash Settlement Amount) if such error or omission in calculation arises from the use of errors or omissions in any variables calculated, disseminated or published by a third party.

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.

4.9 ***Liability of Issuer and Registrar***

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 Registrar 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 Registrar 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.

4.10 ***Trading in the CBBCs***

Subject to Product Condition 4.3(b), trading in CBBCs on the Stock Exchange shall cease (a) immediately upon the occurrence of a Mandatory Call Event or (b) 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.

5. Adjustments

5.1 ***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:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

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

E: The 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 as specified in the Rights Offer plus an amount equal to any distributions or other benefits foregone to exercise the Rights

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 adjustment to be made would result in the Entitlement being changed by one per cent. or less, then no adjustment shall be made. In addition, the Issuer shall adjust the Strike Price and the Call Price (each of which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment to the Strike Price and the Call Price shall take effect on the Rights Issue Adjustment Date.

For the purposes of these Product 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).

5.2 ***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 on the Business Day on which trading in the Units becomes ex-entitlement ("**Bonus Issues Adjustment Date**") in accordance with the following formula:

$$\text{Adjusted Entitlement} = \text{Adjustment Factor} \times E$$

Where:

$$\text{Adjustment Factor} = 1 + N$$

E: The existing Entitlement immediately prior to the Bonus Issue

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

Provided that if the adjustment to be made would result in the Entitlement being changed by one per cent. or less, then no adjustment shall be made. In addition, the Issuer shall adjust the Strike Price and the Call Price (each of which shall be rounded to the nearest 0.001) by the reciprocal of the Adjustment Factor, where the reciprocal of the Adjustment Factor means one divided by the relevant Adjustment Factor. This adjustment to the Strike Price and the Call Price shall take effect on the Bonus Issue Adjustment Date.

5.3 ***Subdivisions or 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:

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

(b) in the case of a Consolidation, the Entitlement in effect immediately prior thereto shall be decreased whereas the Strike Price and the Call Price (which shall be rounded to the nearest 0.001) shall 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.

5.4 ***Merger or Consolidation***

If it is announced that the Trust is to or may merge or consolidate 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 trust 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).

The rights attaching to the CBBCs after the adjustment 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. 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 Product Condition 5.4 and, where cash is offered in substitution for Units or is deemed to replace Substituted Securities as described above, references in these Product Conditions to the Units shall include any such cash.

5.5 ***Cash Distributions***

No adjustment shall 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 shall 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 Call Price and the Strike Price shall be adjusted to take effect on the Business Day on which trading in the Units becomes ex-entitlement ("**Cash Distribution Adjustment Date**") in accordance with the following formula:

Adjusted Entitlement = Adjustment Factor x E

Where:

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

E: The existing Entitlement immediately prior to the Cash Distribution

S: The closing price of the existing Unit as derived from the daily quotation sheet of the Stock Exchange on the Business Day immediately preceding the Cash Distribution Adjustment Date

CD: The amount of Cash Distribution per Unit

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

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

5.6 ***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:

(a) 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

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

5.7 ***Notice of Determinations***

All determinations made by the Issuer pursuant hereto shall 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 or amendment and of the date from which such adjustment or amendment is effective by publication in accordance with General Condition 7.

6. Termination or Liquidation

6.1 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 voluntary liquidation, 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.

6.2 For the purpose of this Product Condition 6, "**Termination**" means (a) 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; (b) the Trust is held or is conceded by the Trustee or the Manager not to have been constituted or to have been imperfectly constituted; (c) 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 (d) the Trust ceases to be authorised as an authorised collective investment scheme under the Securities and Futures Ordinance (Cap 571, The Laws of Hong Kong).

7. Delisting

7.1 ***Adjustments following delisting***

If at any time the Units cease to be listed on the Stock Exchange, the Issuer shall give effect to the General Conditions and these Product Conditions in such manner and make such adjustments 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 individual circumstances of any Holder or the tax or other consequences that may result in any particular jurisdiction).

7.2 ***Listing on another exchange***

Without prejudice to the generality of Product Condition 7.1, where the Units are, or, upon the delisting, become, listed on any other stock exchange, the General Conditions and these Product 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 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.

7.3 ***Adjustments binding***

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 General Condition 7, as soon as practicable after they are determined.

APPENDIX 4 — OUR GENERAL INFORMATION EXTRACTED FROM CREDIT SUISSE ANNUAL REPORT 2018

We are a wholly owned subsidiary of Credit Suisse Group AG. We have extracted the following sections from the Credit Suisse Annual Report 2018 in this appendix 4. References to the following page numbers in this appendix 4 are to the pages in the Credit Suisse Annual Report 2018 and not to the pages in this document.

1 Risk management (pages 142 - 182);

2 Board of Directors (pages 197 - 216);

3 Executive Board (pages 217 - 226);

4 Additional information (pages 227 - 229); and

5 Compensation (pages 231 - 264).

For further information on our general information, we refer you to the complete Credit Suisse Annual Report 2018 on our website at www.credit-suisse.com.

Risk management

During 2018, we enhanced our risk data aggregation and reporting capabilities in line with BCBS 239 principles and passed the CCAR stress tests for our US intermediate holding company.

Key risk developments

The rise in protectionism and the implications of Fed monetary policy tightening, particularly for emerging countries, were the key risk developments which impacted the markets and the economy in 2018. Other significant risk developments were political and economic policy developments in the eurozone, the implementation of new sanctions against Russia, the process surrounding the expected withdrawal of the UK from the European Union and the global economic slowdown. There were also concerns over volatility and liquidity in the markets.

Trade tensions
The risk of global trade tensions became a major concern of global investors beginning in early 2018. The escalation of tensions between the US and China continued during the course of the year with both countries implementing tariffs. Trade tension concerns also widened to include a number of other economies, including the eurozone, with impacts on sectors exposed to international trade such as ship finance. The impact of a shift towards a more protectionist foreign trade policy by the US continues to be assessed in various stress tests run at the Group, divisional or legal entity level on a regular basis.

Emerging markets vulnerabilities
The tightening of US monetary policy, the appreciation of the US dollar and the announcement and implementation of new tariffs triggered capital outflows from emerging markets and the broad-based sell-off of emerging markets currencies. Those global factors, combined with some specific local vulnerabilities, led to economic and political crises in a number of emerging market countries. In addition, China's economic slowdown appeared to have worsened in the final quarter of 2018. We closely monitor developments in China and in other emerging markets as well as the related risks in our portfolio and have implemented certain risk-reduction measures.

Policy interest rates and credit cycle
The Fed continued tightening its monetary policy throughout 2018. The ECB ended its asset purchase program and the Bank of England raised interest rates. In credit markets, there was some concern over leveraged loans, a segment where issuance has grown rapidly. We monitor potential risks associated with the monetary policy tightening paths of the Fed and other major central banks through our suite of stress scenarios. We also closely monitor the risks associated with any deterioration in the credit quality of the leverage loan portfolio.

European political landscape
After initial uncertainties, Germany formed a government coalition early in the year. Negotiations relating to the withdrawal of the UK from the EU remained a source of uncertainty in Europe in 2018. In addition, discussions between the new coalition in Italy and the European Commission over the 2019 budget brought some stress to Italian markets in the second half of 2018. We are continuing to monitor developments and assess the potential negative implications using a suite of stress scenarios.

Withdrawal of the UK from the EU
Uncertainty over the outcome of the negotiations surrounding the anticipated withdrawal of the UK from the EU persisted throughout 2018 and early 2019. That uncertainty had a significant negative impact on the UK economy in late 2018 and in early 2019 and was also a factor contributing to the economic slowdown in the eurozone. The withdrawal agreement between the EU and the UK has not yet been approved and it appears likely that there will be a delay of the UK's withdrawal from the EU for a period of time beyond March 29, 2019, although it is still possible that the UK could leave the EU without such an agreement in place. We are continuing to closely monitor this situation and its potential impact on the Group.

Market liquidity and volatility
There has been significant structural change in the markets since the 2008/2009 financial crisis. The amount of inventory held by banks and broker-dealers has declined. The role in the markets of computer-driven investment strategies and of mutual funds and exchange-traded funds has significantly increased. Volatility in the markets is heavily influenced by the asset purchase programs of the major central banks and has become a significant investor concern, particularly since early February 2018 when equity markets fell, credit spreads widened and equity market volatility significantly increased. Such structural changes have increased the threat that liquidity shortages could quickly develop in periods of stress and trigger large moves in the markets. The potential for liquidity shortages in stress periods and for spikes in volatility are embedded in the market risk shocks which form part of the suite of multi-quarter stress scenarios we have developed. That suite of stress scenarios is assessed on a monthly basis.

Sanctions involving Russia
The US Department of the Treasury's Office of Foreign Assets Control (OFAC) imposed sanctions in 2018 against Russian individuals and companies. We identified impacted client relationships and transactions to ensure compliance; additionally, our sanctions compliance group closely monitors the developments in collaboration with the businesses and the risk management

function. Unless there are specific restrictions in place, we continue serving Russian clients by applying enhanced due diligence procedures.

Cyber risk

The financial industry is increasingly reliant on technology and faces dynamic cyber threats from a variety of actors who are driven by monetary, political and other motivations. We continue to invest significantly in an information and cybersecurity program in order to strengthen our ability to anticipate, defend against, detect and recover from cyber attacks. We regularly assess the effectiveness of our key controls and conduct ongoing employee training and awareness activities, including for key management personnel, in order to embed resilience and a strong cyber risk culture.

Risk management oversight

Prudent risk taking in line with our strategic priorities is fundamental to our business. The primary objectives of risk management are to protect our financial strength and reputation, while ensuring that capital is well deployed to support business growth and activities. Our risk management framework is based on transparency, management accountability and independent oversight. Risk management is an integral part of our business planning process with strong senior management and Board involvement.

We continuously work to strengthen risk management across the Group in our efforts to meet the challenges resulting from a volatile market environment and increasing complexity driven by the changing regulatory landscape. Utilizing comprehensive risk management processes and sophisticated control systems, we continuously work to minimize the negative impact that may arise from risk concentrations.

Organizational development in 2019

On February 26, 2019, an organizational change relating to the compliance functions was announced, effective immediately. The regulatory affairs function was separated from the compliance organization and integrated into the office of the CEO with the Global Head of Regulatory Affairs now reporting directly to the CEO. The remaining functions within the compliance organization are managed by the Chief Compliance Officer (CCO), and that office continues to be represented on the Group's Executive Board.

Risk governance

Effective risk governance sets a solid foundation for comprehensive risk management discipline. Our risk governance framework is based on a "three lines of defense" governance model, where each line has a specific role with defined responsibilities and works in close collaboration to identify, assess and mitigate risks.

Key management bodies and committees covering risk management matters

1 Effective as of January 1, 2019.
2 Divisional risks may be covered by the respective legal entity risk management committees.
3 Beginning in 2019, the Strategic Resolution Unit has ceased to exist as a separate division of the Group. The residual portfolio remaining as of December 31, 2018 is now managed in an Asset Resolution Unit and will be separately disclosed within the Corporate Center.

The first line of defense is the front office, which is responsible for pursuing suitable business opportunities within the strategic risk objectives and compliance requirements of the Group. Its primary responsibility is to ensure compliance with relevant legal and regulatory requirements and maintain effective internal controls.

The second line of defense includes functions such as risk management, compliance, legal and product control. It articulates standards and expectations for the effective management of risk and controls, including advising on applicable legal and regulatory requirements and publishing related policies, and monitors and assesses compliance with regulatory and internal standards. The second line of defense is separate from the front office and includes independent control functions responsible for reviewing, measuring and challenging front office activities and producing independent assessments and risk management reporting for senior management and regulatory authorities.

The third line of defense is the internal audit function, which monitors the effectiveness of controls across various functions and operations, including risk management and governance practices.

Our operations are regulated by authorities in each of the jurisdictions in which we conduct business. Central banks and other bank regulators, financial services agencies, securities agencies and exchanges and self-regulatory organizations are among the regulatory authorities that oversee our businesses. FINMA is our primary regulator.

→ Refer to "Regulation and supervision" in I – Information on the company for further information.

Our governance includes a committee structure and a comprehensive set of corporate policies which are developed, reviewed and approved by the Board, the Executive Board, their respective committees, the Group CRO, the Group CCRO, or the CCO since the organizational change on February 26, 2019, and the board of directors of significant subsidiaries, in accordance with their respective responsibilities and levels of authority.

→ Refer to "Board of Directors" and "Executive Board" in IV – Corporate Governance for further information.

Board of Directors

The Board is responsible for our strategic direction, supervision and control, and for defining our overall tolerance for risk. For this purpose, the Board approves the risk management framework and sets overall risk appetite in consultation with its Risk Committee (Risk Committee).

The **Risk Committee** is responsible for assisting the Board in fulfilling its oversight responsibilities by periodically reviewing the Group's risk management function, its resources and key risks.

The **Audit Committee** is responsible for assisting the Board in fulfilling its oversight responsibilities by monitoring management's approach with respect to financial reporting, internal controls, accounting and legal and regulatory compliance. Additionally, the Audit Committee is responsible for monitoring the independence and performance of internal and external auditors.

In 2018, the Board decided to establish the **Conduct and Financial Crime Control Committee**, which became effective in 2019. The Conduct and Financial Crime Control Committee assists the Board in fulfilling its oversight duties with respect to the Group's exposure to financial crime risk. It is tasked with monitoring and assessing the effectiveness of financial crime compliance programs and initiatives.

Executive Board

The Executive Board is responsible for developing and implementing our strategic business plans, subject to approval by the Board. It further reviews and coordinates significant initiatives for the risk management function and establishes Group-wide risk policies. The Group CRO and CCRO, or the CCO since the organizational change on February 26, 2019, are members of the Executive Board and represent the risk management and compliance functions, respectively, reporting to the Group CEO and, at least annually, to the Board.

Executive Board committees

The Capital Allocation & Risk Management Committee (CARMC) is responsible for overseeing and directing our risk profile, recommending risk limits at the Group level to the Risk Committee and the Board, establishing and allocating risk appetite among the various businesses, reviewing new significant business strategies or changes in business strategies including business migrations, making risk-related decisions on escalations, and for applying measures, methodologies and tools to monitor and manage the risk portfolio. CARMC meets monthly and conducts reviews according to the following three rotating cycles. The asset & liability management cycle reviews the funding and balance sheet trends and activities, plans and monitors regulatory and business liquidity requirements and internal and regulatory capital adequacy, provides governance and oversight over all material business migrations and ensures that legal entity strategic initiatives are within the Group's risk appetite and appropriately supported and controlled. The market & credit risks cycle defines and implements risk management strategies for the Group businesses, sets and approves risk appetite within Board-approved limits and other appropriate measures to monitor and manage the risk profile of the Group and allocates liquidity resources and sets liquidity risk limits. The internal control system cycle monitors and analyzes significant operational, legal and compliance risks, reviews and approves the business continuity program's alignment with the corporate strategy on an annual basis, sets limits, caps and triggers on specific businesses to control significant operational risk exposure, and reviews and assesses the appropriateness and efficiency of the internal control systems.

The Valuation Risk Management Committee (VARMC) is responsible for establishing policies regarding the valuation of certain material assets and the policies and calculation methodologies applied in the valuation process. Further, VARMC is responsible for monitoring and assessing valuation risks, reviewing inventory valuation conclusions and directing the resolution of significant inventory valuation issues.

The Risk Processes & Standards Committee (RPSC) reviews major risk management processes, issues general instructions, standards and processes concerning risk management, approves material changes in market, credit and operational risk management standards, policies and related methodologies, and approves the standards of our internal models used for calculating regulatory capital.

The Reputational Risk & Sustainability Committee (RRSC) sets policies and reviews processes and significant cases relating to reputational risks and sustainability issues. It also ensures adherence to our reputational and sustainability policies and oversees their implementation.

Divisional and legal entity risk management committees
Divisional and legal entity risk management committees review risk, legal, compliance and internal control matters specific to the divisions and individual legal entities, respectively.

Risk organization

The risk management function is responsible for providing risk management oversight and establishing an organizational basis to manage risk matters. The risk management function challenges and proactively engages with the business divisions in shaping the divisions' and the Group's risk profiles.

Our risk organization supports the Group's strategy and divisional structure. The divisional chief risk officers, who also act as legal entity chief risk officers for the most significant legal entities in their respective regions, assume an important role in this organization. From a people and business management perspective, the organizational setup of the risk function builds on a matrix structure, unifying global functions and divisional/legal entity perspectives.

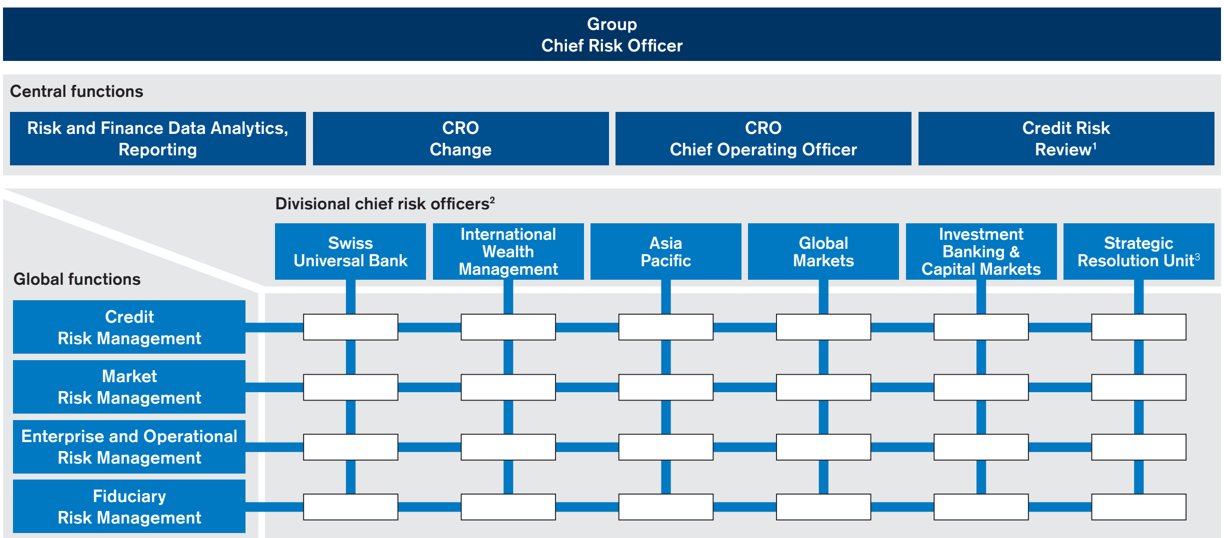
Our governance framework includes dedicated risk management committees for each division. The divisional and legal entity chief risk officer organizations have established granular risk appetite frameworks and reporting capabilities to cover the specific needs of their business divisions. The global risk functions drive our risk appetite, ensure globally harmonized models and methodologies, execute global regulatory deliverables, provide global limit frameworks and ensure risk conflict remediation.

The key elements of the risk organization include a matrix structure and central functions.

Matrix structure
Our matrix structure reflects the Group's business strategy and emphasizes the Group's legal entity considerations.

The global functions comprise credit, market, enterprise and operational (including liquidity) as well as fiduciary risk management, and are accountable for functional risk oversight and the risk limit framework at the global and local legal entity level. They are also responsible for functional models, methodologies and policies and function-related regulatory change.

Risk organization



1 Direct reporting line to the Board's Risk Committee, administratively reporting to the Group CRO.
2 The legal entity chief risk officer roles for the most significant legal entities are generally assumed by the divisional chief risk officers in their respective regions.
3 Beginning in 2019, the Strategic Resolution Unit has ceased to exist as a separate division of the Group. The residual portfolio remaining as of December 31, 2018 is now managed in an Asset Resolution Unit which will be separately disclosed within the Corporate Center.

The enterprise and operational risk management mandate is focused on the overarching risk framework, including risk appetite and stress testing, Group risk reporting, liquidity risk management, model risk management, operational risk management, business continuity management, risk-related regulatory management and coordination of our reputational risk-related activities.

The divisional chief risk officers for Swiss Universal Bank, International Wealth Management, Asia Pacific, Global Markets, Investment Banking & Capital Markets and (through December 2018) the Strategic Resolution Unit are responsible for ensuring alignment of the risk management function within our divisions.

The legal entity chief risk officers provide risk oversight for certain significant legal entities in the locations of our main operations. They define the local risk management and risk appetite frameworks and are responsible for meeting the legal-entity-specific regulatory requirements. The legal entity chief risk officer roles for our most significant legal entities are assumed by the divisional chief risk officers in their respective regions, except for Credit Suisse AG where the chief risk officer role is assumed by the Group CRO.

The heads of the global functions and the divisional/legal entity chief risk officers jointly manage the embedded functional teams.

Central functions
Risk and Finance Data Analytics, Reporting provides consistent reporting production, analytics and data management shared with finance functions. CRO Change is responsible for the portfolio of strategic change programs across the risk management function. The Group CRO's chief operating officer facilitates business management within the risk management function. Credit Risk Review is a review function independent from credit risk management with a direct reporting line to the Board's Risk Committee, administratively reporting to the Group CRO. Credit Risk Review assesses Credit Suisse's credit exposures and credit risk management processes and practices. Until August 2018, the head of Credit Risk Review was responsible for our comprehensive capital analysis and review (CCAR) challenge function which supports the application of the CCAR framework for our US intermediate holding company (IHC) and provides independent assessments of the processes for the development of the US IHC's capital plan. In August 2018, the CCAR challenge function responsibilities were transferred to the senior management of our US IHC. CCAR is a US regulatory framework introduced by the Fed to assess, regulate and supervise large financial institutions.

On June 28, 2018, the Fed released results of its annual CCAR stress tests, for the first time publicly releasing results for our US IHC. Our US IHC was projected to maintain capital ratios above minimum regulatory requirements in the adverse and severely adverse CCAR stress scenarios, and the Fed did not object to its proposed capital plan. As part of the stress testing requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), our US IHC was also required to conduct a mid-cycle stress test using a set of internally developed macroeconomic scenarios and submit the results to the Fed in October 2018. As previously disclosed, our US IHC was projected to maintain capital ratios above minimum regulatory requirements under the internally developed severely adverse scenario.

Compliance

The compliance function is a proactive, independent function working with the businesses to continuously challenge practices to manage compliance risk. As a second line of defense function, responsibilities include independently assessing compliance risk, monitoring and testing and reporting on adherence to the compliance risk appetite and other material matters to the Board and senior management. It also oversees regulatory interactions of the Group and assesses potential impact and monitors implementation of regulatory developments.

Our compliance organization supports the Group's strategy and divisional structure, with the involvement of the divisional chief compliance officers, who also provide compliance oversight for the most significant legal entities in their respective regions. The divisional chief compliance officers are responsible for providing independent oversight and control over the compliance and regulatory risks relating to their respective divisions and legal entities.

Central compliance functions

Central compliance functions, such as core compliance services, financial crime compliance and investigations, support all divisions by overseeing and managing global programs in partnership with the divisional chief compliance officers. The core compliance services function oversees framework design and establishes and monitors enterprise level standards and controls for compliance practices, surveillance and global programs (e.g., cross-border compliance, client tax compliance and conduct risk). The financial crime compliance function establishes and monitors compliance policies, guidelines, procedures and controls related to anti-money laundering, anti-corruption and sanctions. The investigations function is responsible for the identification and remediation of significant breaches in the Group's compliance processes and controls.

The regulatory affairs function, reporting directly to the CEO since the organizational change on February 26, 2019, supports the Group through management of regulatory relationships and interactions, including coordination of regulatory commitments on behalf of relevant divisions.

Risk culture

We base our business operations on conscious and disciplined risk-taking. We believe that independent risk management, compliance and audit processes with proper management accountability are critical to the interests and concerns of our stakeholders. Our risk culture is supported by the following principles:

- We establish a clear risk appetite that sets out the types and levels of risk we are prepared to take;
- Our risk management and compliance policies set out authorities and responsibilities for taking and managing risks;
- We actively monitor risks and take mitigating actions where they fall outside accepted levels;
- Breaches of risk limits are identified, analyzed and escalated, and large, repeated or unauthorized exceptions may lead to terminations, adverse adjustments to compensation or other disciplinary action; and
- We seek to establish resilient risk constraints that promote multiple perspectives on risk and reduce the reliance on single risk measures.

We actively promote a strong risk culture where employees are encouraged to take accountability for identifying and escalating risks and for challenging inappropriate actions. The businesses are held accountable for managing all of the risks they generate, including those relating to employee behavior and conduct, in line with our risk appetite. Expectations on risk culture are regularly communicated by senior management, reinforced through policies and training, and considered in the performance assessment and compensation processes and, with respect to employee conduct, assessed by formal disciplinary review committees.

We seek to promote responsible behavior through the Group's Code of Conduct, which provides a clear statement on the conduct standards and ethical values that we expect of our employees and members of the Board, so that we maintain and strengthen our reputation for integrity, fair dealing and measured risk-taking. In addition, our six conduct and ethics standards, which include client focus, meritocracy, stakeholder management, accountability, partner and transparency, are a key part of our effort to embed our core ethical values into our business strategy and the fabric of our organization.

They are designed to encourage employees to act with responsibility, respect, honesty and compliance to secure the trust of our stakeholders. Initiatives in this area have provided employees with practical guidance on careful and considered behavior and the importance of acting ethically and learning from mistakes. Our employee performance assessment and compensation processes are linked to the conduct and ethics standards and the Group's Code of Conduct.

→ Refer to "Conduct risk" in Risk coverage and management for further information.

BCBS 239

The BCBS published the "Principles for effective risk data aggregation and risk reporting" (BCBS 239) in 2013 in order to strengthen the risk data aggregation and risk reporting practices at banks and enhance their risk management and decision-making processes. Our program for implementing these principles regarding risk data aggregation and reporting at Credit Suisse was completed and operational as of December 31, 2018 and we are in the process of evidencing compliance with the BCBS 239 principles which we expect to complete in the first half of 2019.

Risk appetite framework

Overview

We maintain a comprehensive Group-wide risk appetite framework, which is governed by a global policy and provides a robust foundation for risk appetite setting and management across the Group. A key element of the framework is a detailed statement of the Board-approved risk appetite which is aligned to our financial and capital plans. The framework also encompasses the processes and systems for assessing the appropriate level of risk appetite required to constrain our overall risk profile.

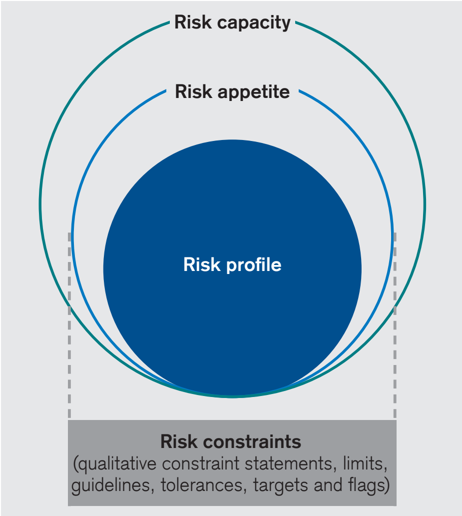
Risk capacity is the maximum level of risk that we can assume given our current level of resources before breaching any constraints determined by capital and liquidity needs, the operational environment and our responsibilities to depositors, shareholders, investors and other stakeholders. Risk appetite expresses the aggregate level and types of risk we are willing to assume within our risk capacity to achieve our strategic objectives and business plan. Risk profile is a point-in-time assessment of our net risk exposures aggregated within and across each relevant risk category and is expressed in a variety of different quantitative risk metrics and qualitative risk observations. The size of our risk profile is restricted to the planned level of our risk appetite through the use of risk constraints, such as limits, guidelines, tolerances and targets.

Key aspects and process

The Group risk appetite framework is governed by an overarching global policy that encompasses the suite of specific policies, processes and systems with which the risk constraints are calibrated and the risk profile is managed. The framework is guided by the following strategic risk objectives:

- maintaining Group-wide capital adequacy above minimum regulatory requirements under both normal and stressed conditions;
- promoting stability of earnings to support performance in line with financial objectives;
- ensuring sound management of liquidity and funding risk in normal and stressed conditions;
- proactively controlling concentration risks;
- managing operational and compliance risk within our enterprise risk and control framework (ERCF) to ensure sustainable performance;
- minimizing reputational risk; and
- managing and mitigating conduct risk.

Risk appetite framework – key definitions



Risk capacity Maximum level of risk that we can assume given our current level of resources before breaching any constraints determined by capital and liquidity needs, the operational environment and our responsibilities to depositors, shareholders, investors and other stakeholders.

Risk appetite Aggregate level and types of risk we are willing to assume within our risk capacity to achieve our strategic objectives and business plan.

Risk profile Point-in-time assessment of our net risk exposures aggregated within and across each relevant risk category and expressed in a variety of different quantitative risk metrics and qualitative risk observations.

Risk constraints Quantitative and qualitative measures based on forward-looking assumptions that allocate our aggregate risk appetite to businesses, legal entities, risk categories, concentrations and, as appropriate, other levels.

Group-wide risk appetite is determined in partnership with the financial and capital planning process on an annual basis, based on bottom-up forecasts that reflect planned risk usage by the businesses and top-down, Board-driven strategic risk objectives and risk appetite. Scenario stress testing of financial and capital plans is an essential element in the risk appetite calibration process as a key means through which our strategic risk objectives, financial resources and business plans are aligned. The capital plans are also analyzed using our economic capital coverage ratio, which provides a further means of assessing bottom-up risk plans with respect to available capital resources. The risk appetite is approved through a number of internal governance forums, including joint approval by the Group CRO and the CFO, the Risk Appetite Review Committee (a sub-committee of CARMC), CARMC and, subsequently, by the Board.

The risk appetite statement is the formal plan, approved by the Board, for our Group-wide risk appetite. Key divisional allocations are cascaded from the Group and approved in divisional risk management committees. Legal entity risk appetites are set by the local legal entity board of directors within the limits established by the Group. The top-down and bottom-up risk appetite calibration process includes the following key steps:

Top-down:
- Group-level strategic risk objectives are agreed by the Board in line with our financial and capital objectives.
- Top-down risk capacities and risk appetites are determined with reference to available resources and key thresholds, such as minimum regulatory requirements.
- A risk appetite statement is determined and approved annually by the Board, and is based on the strategic risk objectives, the comprehensive scenario stress testing of our forecasted financial results and capital requirements, and our economic capital framework. A semi-annual review of the risk appetite and capacity levels is performed. The risk appetite statement comprises quantitative and qualitative risk measures necessary for adequate control of the risk appetite across the organization. The review of the top-down and bottom-up risk appetite levels and their allocation between divisions and legal entities is performed by the Risk Appetite Review Committee.
- Separate legal entity risk appetite frameworks aligned to local regulatory requirements are in place for material subsidiaries. An integrated year-end planning process ensures that individual legal entity risk appetites are consistent with Group levels.
- Divisional risk committees are responsible for allocating risk appetite within the respective divisions based on individual business line reviews and requirements.

Bottom-up:
- Planned risk levels and related risk appetite requirements are provided by front office business experts in conjunction with financial and capital plans in order to ensure consistency with the business strategy. Risk plans are reviewed by the relevant risk management committees.
- Bottom-up risk forecasts are aggregated across businesses to assess divisional and Group-wide risk plans and to support management decisions on variations to existing risk appetite levels or the possible need for new risk appetite measures.
- The effectiveness of risk appetite in support of business strategy execution and delivery against financial objectives is assessed via a risk appetite effectiveness framework. This framework assists senior management and the Board in ensuring that appropriate levels of risk appetite are set and that the subsequent risk constraints are appropriately calibrated.
- Risk, financial and capital plans are jointly reviewed and approved by the Executive Board and the Board.

The chart "Risk appetite framework – key aspects" provides an overview of key Group-wide quantitative and qualitative aspects covered in our risk appetite statement for the Group and their connection to the division-specific risk appetite statements.

Risk appetite framework – key aspects

	Group-wide		Division-specific
Selected quantitative aspects	■ Economic risk capital limits ■ Liquidity ratios ■ Leverage ratios	■ Scenario loss limits ■ Risk-weighted assets ■ Look-through CET1 ratio (post stress testing)	■ Economic risk capital limits ■ Market risk limits ■ Credit risk limits ■ Operational risk tolerance levels
Selected qualitative aspects	■ Compliance with international and local laws and regulations ■ Minimizing reputational risk ■ Managing and mitigating conduct risk ■ Compliance with industry guidelines and internal policies ■ Managing credit risk		■ Avoidance of concentration risks ■ Adherence to suitability and appropriateness requirements ■ Operational risk tolerance statements

Thematic and exclusion risk appetite

As previously disclosed, in the second quarter of 2017 we amended and enhanced our risk appetite framework to provide additional governance and controls within our relevant transaction approval processes to distinguish between those types of business exposures held in the Strategic Resolution Unit that will be allowed for execution in our strategic divisions and those documented in our thematic and exclusion risk appetite framework that will be prohibited or for which we have limited risk appetite.

In the first quarter of 2018, CARMC approved the removal of 12 counterparties from the Group's thematic and exclusion risk appetite framework and the Risk Committee was subsequently notified of the risk appetite updates. The counterparties and associated trades were transferred from the Strategic Resolution Unit back to the Global Markets and Investment Banking & Capital Markets divisions in the first quarter of 2018. In the second quarter of 2018, after a business reassessment in connection with our planning relating to the withdrawal of the UK from the EU, the Audit Committee approved the transfer of assets and liabilities relating to Credit Suisse (Deutschland) Aktiengesellschaft from the Strategic Resolution Unit to the Investment Banking & Capital Markets division.

Risk constraints

A core aspect of our risk appetite framework is a sound system of integrated risk constraints to maintain our risk profile within our overall risk appetite. Our risk appetite framework utilizes a suite of different types of risk constraints to reflect the aggregate risk appetite of the Group and to further cascade risk appetite across our organization, including among business divisions and legal entities. The risk constraints restrict our maximum balance sheet and off-balance sheet exposure given the market environment, business strategy and financial resources available to absorb losses. Different levels of seniority are mapped to, and specific enforcement and breach response protocols are required for, each type of risk constraint. We define the following risk constraint categories:

- **Qualitative constraints** represent constraints that are used to manage identified but unquantifiable or subjective risks, with adherence assessed by the appropriate level of constraint authority.
- **Quantitative constraints** represent constraints that are used to manage identified quantifiable risks and exist in the form of limits, guidelines, tolerances, targets and flags.

Constraint authority for the risk constraints is determined by the relevant approving body and constraints are currently in effect for all key risk governance bodies and committees including the Board, its Risk Committee, the Executive Board and CARMC. The appropriateness of the constraint types for the various risk classes within our risk appetite, including market, credit, operational and liquidity risk, is determined considering the respective characteristics of the various risk constraint types. We define the following types of risk constraints:

- **Qualitative constraint statements** are required for all qualitative constraints. Qualitative constraint statements need to be specific and to clearly define the respective risk to ensure that the risk profile for unquantifiable or subjective risks is readily assessable.
- **Limits, guidelines and tolerances** are specific threshold levels for a given risk metric. Limits are binding thresholds that require discussion to avoid a breach and trigger immediate remediating action if a breach occurs. Guidelines are thresholds which, if breached, require an action plan to reduce risk below the guideline or to propose, justify and agree to adjust the guideline. Tolerances are designed as management thresholds to initiate discussion, and breach of a tolerance level triggers review by the relevant constraint authority.
- **Targets** represent the level of risk that the Group intends to accept in pursuit of business objectives at a specific point in time in the future.
- **Flags** are early warning indicators, which serve primarily as a business risk management and supervisory control tool for our front offices, Treasury and the risk management function. Flags can be set for any quantifiable risk and may be complementary to other types of constraints.

With respect to limits, guidelines and tolerances, established criteria are applied in the selection of the appropriate risk constraint, including the assessment of (i) the materiality of the respective risk metric with regard to its contribution to the overall Group risk appetite; (ii) the importance of the risk constraint to the organization from a qualitative perspective; (iii) the characteristic of the respective risk, e.g., risk concentrations or high priority risk for the Group; and (iv) the availability of mitigating actions to manage the risk profile of the Group in relation to the respective risk.

We have established a constraint structure which manages the Group's risk profile using multiple metrics, including economic risk capital, VaR, scenario analysis and various exposure limits at the Group level. The overall risk limits for the Group are set by the Board in consultation with its Risk Committee and are binding. In the rare circumstance where a breach of these limits would occur, it would result in a notification to the Chair of the Board's Risk Committee and the Group CEO, and written notification to the full Board at its next meeting. Following notification, the Group CRO may approve positions that exceed the Board limits up to a predefined level and any such approval is reported to the full Board. Positions that exceed the Board limits by more than the predefined level may only be approved by the Group CRO and the full Board acting jointly. In 2018 and 2017, no Board limits were exceeded.

Dedicated constraints are also in place to cover the specific risk profiles of individual businesses and legal entities. In the context of the overall risk appetite of the Group, as defined by the limits set by the Board and its Risk Committee, CARMC is responsible for allocating divisional risk limits and more specific limits deemed necessary to control the concentration of risk within individual lines of business. The divisional risk management committees and the divisional and legal entity chief risk officers are responsible for allocating risk appetite further within the organization. For this purpose, they use a detailed framework of individual risk limits designed to control risk-taking at a granular level by individual businesses and in the aggregate. The risk constraints are intended to:

- limit overall risk-taking to the Group's risk appetite;
- trigger senior management discussions with the businesses involved, risk management and governance committees in case of substantial change in the overall risk profile;
- ensure consistent risk measurement across businesses;
- provide a common framework for the allocation of resources to businesses; and
- provide a basis for protecting the Group's capital base and meeting strategic risk objectives.

The limit owners are responsible for reviewing warning triggers for risk limits. They may set warning triggers for potential limit excesses at any level lower than the approved limits as deemed appropriate after taking into account the nature of the underlying business. Strict escalation procedures apply to any limit breaches and, depending on the severity of the excess, the Group CRO or divisional chief executive officer's approval may be required. Serious excesses are highlighted in periodic Risk Committee meeting management summaries. An assessment by the disciplinary review committee and any disciplinary actions that may be taken are considered in the regular performance assessment and compensation processes.

Risk coverage and management

We use a wide range of risk management practices to address the variety of risks that arise from our business activities. Policies, processes, standards, risk assessment and measurement methodologies, risk appetite constraints, and risk monitoring and reporting are key components of our risk management practices. Our risk management practices complement each other in our analysis of potential loss, support the identification of interdependencies and interactions of risks across the organization and provide a comprehensive view of our exposures. We regularly review and update our risk management practices to ensure consistency with our business activities and relevance to our business and financial strategies. Risk management practices have evolved over time without a standardized approach within the industry, therefore comparisons across firms may not be meaningful. Our key risk types, definitions and key risk evaluation methods are summarized in the table "Key risk types overview".

It is important to both evaluate each risk type separately and assess their combined impact on the Group, which helps ensure that our overall risk profile remains within the Group-wide risk appetite.

The primary evaluation methods used to assess Group-wide quantifiable risks include economic risk capital and stress testing. Economic risk capital captures both position risk, such as market risk and credit risk, and non-position risk, such as operational risk, pension risk and certain business risks (e.g., expense risk, owned real estate risk and interest rate risk on treasury positions), and is a key component in our risk appetite framework with limits established to control aggregate risk. Stress testing also captures position and non-position risks and provides an evaluation method capable of capturing both historic and forward-looking scenarios to ensure that aggregate risks are managed within the Group-wide risk appetite also under stressed conditions.

The description of our economic risk capital methodology and our stress testing framework below is followed by a more detailed description of our key risk types.

→ Refer to "Liquidity and funding management" for further information on liquidity and funding risks-related evaluation methods used in our liquidity risk management framework and for funding management.

Key risk types overview

Key risk types and definition	Key risk evaluation methods
Liquidity and funding risks: The risk that we do not have the appropriate amount of funding and liquidity to meet our obligations.	Liquidity coverage ratio, net stable funding ratio, liquidity barometer, stress testing
Market risk: The risk of financial loss from adverse changes in market risk factors, including interest rates, credit spreads, foreign exchange rates, equity and commodity prices, and other factors such as market volatility and the correlation of market prices across asset classes.	Value-at-risk, sensitivities, economic risk capital, stress testing
Credit risk: The risk of financial loss arising as a result of a borrower or counterparty failing to meet its financial obligations or as a result of deterioration in the credit quality of the borrower or counterparty.	Gross and net loan exposures, commitments, probability of default, loss given default, exposure at default, potential future exposure, country exposures, economic risk capital, stress testing
Model risk: The risk of adverse consequences from decisions made based on model results that may be incorrect, misinterpreted or used inappropriately.	Risk and control self-assessments, independent model validation, aggregate model risk reports
Operational risk: The risk of financial loss arising from inadequate or failed internal processes, people or systems, or from external events.	■ Enterprise risk and controls framework including risk and control assessments, compliance risk assessments, key risk and control indicators, internal and external incident data, scenario analysis, stress testing ■ Group Code of Conduct and associated conduct and ethics standards ■ Technology risk management program, business continuity testing ■ Legal risk assessments
Compliance and regulatory risk: The risk from the failure to comply with laws, regulations, rules or market standards that may have a negative effect on our franchise and clients we serve. It includes the risk that changes in laws, regulations, rules or market standards may limit our activities and have a negative effect on our business or our ability to implement strategic initiatives, or can result in an increase in operating costs for the business or make our products and services more expensive for clients.	
Conduct risk: The risk that improper behavior or judgment by our employees may result in a negative financial, non-financial or reputational impact to our clients, employees or the Group or negatively impact the integrity of the financial markets.	
Technology risk: The risk that technology-related failures, such as service outages or information security incidents, may disrupt business.	
Legal risk: The risk of loss or any other material adverse impact arising from circumstances including the failure to comply with legal obligations, changes in enforcement practices, the making of a legal challenge or claim against us, our inability to enforce legal rights or the failure to take measures to protect our rights.	
Reputational risk: The risk that negative perception by our stakeholders may adversely impact client acquisition and damage our business relationships with clients and counterparties, affecting staff morale and reducing access to funding sources.	■ A comprehensive assessment for these risk types may be performed either periodically and/or in response to particular events. ■ The results of the analysis impacts management actions such as strategy adjustments, tactical measures, policy adjustments, event-driven crisis guidelines, staff training and individual performance measurement. ■ The risk management actions may include both precautionary activities to manage risk and issue resolution activities to recover from adverse developments
Fiduciary risk: The risk of financial loss arising when the Group or its employees, acting in a fiduciary capacity as trustee, investment manager or as mandated by law, do not act in the best interest of the client in connection with the advice and management of our client's assets including from a product-related market, credit, liquidity, counterparty and operational risk perspective.	
Strategic risk: The risk of financial loss or reputational damage arising from inappropriate strategic decisions, ineffective implementation of business strategies or an inability to adapt business strategies in response to changes in the business environment.	

Economic risk capital

Overview

Economic risk capital is used as a consistent and comprehensive tool for capital management, limit monitoring and performance management. Economic risk capital is our core Group-wide risk management tool for measuring and reporting the combined impact from quantifiable risks such as market, credit, operational, pension and expense risks, each of which has an impact on our capital position.

Under the Basel framework, we are required to maintain a robust and comprehensive framework for assessing capital adequacy, defining internal capital targets and ensuring that these capital targets are consistent with our overall risk profile and the current operating environment. Our economic risk capital model represents our internal view of the amount of capital required to support our business activities.

→ Refer to "Capital strategy" and "Regulatory framework" in Capital management for further information on our capital management framework.

With effect from January 1, 2018, we implemented a revised economic risk capital framework. We redeveloped the position risk methodology by introducing new and enhancing previously used credit and market risk models. Our redesigned credit risk model is based on a multi-factor Monte-Carlo-simulation, compared to the single-factor model used previously. Our new market risk model incorporates new price and spread shocks for securitized products and illiquid private equity investments and uses historical simulation for equity and fixed income trading, compared to the combination of credit spread shocks and historical simulation used in previous models. In October 2018, we further developed the market risk framework, reflecting an improved recognition of hedging benefits between securitized products and underlying hedges, a recalibration of the 99.97% "gone concern" scalars for securitized products and certain traded risk, and an enhanced annualization approach. Market risks not covered by these models are captured using a risk-not-in-economic-risk-capital model, which is now also part of the market risk framework reflected in position risk. In addition, during the first quarter of 2018, we enhanced the granularity of credit conversion factors and data feeds for securitizations in our position risk model. Our position risk categories reflect the redeveloped position risk methodology and are described in the table "Position risk categories". In the operational risk model, we removed the US private banking losses from the data set, applied a discount to the RMBS losses to better reflect the internal view of the forward-looking risk profile and, as a result of these modifications, updated the divisional allocations. Further, in the other risks category, we improved our pension risk methodology to ensure that our pension plan assets and liabilities risk is modeled in line with the redeveloped position risk framework. Finally, we introduced an enhanced and newly calibrated correlation matrix to aggregate across all position, operational and other risk models, in order to make the correlations among risk categories more responsive to changes in the portfolio and in market conditions.

During 2018, we further embedded the new economic risk capital framework into our risk appetite and risk management framework. The new framework should enable us to better assess, monitor and manage capital adequacy and solvency risk in both "going concern" and "gone concern" scenarios. In a "going concern" scenario, we hold sufficient capital to absorb losses to ensure continuity of service. In a "gone concern" scenario, we hold sufficient capital to fund an orderly resolution without recourse to public resources.

→ Refer to "Methodology and model developments" in Risk review and results – Economic risk capital review for further information.

Methodology and scope

Economic risk capital measures risks in terms of economic realities rather than regulatory or accounting rules and estimates the amount of capital needed to remain solvent and in business under extreme market, business and operating conditions over the period of one year, given our target financial strength (our long-term credit rating). Economic risk capital is set to a level needed to absorb unexpected losses at a confidence level of 99.97%. Our economic risk capital model is a set of methodologies used for measuring quantifiable risks associated with our business activities on a consistent basis. It is calculated separately for position risk (reflecting our exposure to market and credit risks), operational risk and other risks. Within each of these risk categories, risks are further divided into subcategories, for which economic risk capital is calculated using the appropriate specific methodology. Some of these methodologies are common to a number of risk subcategories, while others are tailored to the particular features of single, specific risk types included in position risk, operational risk and other risks. Economic risk capital is calculated by aggregating position, operational and other risks.

Position risk and diversification benefit

Position risk is the level of unexpected loss from our portfolio of balance sheet and off-balance sheet positions over a one-year holding period and includes market and credit risks. Position risk is calculated at a 99% confidence level for risk management purposes reflecting a "going concern" scenario. Position risk is also calculated at a 99.97% confidence level for capital management purposes reflecting a "gone concern" resolution scenario. Our position risks categories are described in the table "Position risk categories".

To determine our overall position risk, we consider the diversification benefit across risk types. Diversification benefit represents the reduction in risk that occurs when combining different, not perfectly correlated risk types in the same portfolio and is measured as the difference between the sum of position risk for the individual risk types and the position risk calculated for the combined portfolio. Hence, position risk for the combined portfolio is non-additive across risk types and is lower than the sum of position risk of its individual risk types due to risk reduction (or benefit) caused by portfolio diversification. When analyzing position risk for risk management purposes, we look at individual risk types before and after the diversification benefit.

As part of our overall risk management, we hold a portfolio of hedges. Hedges are impacted by market movements, similar to other trading securities, and may result in gains or losses which offset losses or gains on the portfolios they were designated to hedge. Due to the varying nature and structure of hedges, these gains or losses may not wholly offset the losses or gains on the portfolios.

Operational risk

Operational risk is the risk of financial loss arising from inadequate or failed internal processes, people and systems or from external events. We use an internal model to calculate the economic capital requirement for operational risk at a 99.97% confidence level and a one-year holding period. A loss distribution approach based on historical data on internal and relevant external losses of peers is used to generate a loss distribution for a range of potential operational risk loss scenarios, such as unauthorized trading incidents, business interruption, fraud or other material business disruptions. The parameters estimated through the quantitative model are reviewed by business experts and senior management in order to take account of the business environment and internal control factors and to reflect a forward-looking view in the estimate. The capital calculation also includes a component to reflect litigation events and insurance mitigation.

Position risk categories

	Risks captured
Credit risk	■ Risk of counterparty defaults relating to investment banking credit exposures ■ Risk of counterparty defaults and potential changes in creditworthiness relating to private banking corporate and retail credit exposures
Non-traded credit spread risk	■ Potential changes in creditworthiness relating to investment banking credit exposures
Securitized products	■ Residential real estate activities, including residential mortgage-backed securities, residential mortgage loans and real estate acquired at auction ■ Commercial real estate activities, including commercial mortgage-backed securities, commercial loans and real estate acquired at auction ■ Other securitized products, including asset-backed securities and other trade receivables ■ Benefits from certain market risk hedges
Traded risk	■ Interest rate levels and volatilities ■ Foreign exchange rates and volatilities ■ Equity prices and volatilities ■ Commodity prices and volatilities ■ Traded credit spreads ■ Equity risk arbitrage activities, in particular, the risk that an announced merger may not be completed ■ Illiquid hedge fund exposures ■ Life finance and litigation business activities ■ Risks currently not implemented in our economic risk capital models for traded risks, primarily for fixed income and equity trading, such as certain basis risks, higher order risks and cross risks between asset classes
Emerging markets country event risk	■ Loss due to significant country events ■ Corporate counterparty defaults triggered by sovereign defaults ■ Risk of related disturbance in neighboring countries or countries in the same region
Equity investments	■ Private equity and other illiquid equity investment exposures

Other risks

The other risks category includes the following:

- Our expense risk measures the potential difference between expenses and revenues in a severe market event, excluding the elements captured by position risk and operational risk, using conservative assumptions regarding the earnings capacity and the ability to reduce the cost base in a crisis situation.
- Pension risk is the risk that we, as a plan sponsor, are required to fund a deficit in employee pension schemes in an extreme event. It covers fluctuations in our pension plan assets and liabilities which can lead to potential funding shortfalls. Funding shortfalls can arise from a decline in asset values and/or an increase in the present value of liabilities. The shortfall would need to be funded using available resources. In order to recognize the potential for a funding shortfall, we apply an economic risk capital charge.
- Owned real estate risk is defined as the capital at risk which arises from fluctuations in the value of buildings owned by the Group.
- Foreign exchange risk is the risk arising from a currency mismatch between available economic capital and economic risk capital required.
- Corporate interest rate risk is the interest rate risk on our treasury positions arising from discounting our client interest rate margins.
- The impact from deferred share-based compensation awards captures the economic benefit that may result from covering our structural short obligations to deliver own shares through market purchases during times of falling market prices.

Available economic capital

Available economic capital is an internal view of the capital available to absorb losses based on the reported BIS look-through CET1 capital under Basel III, with economic adjustments applied to provide consistency with our economic risk capital. It enables a comparison between capital needs (economic risk capital) and capital resources (available economic capital).

Economic risk capital coverage ratio

Economic risk capital coverage ratio is defined as the ratio of capital available to absorb losses in a “gone concern” scenario (available economic capital) to capital needs (economic risk capital). The economic risk capital coverage ratio is primarily meant to provide an assessment of our solvency and reflects our best internal assessment of risk and loss absorbing capacity in an extreme scenario. Furthermore, the economic risk capital coverage ratio is embedded in our risk appetite framework through our capital adequacy objective. We also plan to incorporate the “going concern” economic risk capital coverage ratio into our risk appetite and risk management frameworks, to supplement the “gone concern” coverage ratio introduced in 2015.

The economic risk capital coverage ratio operates with a number of distinct bands that serve as key controls for monitoring and managing our operational solvency. An economic risk capital coverage ratio lower than 125% requires senior management review, followed by an action plan at a coverage ratio lower than 110%. Immediate actions such as risk reductions or capital measures would be triggered at a coverage ratio lower than 100%. The Board has set the minimum level for this coverage ratio at 80%.

Governance
Our economic risk capital framework is governed and maintained by a dedicated steering committee, which regularly reviews, assesses and updates the economic risk capital methodology in light of market and regulatory developments, risk management practice and organizational changes. In addition, the steering committee approves new methodologies and prioritizes the implementation for its three components (position risk, operational risk and other risks).

Stress testing framework

Overview
Stress testing or scenario analysis provides an additional approach to risk management and formulates hypothetical questions, including what would happen to our portfolio if, for example, historic or adverse forward-looking events were to occur. A well-developed stress testing framework provides a powerful tool for senior management to identify these risks and also take corrective actions to protect the earnings and capital from undesired impacts.

Stress testing is a fundamental element of our Group-wide risk appetite framework included in overall risk management to ensure that our financial position and risk profile provide sufficient resilience to withstand the impact of severe economic conditions. Stress testing results are monitored against limits, and are used in risk appetite discussions and strategic business planning and to support our internal capital adequacy assessment. Within the risk appetite framework, CARMC sets Group-wide and divisional stressed position loss limits to correspond to minimum post-stress capital ratios. Currently, limits are set on the basis of look-through BIS CET1 capital ratios. Stress tests also form an integral part of the Group's capital planning and the recovery and resolution plan (RRP) process. Within the RRP, stress tests provide the indicative scenario severity required to reach recovery and resolution capital levels.

Stress testing provides key inputs for managing the following objectives of the risk appetite framework:
- Ensuring Group-wide capital adequacy on both a regulatory basis and under stressed conditions: We run a suite of scenarios on forecasted financial metrics such as revenues, expenses, pre-tax income and risk-weighted assets. The post-stress capital ratios are assessed against the risk appetite of the Group.
- Maintaining stable earnings: We mainly use stress testing to quantitatively assess earnings stability risk. Earnings-loss-triggers are established and monitored to contain excessive risk-taking which could compromise our earnings stability.

We also conduct externally defined stress tests that meet the specific requirements of regulators. For example, as part of various regular stress tests and analysis, FINMA requires a semi-annual loss potential analysis that includes an extreme scenario that sees European countries experience a severe recession resulting from the worsening of the European debt crisis as well as a scenario focusing on a financial crisis in China and the US.

Methodology and scope of Group-wide stress testing
Stress tests are carried out to determine stressed position losses, earnings volatility and stressed capital ratios using historical, forward-looking and reverse stress testing scenarios. The scope of stress testing includes market, credit default, operational, business and pension risk. Stress tests also include the scenario impact on risk-weighted assets through changes to market, credit and operational components.

We use historical stress testing scenarios to consider the impact of market shocks from relevant periods of extreme market disturbance. Standardized severity levels allow comparability of severity across differing risk types. The calibration of bad day, bad week, severe event and extreme event scenarios involves the identification of the worst moves that have occurred in recent history. Severe flight to quality (SFTQ) is a key scenario used for Group-wide stress testing and risk appetite setting. It is a combination of market shocks and defaults that reflects conditions similar to what followed the 2008/2009 financial crisis. The SFTQ scenario assumes a severe crash across financial markets, along with stressed default rates.

We use forward-looking stress testing scenarios to complement historical scenarios. The forward-looking scenarios are centered on potential macroeconomic, geopolitical or policy threats. The Scenario Management Oversight Committee, comprised of internal economists, front office and representatives of the risk management and finance function, discusses the backdrop to several forward-looking scenarios. The Scenario Management Oversight Committee reviews a wide range of scenarios and selects those that are most relevant to the analysis of key macroeconomic shocks. Some examples of forward-looking scenarios include US and European country recessions, a so-called emerging markets economic "hard landing" and the impact of monetary policy changes by central banks. Various scenarios are also used to mitigate concentration risks across the entire firm, such as the credit concentration scenario. During 2018, the Group continued to focus on the following forward-looking scenarios:
- Financial sector problems in the eurozone: the markets challenge the solvency of a systemically-important bank, which puts the overall European financial sector and selected eurozone countries under acute pressure. The European economy is forced into recession. Contagion from a European recession to the US and emerging market economies is assumed to be substantial.
- An emerging markets "hard landing" scenario: there is a severe economic slowdown in China driven by a wave of defaults in the private non-financial and financial sectors. The problems in China negatively impact all large emerging markets through lower commodity prices, increased capital flight and reduced intra-regional foreign trade. There is also significant contagion to the economy in the US and in Europe.
- Stress scenarios for the UK and for the US: the scenarios take into account the large increase in economic policy outlook

uncertainties and the higher risk that inflation significantly accelerates, bringing about a disorderly rise in government bond yields. The UK stress scenario focuses on the risks which may materialize from the negotiations on leaving the EU. The US stress scenario focuses on the business risks which may materialize from more expansionary fiscal policies and from any shift toward more protectionist foreign trade practices.

The scenarios are reviewed and updated regularly as markets and business strategies evolve. In 2018, a one-in-three years likelihood scenario called "flight to quality lite" (FTQ Lite) was developed to reflect a scenario with a lower severity of impact than SFTQ but with a higher likelihood of occurrence. FTQ Lite is used to test the earnings robustness of the Group. In addition to these periodic scenario analyses, we also perform ad hoc scenario analyses, for example in respect of the devaluation of the Turkish lira in the first half of 2018, in connection with current events as a proactive risk management tool.

We use reverse stress testing scenarios to complement traditional stress testing and enhance our understanding of business model vulnerabilities. Reverse stress testing scenarios define a range of severe adverse outcomes and identify what could lead to these outcomes. The more severe scenarios include large counterparty failures, sudden shifts in market conditions, operational risk events, credit rating downgrades and the shutdown of wholesale funding markets.

Governance

Our stress testing framework is comprehensive and governed by a dedicated steering committee, the Scenario Steering Committee. The Scenario Steering Committee reviews the scenario methodology and approves changes to scenario frameworks. It is comprised of experts in stress methodologies representing various risk functions (market risk, liquidity risk, credit risk and operational risk) and also represents the Group divisions and major legal entities.

The Scenario Management Oversight Committee has received responsibility from CARMC for the Group-wide scenario calibration and analysis process, including the design of scenarios and the assessment and approval of scenario results. Stress tests are conducted on a regular basis and the results, trend information and supporting analysis are reported to the Board, senior management and regulators.

Market risk

Definition

Market risk is the risk of financial loss arising from movements in market risk factors. The movements in market risk factors that generate financial losses are considered to be adverse changes in interest rates, credit spreads, foreign exchange rates, equity and commodity prices and other factors, such as market volatility and the correlation of market prices across asset classes. A typical transaction or position in financial instruments may be exposed to a number of different market risk factors. Our trading portfolios (trading book) and non-trading portfolios (banking book) have different sources of market risk.

Sources of market risk

Market risks arise from both our trading and non-trading business activities. The classification of assets and liabilities into trading book and banking book portfolios determines the approach for analyzing our market risk exposure. This classification reflects the business and risk management perspective with respect to trading intent, and may be different from the classification of these assets and liabilities for financial reporting purposes.

Trading book

Market risks from our trading book relate to our trading activities, primarily in Global Markets (which includes International Trading Solutions), Asia Pacific and the Strategic Resolution Unit. Our trading book, as measured for risk management purposes, typically includes fair-valued positions only, primarily of the following balance sheet items: trading assets and trading liabilities, investment securities, other investments, other assets (mainly derivatives used for hedging, loans and real estate held-for-sale), short-term borrowings, long-term debt and other liabilities (mainly derivatives used for hedging).

We are active globally in the principal trading markets, using a wide range of trading and hedging products, including derivatives and structured products. Structured products are customized transactions often using combinations of derivatives and are executed to meet specific client or internal needs. As a result of our broad participation in products and markets, our trading strategies are correspondingly diverse and exposures are generally spread across a range of risks and locations.

The market risks associated with the entire portfolio, including the embedded derivative elements of our structured products, are actively monitored and managed on a portfolio basis as part of our overall trading book and are reflected in our VaR measures.

Banking book

Market risks from our banking book primarily relate to asset and liability mismatch exposures, equity participations and investments in bonds and money market instruments. Our businesses and the treasury function have non-trading portfolios that carry market risks, mainly related to changes in interest rates but also to changes in foreign exchange rates, equity prices and, to a lesser extent, commodity prices. Our banking book, as measured for risk management purposes, includes a majority of the following balance sheet items: loans, central bank funds sold, securities purchased under resale agreements and securities borrowing transactions, cash and due from banks, brokerage receivables, due to banks, customer deposits, central bank funds purchased, securities sold under repurchase agreements and securities lending transactions, brokerage payables, selected positions of short-term borrowings and long-term debt, hedging instruments and other assets and liabilities not included in the trading portfolio.

We assume interest rate risks in our banking book through lending and deposit-taking, money market and funding activities, and the deployment of our consolidated equity as well as other activities, including market making and trading activities involving banking book positions at the divisional level. Savings accounts and many other retail banking products have no contractual maturity date or direct market-linked interest rate and are risk-managed on a pooled basis using replication portfolios on behalf of our private banking, corporate and institutional businesses. The replication portfolios approximate the interest rate characteristics of the underlying products. This particular source of market risk is monitored on a daily basis.

The majority of non-trading foreign exchange risk is associated with our net investment in foreign branches, subsidiaries and affiliates denominated in currencies other than Swiss francs. This exposure is actively managed to hedge our capital and leverage ratios and is governed within our risk appetite framework.

Evaluation and management of market risk

We use market risk measurement and management methods capable of calculating comparable exposures across our many activities and employ focused tools that can model unique characteristics of certain instruments or portfolios. The tools are used for internal market risk management, internal market risk reporting and external disclosure purposes. Our principal market risk measurement for the trading book is VaR. In addition, our market risk exposures are reflected in scenario analysis, as included in our stress testing framework, position risk, as included in our economic risk capital, and sensitivity analysis. Each market risk measurement aims to estimate the potential loss that we can incur due to an adverse market movement with varying degrees of severity. VaR, scenario analysis, position risk and sensitivity analysis complement each other in our market risk assessment and are used to measure market risk at the Group level. Our risk management practices are regularly reviewed to ensure they remain appropriate.

The Group's overall limit framework encompasses specific limits on a large number of different products and risk type concentrations at the Group, divisional and legal entity levels. For example, there are controls over consolidated trading exposures, the mismatch of interest-earning assets and interest-bearing liabilities, private equity and seed capital. Risk limits are cascaded to lower organizational levels within the businesses. Risk limits are binding and generally set close to the planned risk profile to ensure that any meaningful increase in risk exposures is promptly escalated. The Group's Organizational Guidelines and Regulations and the Group's policies determine limit-setting authority, temporary modification of such limits in certain situations and required approval authority at the Group, Bank, divisional, business and legal entity levels for any instances that could cause such limits to be exceeded. For example, with respect to market risk limits, the divisional chief risk officers and certain other members of senior management have the authority to temporarily increase the divisional risk committee limits by an approved percentage for a specified maximum period. Market risk limit excesses are subject to a formal escalation procedure and the incremental risk associated with the excess must be approved by the responsible risk manager within market risk management, with escalation to senior management if certain thresholds are exceeded. The majority of the market risk limits are monitored on a daily basis. Limits for which the inherent calculation time is longer or for which the risk profile changes less often are monitored less frequently depending on the nature of the limit (weekly, monthly or quarterly). For example, limits relating to illiquid investments are monitored on a monthly basis. The business is mandated to remediate market risk limit excesses within three business days upon notification. Remediation actions which take longer than three days are subject to an out-of-policy remediation process with senior management escalation. All limit excesses identified in 2018 were resolved in line with applicable policy requirements.

For the purpose of this disclosure, market risk in the trading book is mainly measured using VaR and market risk in our banking book is mainly measured using sensitivity analysis on related market factors.

Value-at-risk

VaR is a risk measure which quantifies the potential loss on a given portfolio of financial instruments over a certain holding period and that is expected to occur at a certain confidence level. VaR can be calculated for all financial instruments with adequate price histories. Positions are aggregated by risk category rather than by product. For example, interest rate risk VaR captures potential losses driven by fluctuations of interest rates affecting a wide variety of interest rate products (such as interest rate and foreign exchange swaps or swaptions) as well as other products (such as foreign exchange, equity and commodity options) for which interest rate risk is not the primary market risk driver. The use of VaR allows the comparison of risk across different businesses. It also provides a means of aggregating and netting a variety of positions within a portfolio to reflect actual correlations between different assets, applying the concept of portfolio diversification benefit described above for position risk. Our VaR model is designed to take into account a comprehensive set of risk factors across all asset classes.

VaR is an important tool in risk management and is used for measuring quantifiable risks from our activities exposed to market risk on a daily basis. In addition, VaR is one of the main risk measures for limit monitoring, financial reporting, calculation of regulatory capital and regulatory backtesting.

Our VaR model is predominantly based on historical simulation which derives plausible future trading losses from the analysis of historical movements in market risk factors. The model is responsive to changes in market conditions through the use of exponential weighting, which applies a greater weight to more recent events, and the use of expected shortfall equivalent measures to ensure all extreme adverse events are considered in the model. We use the same VaR model for risk management (including limit monitoring and financial reporting), regulatory capital calculation and regulatory backtesting purposes, although confidence level, holding period and the scope of financial instruments considered can be different.

For our risk management VaR, we use a two-year historical dataset, a one-day holding period and a 98% confidence level. This means that we would expect daily mark-to-market trading losses to exceed the reported VaR not more than twice in 100 trading days over a multi-year observation period. This measure captures risks in trading books only and includes securitization positions. It is closely aligned to the way we consider the risks associated with our trading activities and to the way we measure regulatory VaR for capital purposes. For internal risk management and limit monitoring purposes we add certain banking book positions to the scope of the risk management VaR calculation.

For regulatory capital purposes, we operate under the Basel III market risk framework which includes the following components for the calculation of regulatory capital: regulatory VaR, stressed VaR, IRC, RNIV and stressed RNIV. The regulatory VaR for capital purposes uses a two-year historical dataset, a ten-day holding period and a 99% confidence level. This measure captures all risks in the trading book and foreign exchange and commodity risks in the banking book and excludes securitization positions, as these are treated under the securitization approach for regulatory purposes. Stressed VaR replicates the regulatory VaR calculation on the Group's current portfolio over a continuous one-year observation period that results in the highest VaR. The historical dataset starting in 2006 avoids the smoothing effect of the two-year dataset used for our risk management and regulatory VaR, allows for the capturing of a longer history of potential loss events and helps reduce the pro-cyclicality of the minimum capital requirements for market risk. IRC is a regulatory capital charge for default and migration risk on positions in the trading books. RNIV captures a variety of risks, such as certain basis risks, higher order risks and cross risks between asset classes, not currently captured by the VaR model for example due to lack of sufficient or accurate data.

Backtesting VaR uses a two-year historical dataset, a one-day holding period and a 99% confidence level. This measure captures risks in the trading book and includes securitization positions. Backtesting VaR is not a component used for the calculation of regulatory capital but may have an impact through the regulatory capital multiplier if the number of backtesting exceptions exceeds regulatory thresholds.

Assumptions used in our market risk measurement methods for regulatory capital purposes are compliant with the standards published by the BCBS and other international standards for market risk management. We have approval from FINMA, as well as from other regulators for our subsidiaries, to use our regulatory VaR model in the calculation of market risk capital requirements. Ongoing enhancements to our VaR methodology are subject to regulatory approval or notification depending on their materiality, and the model is subject to regular reviews by regulators and the Group's independent model risk management function.

Information required under Pillar 3 of the Basel framework related to risk is available on our website.

→ Refer to "credit-suisse.com/regulatorydisclosures" for further information.
→ Refer to "Risk-weighted assets" in Capital management for further information on the use of our regulatory VaR model in the calculation of trading book market risk capital requirements.

VaR assumptions and limitations

The VaR model uses assumptions and estimates that we believe are reasonable, but VaR only quantifies the potential loss on a portfolio based on historical market conditions. The main assumptions and limitations of VaR as a risk measure are:

- VaR relies on historical data to estimate future changes in market conditions. Historical scenarios may not capture all potential future outcomes, particularly where there are significant changes in market conditions, such as increases in volatilities and changes in the correlation of market prices across asset classes;
- VaR provides an estimate of losses at a specified confidence level; the use of an expected shortfall equivalent measure allows all extreme adverse events to be considered in the model;
- VaR is based on either a one-day (for internal risk management, backtesting and disclosure purposes) or a ten-day (for regulatory capital purposes) holding period. This assumes that risks can be either sold or hedged over the holding period, which may not be possible for all types of exposure, particularly during periods of market illiquidity or turbulence; it also assumes that risks will remain in existence over the entire holding period; and
- VaR is calculated using positions held at the end of each business day and does not include intra-day changes in exposures.

To mitigate some of the VaR limitations and estimate losses associated with unusually severe market movements, we use other metrics designed for risk management purposes and described above, including stressed VaR, position risk and scenario analysis.

For some risk types there can be insufficient historical data for a calculation within the Group's VaR model. This often happens because underlying instruments may have traded only for a limited time. Where we do not have sufficient market data, either market data proxies or extreme parameter moves for these risk types are used. Market data proxies are selected to be as close to the underlying instrument as possible. Where neither a suitable market dataset nor a close proxy is available, extreme parameter moves are used.

We use a risk factor identification process to ensure that risks are identified and measured correctly. There are two parts to this process. First, the market data dependency approach systematically determines the risk requirements based on data inputs used by front-office pricing models and compares this with the risk types that are captured by the Group's VaR model and the RNIV framework. Second, the product-based approach is a qualitative analysis of product types undertaken in order to identify the risk types that those product types would be exposed to. A comparison is again made with the risk types that are captured in the VaR and RNIV frameworks. This process identifies risks that are not yet captured in the VaR model or the RNIV framework. A plan for including these risks in one or the other framework can then be devised. RNIV is captured in our economic risk capital framework.

VaR backtesting

Backtesting is one of the techniques used to assess the accuracy and performance of the VaR model used by the Group for risk management and regulatory capital purposes and serves to highlight areas of potential enhancements. Backtesting is used by regulators to assess the adequacy of regulatory capital held by the Group, calculated using VaR.

Backtesting involves comparing the results produced by the VaR model with the hypothetical trading revenues on the trading book. Hypothetical trading revenues are defined in compliance with regulatory requirements and aligned with the VaR model output by excluding (i) non-market elements (such as fees, commissions, cancellations and terminations, net cost of funding and credit-related valuation adjustments) and (ii) gains and losses from intraday trading. A backtesting exception occurs when a hypothetical trading loss exceeds the daily VaR estimate.

For capital purposes and in line with BIS requirements, FINMA increases the capital multiplier for every regulatory VaR backtesting exception above four in the prior rolling 12-month period, resulting in an incremental market risk capital requirement for the Group. VaR models with less than five backtesting exceptions are considered by regulators to be classified in a defined "green zone". The "green zone" corresponds to backtesting results that do not themselves suggest a problem with the quality or accuracy of a bank's model.

VaR governance

Like other models, our VaR model is subject to internal governance including validation by a team of modeling experts independent from the model developers. Validation includes identifying and testing the model's assumptions and limitations, investigating its performance through historical and potential future stress events, and testing that the live implementation of the model behaves as intended. We employ a range of different control processes to help ensure that the models used for market risk remain appropriate over time. As part of these control processes, a dedicated Market Risk Quantitative Steering Committee meets regularly to review model performance and approve any new or amended models.

Sensitivity analysis

Market risks associated with our banking book positions are measured, monitored and limited using several tools, including economic risk capital, scenario analysis, sensitivity analysis and VaR. For the purpose of this disclosure, the aggregated market risks associated with our banking book positions are measured using sensitivity analysis. Sensitivity analysis is a technique used to determine how different values of an independent variable will impact a particular dependent variable under a given set of assumptions. The sensitivity analysis for the banking book positions measures the potential change in economic value resulting from specified hypothetical shocks to market factors (e.g., interest rates). It is not a measure of the potential impact on reported earnings in the current period, since the banking book positions generally are not marked to market through the income statement.

Credit and debit valuation adjustments

Credit valuation adjustments are modifications to the measurement of derivative assets used to reflect the credit risk of counterparties. Debit valuation adjustments are modifications to the measurement of derivative liabilities used to reflect an entity's own credit risk. VaR excludes the impact of changes in both counterparty and our own credit spreads on derivative products.

Credit risk

Definition

Credit risk is the risk of financial loss arising as a result of a borrower or counterparty failing to meet its financial obligations or as a result of deterioration in the credit quality of the borrower or counterparty. In the event of a default, a bank generally incurs a loss equal to the amount owed by the debtor, less any recoveries from foreclosure, liquidation of collateral, the restructuring of the debtor company or other recovery proceeds from the debtor. A change in the credit quality of a counterparty has an impact on the valuation of assets measured at fair value, with valuation changes recorded in the consolidated statements of operations.

Sources of credit risk

Credit risk arises from the execution of our business strategy in the divisions and reflects exposures directly held in the form of lending products (including loans and credit guarantees) or derivatives, shorter-term exposures such as underwriting commitments, and settlement risk related to the exchange of cash or securities outside of typical delivery versus payment structures. For the divisions, the main sources of credit risk are presented in the table "Sources of credit risk by division".

Evaluation and management of credit risk

We use a credit risk management framework which provides for the consistent evaluation, measurement, and management of credit risk across the Group. Assessment of credit risk exposures for internal risk estimates and risk-weighted assets are calculated based on PD, LGD and EAD models approved by our main regulators. The credit risk framework incorporates the following core elements:

- counterparty and transaction assessments: application of internal credit ratings (PD), assignment of LGD and EAD values in relation to counterparties and transactions;
- credit limits: establishment of credit limits, subject to approval by delegated authority holders, to serve as primary risk controls on exposures and to prevent undue risk concentrations;

Sources of credit risk by division

Division	Main sources of credit risk
Swiss Universal Bank	Lending against real estate and financial collateral as well as commercial lending and consumer finance
International Wealth Management	Lending against real assets (e.g., real estate, ships, aircraft) and financial collateral
Asia Pacific	Lending to corporate clients and lending to private clients against real estate and financial collateral
Global Markets	Corporate lending, derivatives and securities financing activities with institutional clients and counterparties, and asset finance
Investment Banking & Capital Markets	Loan underwriting commitments and corporate lending
Strategic Resolution Unit [1]	Legacy lending and derivatives exposures
Corporate Center	Money market exposures through balance sheet management

1 Beginning in 2019, the Strategic Resolution Unit has ceased to exist as a separate division of the Group. The residual portfolio remaining as of December 31, 2018 is now managed in an Asset Resolution Unit and will be separately disclosed within the Corporate Center.

- risk mitigation: active management of risk mitigation provided in relation to credit exposures, including through the use of cash sales, participations, collateral or guarantees or hedging instruments; and
- credit monitoring, impairments and provisions: processes to support the ongoing monitoring and management of credit exposures, supporting the early identification of deterioration and any subsequent impact.

Counterparty and transaction assessments

We evaluate and assess counterparties and clients to whom we have credit exposures, primarily using internal rating models that have been approved by our main regulators. We use these models to determine internal credit ratings which are intended to reflect the PD of each counterparty. For a majority of counterparties and clients, internal ratings are based on internally developed statistical models which are backtested against internal experience, validated by a function independent of model development, and approved by our main regulators for application in the regulatory capital calculation under the A-IRB approach of the Basel framework. Findings from backtesting serve as a key input for any future rating model developments.

Internal statistical rating models are based on a combination of quantitative factors (e.g., financial fundamentals and market data) and qualitative factors (e.g., credit history and economic trends).

For the remaining counterparties where statistical rating models are not used, internal credit ratings are assigned on the basis of a structured expert approach using a variety of inputs such as peer analyses, industry comparisons, external ratings and research as well as the judgment of expert credit officers.

In addition to counterparty ratings, credit risk management also assesses the risk profile of individual transactions and assigns transaction ratings which reflect specific contractual terms such as seniority, security and collateral.

Internal credit ratings may differ from external credit ratings, where available, and are subject to periodic review. Our internal ratings are mapped to a PD band associated with each rating which is calibrated to historical default experience using internal data and external data sources. Our internal masterscale for credit ratings is shown in the table "Credit Suisse counterparty ratings".

LGD estimates the size of loss that may arise on a credit exposure in the event of a default. We assign LGD on credit exposures based on the structure of the transaction and credit mitigation such as collateral or guarantees. The LGD values are calibrated to reflect a downturn macroeconomic environment and include recovery costs.

EAD represents the expected amount of credit exposure in the event of a default and reflects the current drawn exposure and an expectation regarding the future evolution of the credit exposure. For loan exposures, a credit conversion factor is applied to project the additional drawn amount between current utilization and the approved facility amount. The credit exposure related to traded products such as derivatives is based on a simulation using statistical models.

We use internal rating methodologies consistently for the purposes of approval, establishment and monitoring of credit limits and credit portfolio management, credit policy, management reporting, risk-adjusted performance measurement, economic risk capital measurement and allocation and financial accounting.

Credit limits

Our credit exposures are managed at the counterparty and ultimate parent level in accordance with credit limits which apply in relation to current and potential future exposures. Credit limits to counterparties and groups of connected companies are subject to formal approval under delegated authority within the divisions where the credit exposures are generated, and where significant in terms of size or risk profile, are subject to further escalation to the Group chief credit officer or Group CRO.

Credit Suisse counterparty ratings

Ratings	PD bands (%)	Definition	S&P	Fitch	Moody's	Details
AAA	0.000–0.021	Substantially risk free	AAA	AAA	Aaa	Extremely low risk, very high long-term stability, still solvent under extreme conditions
AA+ AA AA-	0.021–0.027 0.027–0.034 0.034–0.044	Minimal risk	AA+ AA AA-	AA+ AA AA-	Aa1 Aa2 Aa3	Very low risk, long-term stability, repayment sources sufficient under lasting adverse conditions, extremely high medium-term stability
A+ A A-	0.044–0.056 0.056–0.068 0.068–0.097	Modest risk	A+ A A-	A+ A A-	A1 A2 A3	Low risk, short- and medium-term stability, small adverse developments can be absorbed long term, short- and medium-term solvency preserved in the event of serious difficulties
BBB+ BBB BBB-	0.097–0.167 0.167–0.285 0.285–0.487	Average risk	BBB+ BBB BBB-	BBB+ BBB BBB-	Baa1 Baa2 Baa3	Medium to low risk, high short-term stability, adequate substance for medium-term survival, very stable short term
BB+ BB BB-	0.487–0.839 0.839–1.442 1.442–2.478	Acceptable risk	BB+ BB BB-	BB+ BB BB-	Ba1 Ba2 Ba3	Medium risk, only short-term stability, only capable of absorbing minor adverse developments in the medium term, stable in the short term, no increased credit risks expected within the year
B+ B B-	2.478–4.259 4.259–7.311 7.311–12.550	High risk	B+ B B-	B+ B B-	B1 B2 B3	Increasing risk, limited capability to absorb further unexpected negative developments
CCC+ CCC CCC- CC	12.550–21.543 21.543–100.00 21.543–100.00 21.543–100.00	Very high risk	CCC+ CCC CCC- CC	CCC+ CCC CCC- CC	Caa1 Caa2 Caa3 Ca	High risk, very limited capability to absorb further unexpected negative developments
C D1 D2	100 Risk of default has materialized	Imminent or actual loss	C D	C D	C	Substantial credit risk has materialized, i.e., counterparty is distressed and/or non-performing. Adequate specific provisions must be made as further adverse developments will result directly in credit losses.

Transactions rated C are potential problem loans; those rated D1 are non-performing assets and those rated D2 are non-interest earning.

In addition to counterparty and ultimate parent exposures, credit limits and tolerances are also applied at the portfolio level to monitor and manage risk concentrations such as to specific industries, countries or products. In addition, credit risk concentration is regularly supervised by credit and risk management committees.

Risk mitigation

We actively manage our credit exposure by taking financial and non-financial collateral supported by enforceable legal documentation, as well as by utilizing credit hedging techniques. Financial collateral in the form of cash, marketable securities (e.g., equities, bonds or funds) and guarantees serves to mitigate the inherent risk of credit loss and to improve recoveries in the event of a default. Financial collateral is subject to controls on eligibility and is supported by frequent market valuation depending on the asset class to ensure exposures remain adequately collateralized. Depending on the quality of the collateral, appropriate haircuts are applied for risk management purposes.

Non-financial collateral such as residential and commercial real estate, tangible assets (e.g., ships or aircraft), inventories and commodities are valued at the time of credit approval and periodically thereafter depending on the type of credit exposure and collateral coverage ratio.

In addition to collateral, we also utilize credit hedging in the form of protection provided by single-name and index credit default swaps as well as structured hedging and insurance products. Credit hedging is used to mitigate risks arising from the loan portfolio, loan underwriting exposures and counterparty credit risk. Hedging is intended to reduce the risk of loss from a specific counterparty default or broader downturn in markets that impact the overall credit risk portfolio. Credit hedging contracts are typically bilateral or centrally cleared derivative transactions and are subject to collateralized trading arrangements. We evaluate hedging risk mitigation to ensure that basis or tenor risk is appropriately identified and managed.

In addition to collateral and hedging strategies, we also actively manage our loan portfolio and may sell or sub-participate positions in the loan portfolio as a further form of risk mitigation.

Credit monitoring, impairments and provisions

A rigorous credit quality monitoring process provides an early identification of possible changes in the creditworthiness of clients and includes regular asset and collateral quality reviews, business and financial statement analysis, and relevant economic and industry studies. Regularly updated watch lists and review meetings are used for the identification of counterparties that could be subject to adverse changes in creditworthiness.

In the event of a default, credit exposures are transferred to recovery management functions within credit risk management and are subject to formal reporting to the quarterly recovery review committee. Changes in the exposure profile and expectations for recovery form the basis to determine the allowance for credit losses which are discussed with the Group chief credit officer. Any decision to make full or partial write-offs require the approval of the Group chief credit officer.

The review of the credit quality of clients and counterparties does not depend on the accounting treatment of the asset or commitment. Our credit portfolio & provisions review committee regularly reviews the appropriateness of allowances for credit losses.

Changes in the credit quality of loans held at fair value are reflected in valuation changes recorded directly in revenues, and therefore are not part of the impaired loans balance which only includes loans valued on an amortized cost basis. Impaired transactions are further classified as potential problem exposure, non-performing exposure, non-interest-earning exposure or restructured exposure, and the exposures are generally managed within credit recovery units.

We maintain specific valuation allowances on loans valued at amortized cost, which we consider a reasonable estimate of losses identified in the existing credit portfolio. We provide for loan losses based on a regular and detailed analysis of all counterparties, taking collateral value into consideration, where applicable. If uncertainty exists as to the repayment of either principal or interest, a specific valuation allowance is either created or adjusted accordingly. The specific allowance for loan losses is revalued by Group credit risk management at least annually or more frequently depending on the risk profile of the borrower or credit-relevant events.

An inherent loss allowance is estimated for all loans not specifically identified as impaired and that, on a portfolio basis, are considered to contain inherent losses. The method for determining the inherent loss in the lending portfolios of Global Markets and Investment Banking & Capital Markets is based on a market-implied model using long-term industry-wide historical default and recovery data taking into account the credit rating and industry of each counterparty. A separate component of the calculation reflects the current market conditions in the allowance for loan losses. Depending on the nature of the exposures, this method may also be applied for the lending portfolios in Swiss Universal Bank, International Wealth Management, Asia Pacific and the Strategic Resolution Unit. For all other exposures, inherent losses in the lending portfolios of these divisions are determined based on current internal risk ratings, collateral and exposure structure, applying historical default and loss experience in the ratings and loss parameters. Qualitative adjustments to reflect current market conditions or any other factors not captured by the model are approved by management and reflected in the allowance for loan losses. A provision for inherent losses on off-balance sheet lending-related exposure, such as contingent liabilities and irrevocable commitments, is also determined, using a methodology similar to that used for the loan portfolio.

Credit risk governance

Credit risk is managed and controlled by Group credit risk management, an independent function within the risk management area and governed by a comprehensive framework of policies and procedures. Key processes are reviewed through supervisory checks on a regular basis by credit risk management, including the Group chief credit officer.

The Group chief credit officer has established an executive governance and change committee to support overall management and oversight of the credit risk management function. The committee is comprised of senior personnel of key functions within credit risk management and divisional chief credit officers. The governance framework is based on a committee structure covering key areas of the credit risk framework including the credit risk appetite committee, credit risk policy committee, credit risk controls committee and various project and change related governance committees. The governance framework ensures appropriate oversight of the global credit risk management function and the maintenance of required global standards for the management of the Group's credit exposure.

Credit risk review

Governance and supervisory checks within credit risk management are supplemented by the credit risk review function. The credit risk review function is independent from credit risk management with a direct functional reporting line to the Risk Committee Chair, administratively reporting to the Group CRO. Credit risk review's primary responsibility is to provide timely and independent assessments of the Group's credit exposures and credit risk management processes and practices. Any findings and agreed actions are reported to senior management and, as necessary, to the Risk Committee.

Model risk

Like most other financial firms, we rely on advanced quantitative models across all business lines and legal entities to support a broad range of applications, including estimating various forms of financial risk, valuation of securities, stress testing, assessing capital adequacy, providing wealth management services to clients and to meet various reporting requirements.

Definition and sources of model risk

Model risk is the risk of adverse consequences from decisions made based on model results that may be incorrect, misinterpreted or used inappropriately. All quantitative models are imperfect approximations that are subject to varying degrees of uncertainty in their output depending on, among other factors, the model's complexity and its intended application. As a result, modeling errors are unavoidable and can result in inappropriate business decisions, financial loss, regulatory and reputational risk and incorrect or inadequate capital reporting. Model errors, intrinsic uncertainty and inappropriate use are the primary contributors to aggregate, Group-wide model risk.

Evaluation and management of model risk

Through our global model risk management and governance framework we seek to identify, measure and mitigate all significant risks arising from the use of models embedded within our global model ecosystem. Model risks can then be mitigated through a well-designed and robust model risk management framework, encompassing both model governance policies and procedures in combination with model validation best practices.

Robust model risk management is crucial to ensuring that the Group's model risk is assessed and managed in order to remain within a defined model risk appetite by focusing on identification, measurement and resolution of model limitations. Under the Group's model governance policies, the model risk management function validates and approves all new models and material changes to existing models before their implementation, in compliance with standards established by regulators. Developers, owners and model supervisors are responsible for identifying, developing, implementing and testing their models. Model supervisors are responsible for ensuring that models are submitted to model risk management for validation and approval and entered into the Group's model inventory. The model risk management function is structured to be independent from model users, developers and supervisors.

A rigorous validation practice should ensure that models are conceptually sound, correctly implemented by the model owners and developers and functioning as intended. To accomplish this, model risk management deploys a team of objective, well-informed subject matter experts (the model validators) who have the necessary skills and knowledge to pose effective challenge to all classes of models as a guiding principle for mitigating model risk.

Under the Group model governance policies, all models are risk-tiered according to an internal scoring method that combines complexity and materiality to assign models into one of four risk tiers. These rating tiers are used to prioritize models and allocate resources for initial validations, annual reviews and ongoing monitoring.

Governance
Governance is an important part of model risk management. Various model review committees within model risk management prepare aggregate model risk reports that serve to identify concentrations of model risk and to make recommendations for remediation. These reports are submitted regularly to a dedicated model risk governance committee which escalates issues as necessary to the Group's Model Risk Steering Committee and the Board's Risk Committee.

Model risk management reviews models annually, reports model limitations to key stakeholders, tracks remediation plans for validation findings and reports on model risk tolerance and metrics to senior management. Model risk management oversees controls to support a complete and accurate Group-wide model inventory and performs annual attestations affirming the completeness and accuracy of its model inventory.

Operational and compliance risk

The Group is required to have an adequate and effective risk and control framework in place to manage operational and compliance risks. Building on established, independent operational and compliance risk frameworks, the ERCF further integrates these frameworks and harmonizes the related processes in the Group recognizing the commonality and prevalence of operational and compliance risk in the non-financial risk domain. The ERCF establishes a consistent, unified approach to non-financial risk and control identification and assessment and sets common minimum standards across the Group for each key component with regard to processes and the policy framework.

Operational risk
Operational risk is the risk of financial loss arising from inadequate or failed internal processes, people or systems, or from external events. Operational risk does not include strategic and reputational risks. However, some operational risks can lead to reputational issues and as such operational and reputational risks may be closely linked.

Operational risk is inherent in most aspects of our business, including the systems and processes that support our activities. It comprises a large number of disparate risks that can manifest in a variety of ways. Examples of operational risk include the risk of damage to physical assets, business disruption, failures relating to third-party processes, data integrity and trade processing, cyber attacks and fraudulent or unauthorized transactions. Operational risk can arise from human error, inappropriate conduct, failures in systems, processes and controls, deliberate attack or natural and man-made disasters.

In addition to managing and mitigating operational risks under the ERCF through business- and risk-related processes and organization as described below under "The enterprise risk and control framework", we also transfer the risk of potential loss from certain operational risks to third-party insurance companies in certain instances.

Compliance and regulatory risk
Compliance and regulatory risk is the risk from the failure to comply with laws, regulations, rules or market standards that may have a negative effect on our franchise and clients we serve. It includes the risk that changes in laws, regulations, rules or market standards may limit our activities and have a negative effect on our business or our ability to implement strategic initiatives, or can result in an increase in operating costs for the business or make our products and services more expensive for clients. Examples of sources of compliance risks include cross-border activities, the risk of money laundering, improper handling of confidential information, conflicts of interest, improper gifts and entertainment and failure in duties to clients.

The enterprise risk and control framework
To effectively manage operational and compliance risks, the Group-wide ERCF was introduced in 2016 focusing on the early identification, recording, assessment, monitoring, prevention and mitigation of these risks, as well as timely and meaningful management reporting. Over the past three years, we have further improved the integration of previously separate operational risk processes, providing a more coherent and systematic approach to managing all aspects of the operational risk landscape. Under the ERCF, we integrated the operational risk framework and all of

its components with the compliance risk components to further harmonize our approach to non-financial risk. The assessment processes for operational and compliance risks are closely coordinated, resulting in an enhanced risk and control self-assessment (RCSA) that covers both risk types in a more consistent manner. Also, standardized Group-wide role descriptions define the responsibilities for identifying, assessing, reporting and managing risks across the organization. In 2018, continued progress was made in rolling out a systematic key control activities framework as part of the ERCF. This framework applies consistent standards and approaches to the identification, documentation and assessment of key controls across the Group.

The ERCF provides a structured approach to managing operational and compliance risks. It seeks to apply consistent standards and techniques for evaluating risks across the Group while providing individual businesses with sufficient flexibility to tailor specific components to their own needs, as long as they meet Group-wide minimum standards. The main components of the ERCF are described below:

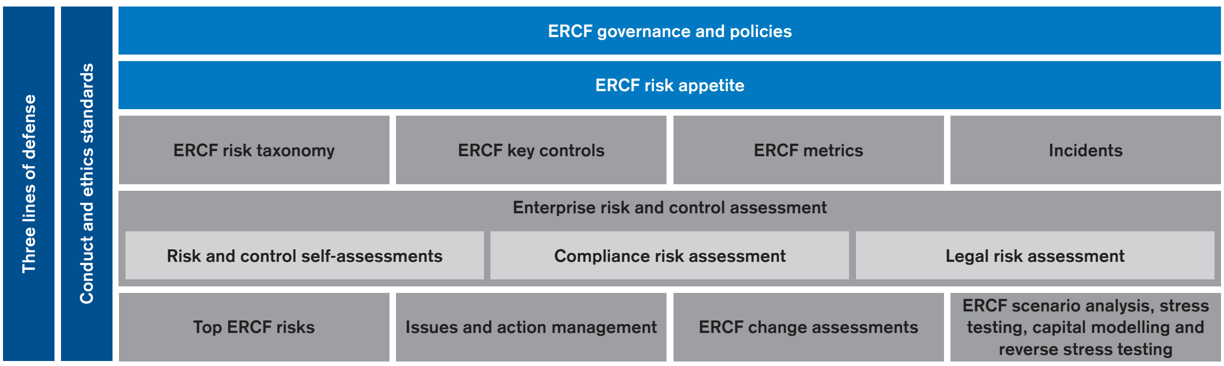
Governance and policies are fundamental to the ERCF. Effective governance processes establish clear roles and responsibilities for managing operational and compliance risk and define appropriate escalation processes for outcomes that are outside expected levels. We utilize a comprehensive set of policies and procedures that set out how employees are expected to conduct their activities.

- Each business area takes responsibility for its operational and compliance risks and the provision of adequate resources and procedures for the management of those risks. Businesses are supported by designated second line of defense operational risk and compliance teams that are responsible for independent risk oversight, methodologies, tools and reporting within their areas as well as working with management on any operational and compliance risk issues that arise. Businesses and relevant control functions meet regularly to discuss operational and compliance risk issues and identify required actions to mitigate risks.
- The operational risk management and compliance functions are jointly responsible for setting minimum standards with policies and procedures for operational and compliance risks. This includes ensuring the cohesiveness of policies, tools and practices throughout the Group particularly with regard to the identification, evaluation, mitigation, monitoring and reporting of these risks.
- Operational and compliance risk exposures, metrics, issues and remediation efforts are discussed at quarterly CARMC meetings of the internal control system cycle and at divisional operational risk and compliance management committee meetings, which have senior representatives from all relevant functions.

ERCF risk appetite determines our approach to risk-taking and articulates the motivations for taking, accepting or avoiding certain types of risks or exposures. Senior management expresses their operational and compliance risk appetite in terms of quantitative tolerance levels that apply to operational risk incidents (which may also arise due to compliance issues) and qualitative statements covering outcomes that should be avoided. Senior management also defines market area and client risk appetites. In 2018, we further enhanced our conduct risk appetite. The risk appetites are defined with the relevant risk management committees in agreement with the operational risk management and compliance functions.

ERCF risk taxonomy represents a unified and standardized catalogue of inherent non-financial risk definitions across operational and compliance risk. It provides a consistent approach to the identification and classification of these risks across the Group.

Enterprise risk and control framework (ERCF)



ERCF key controls are documented and assessed under a common controls assessment framework, ensuring that key controls are identified, documented, executed and assessed consistently and comprehensively, with a focus on the Group's most significant risks and associated key controls. We utilize a comprehensive set of internal controls that are designed to ensure that our activities follow agreed policies and that processes operate as intended. Key controls are subject to independent testing to evaluate their effectiveness. The results of these tests are considered by other ERCF components, such as in the RCSA process.

ERCF metrics are risk and control indicators that are used to monitor identified operational risks, compliance risks and controls over time. A key risk indicator is defined as a metric used to provide early warning of increasing risk exposure and can be backward and forward looking in nature. A key control indicator is defined as a metric that assesses and monitors the effectiveness of one or several controls. Minimum standards apply to the identification, selection, risk mapping approval, monitoring and escalation of metrics that are linked to ERCF risk appetite and top ERCF risks which are reported to the CARMC internal controls system cycle and divisional, functional or legal entity risk management committees. Key risk and control indicators may also be used as inputs into scenario analysis and capital allocation.

Incidents describes the process in which we systematically collect, analyze and report data on operational and compliance risk incidents to ensure that we understand the reasons why they occurred and how controls can be improved to reduce the risk of future incidents. We focus both on incidents that result in economic losses and on events that provide information on potential control gaps, even if no losses occurred. We also collect and utilize available data on incidents at relevant peer firms to identify potential risks that may be relevant in the future, even if they have not impacted the Group. Incident data is also a key input for our operational risk capital models and other analytics.

Enterprise risk and control assessment consolidates the assessment, review and challenge activities for operational, compliance and legal risks across all divisions and functions into a single framework and consists of the elements RCSA, compliance risk assessment and any associated legal risk assessment:

- **Risk and control self-assessments** are comprehensive, bottom-up assessments of the key operational and compliance risks in each business and control function. The process of preparing RCSAs comprises a self-assessment of the relevant business line or functional risk profile based on the Group-wide ERCF risk taxonomy classifying risks under a standardized approach. It covers an assessment of the inherent risks of each business and control function, provides an evaluation of the effectiveness of the controls in place to mitigate these risks, determines the residual risk ratings and requires a decision to either accept or remediate any residual risks. In the case of remediation, mitigating actions are defined and approved by management. While these are self-assessments, they are subject to independent review and challenge by relevant risk management functions to ensure that they have been conducted appropriately. RCSAs utilize other components of the ERCF, such as ERCF metrics and incidents, and they generate outputs that are used to manage and monitor risks.
- **Compliance risk assessment** is the Group's formal, proactive dynamic process which provides the framework for the independent second line compliance function to formally assess the overall compliance and regulatory risks associated with a particular business unit or business activity. The results are used to identify potential or actual areas of risk in the business which also assists compliance management in planning the compliance objectives to mitigate risks identified. This risk assessment consists of an analysis of the inherent risk and control effectiveness aligned to the compliance risk categories and is performed at the level of a risk unit. Quantitative metrics are leveraged wherever possible, supplementing the qualitative assessments. Upon completion of the assessment, overall risk unit ratings are established through a compliance divisional and Group-wide review and mitigating actions are identified as appropriate. The results of the compliance risk assessment are presented to the Board and the Group's Audit Committee.
- **Legal risk assessment** is a sub-assessment of the Group's RCSA with the objective to conduct an enhanced assessment of legal risks across the Group. The legal risk assessment is based on the principles defined for the RCSA program. The General Counsel function reviews the results of the legal risk assessments performed by business units across the Group. The legal risk assessment complements the RCSA process in providing an independent review and challenge process by the second line of defense.

Top ERCF risks are identified at the Group, divisional and corporate function levels and represent the most significant risks requiring senior management attention. They are generated through a combination of top-down assessment by senior management and a bottom-up process collating the main themes arising from the RCSA and compliance risk assessment processes. Where appropriate, remediation plans are put in place with ownership by senior management.

Issues and action management encompasses a structured approach to responding to operational and compliance risk incidents and breaches of ERCF quantitative and qualitative risk appetite or metrics, as well as continuous monitoring of remediation actions against identified control issues. It is applicable to business divisions and corporate functions globally. Further, the compliance and regulatory responses function consolidates and monitors Group-wide issues and actions including audit, regulatory, self-identified and second line identified issues and actions. The operational risk incident management component includes a defined process for identifying, categorizing, investigating, escalating and remediating incidents. These reviews seek to assess the causes of control weaknesses, establish appropriate remediation actions and ascertain whether events have implications for other businesses or could have a potential impact in the future. They can result in recommendations to impose restrictions on businesses while operational risk management processes and controls are improved. The breach component provides a methodology for evaluating breaches of quantitative and qualitative ERCF risk appetite statements. Its goal is to provide senior management with the information needed to make decisions on how to best remediate issues that fall outside agreed risk appetite levels.

Where appropriate, major strategic change programs may also undergo independent **ERCF change assessments** by the operational risk function, leveraging the ERCF assessment framework to determine the potential impact of the change activity on the overall operational risk profile of the impacted area both during and after implementation.

ERCF scenario analysis is focused on operational and compliance risks and is used to identify and measure exposure to a range of adverse events, such as unauthorized trading, transaction processing errors and compliance issues. These scenarios help businesses assess the suitability of controls in light of potential losses, and they are also an input to the internal models used by the Group to calculate stressed loss projections as well as economic and regulatory capital. More specifically, the **ERCF stress testing** is a sub-component of the Group-wide stress testing framework and it focuses on the evaluation of potential operational risk impacts of macro-economic scenarios on net income and regulatory capital across a number of operational risk categories. The macro-economic scenarios are provided as part of regulatory processes, such as CCAR and loss potential analysis, or internal processes, such as financial planning and risk appetite setting. **Capital modelling** is based on an advanced measurement approach (AMA) and utilizes both historical data as well as scenario analysis to estimate capital requirements for the Group, as further described below. Finally, **ERCF reverse stress testing** is an additional complementary tool that introduces a more forward-looking element into the RCSA process. It assumes that a business has suffered an adverse outcome, such as a large operational risk loss, and requires consideration of the events that could have led to the result. As such, it allows for the consideration of risks beyond normal business expectations and it challenges common assumptions about the risk profile, the emergence of new risks or interactions between existing risks, as well as the performance of expected control and mitigation strategies.

Operational risk regulatory capital measurement

We have used an internal model to calculate the regulatory capital requirement for operational risk under the AMA approach since 2008. This model was replaced with an enhanced AMA internal model in 2014, which has been approved by FINMA.

The model is based on a loss distribution approach that uses historical data on internal and relevant external losses of peers to generate frequency and severity distributions for a range of potential operational risk loss scenarios, such as an unauthorized trading incident or a material business disruption. Business experts and senior management review, and may adjust, the parameters of these scenarios to take account of business environment and internal control factors, such as RCSA results and risk and control indicators, to provide a forward-looking assessment of each scenario. Insurance mitigation is included in the regulatory capital requirement for operational risk where appropriate, by considering the level of insurance coverage for each scenario and incorporating haircuts as appropriate. The internal model then uses the adjusted parameters to generate an overall loss distribution for the Group over a one-year time horizon. The AMA capital requirement represents the 99.9th percentile of this overall loss distribution. We use a risk-sensitive approach to allocating the AMA capital requirement to businesses that is designed to be forward-looking and incentivize appropriate risk management behaviors.

In 2018, we updated the treatment of historic losses relating to divested businesses in the model, particularly those relating to the private banking business in the US that we exited. In addition, we increased the coverage provided by our operational risk insurance policy. These changes resulted in a decrease of our operational risk capital requirements.

Conduct risk

The Group considers conduct risk to be the risk that improper behavior or judgment by our employees may result in a negative financial, non-financial or reputational impact to our clients, employees or the Group, or negatively impact the integrity of the financial markets. Conduct risk may arise from a wide variety of activities and types of behaviors. A Group-wide definition of conduct risk supports the efforts of our employees to have a common understanding of and consistently manage, minimize and mitigate our conduct risk. Further, it promotes standards of responsible conduct and ethics in our employees. Managing conduct risk includes consideration of the risks generated by each business and the strength of the associated mitigating controls. Conduct risk is also assessed by reviewing and learning from past incidents within the Group and at other firms in the financial services sector. Compliance oversees conduct risk for the Group.

The ongoing focus and investment in a strong risk culture is fundamental to the management of conduct risk. The Group's Code of Conduct provides a clear statement on our conduct expectations and ethical values, supported by our conduct and ethics standards.

→ Refer to "Risk culture" in Risk management oversight and to "Corporate governance framework" in IV – Corporate Governance – Overview for further information on our Code of Conduct.

Technology risk

Technology risk deserves particular attention given the complex technological landscape that covers our business model. Ensuring that confidentiality, integrity and availability of information assets are protected is critical to our operations.

Technology risk is the risk that technology-related failures, such as service outages or information security incidents, may disrupt business. Technology risk is inherent not only in our IT assets, but also in the people and processes that interact with them including through dependency on third-party suppliers and the worldwide telecommunications infrastructure. We seek to ensure that the data used to support key business processes and reporting is secure, complete, accurate, available, timely and meets appropriate quality and integrity standards. We require our critical IT systems to be identified, secure, resilient and available and support our ongoing operations, decision-making, communications and reporting. Our systems must also have the capability, capacity, scalability and adaptability to meet current and future business objectives, the needs of our customers and regulatory and legal expectations. Failure to meet these standards and requirements may result in adverse events that could subject us to reputational damage, fines, litigation, regulatory sanctions, financial losses or loss of market share.

Technology risks are managed through our technology risk management program, business continuity management plan and business contingency and resiliency plans. Technology risks are included as part of our overall enterprise risk and control assessment based upon a forward-looking approach focusing on the most significant risks in terms of potential impact and likelihood.

Cyber risk

Cyber risk, which is part of technology risk, is the risk that we will be compromised as a result of cyber attacks, security breaches, unauthorized access, loss or destruction of data, unavailability of service, computer viruses or other events that could have an adverse security impact. Any such event could subject us to litigation or cause us to suffer a financial loss, a disruption of our businesses, liability to our clients, regulatory intervention or reputational damage. We could also be required to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities or other exposures.

We recognize that cyber risk represents a rapidly evolving external risk landscape. The financial industry continues to face cyber threats from a variety of actors who are driven by monetary, political and other motivations. We actively monitor external incidents and threats and assess and respond accordingly to any potential vulnerabilities that this may reveal. We are also an active participant in industry forums and information exchange initiatives and engage in regulatory consultation on this subject.

We have an enterprise-wide cybersecurity strategy to provide strategic guidance as part of our efforts to achieve an optimized end-to-end security and risk competence that enables a secure and innovative business environment, aligned with the Group's risk appetite. Our technology security team leverages a wide array of leading technology solutions and industry best practices to support our ability to maintain a secure perimeter and detect and respond to threats in real time.

We regularly assess the effectiveness of our key controls and we conduct ongoing employee training and awareness activities, including for key management personnel, in order to embed a strong cyber risk culture. As part of the ERCF, the Executive Board as well as divisional and legal entity risk management committees are given updates on the broader technology risk exposure.

Senior management, including the Board and its Risk Committee, are actively engaged and regularly informed on the extent of the threats and mitigations in place to manage cyber incidents. Related business continuity and response plans are rehearsed regularly at all levels, up to and including the Executive Board. Notable incidents are escalated to the Risk Committee together with lessons learned and mitigation plans.

Legal risk

Legal risk is the risk of loss or imposition of damages, fines, penalties or other liability or any other material adverse impact arising from circumstances including the failure to comply with legal obligations, whether contractual, statutory or otherwise, changes in enforcement practices, the making of a legal challenge or claim against us, our inability to enforce legal rights or the failure to take measures to protect our rights.

Reputational risk

Reputational risk is the risk that negative perception by our stakeholders, including clients, counterparties, employees, shareholders, regulators and the general public, may adversely impact client acquisition and damage our business relationships with clients and counterparties, affecting staff morale and reducing access to funding sources.

Reputational risk may arise from a variety of sources, including, but not limited to, the nature or purpose of a proposed transaction or service, the identity or activity of a potential client, the regulatory or political climate in which the business will be transacted, and the potentially controversial environmental or social impacts of a transaction or significant public attention surrounding the transaction itself. The risk may also arise from reputational damage in the aftermath of an operational risk incident, such as cyber crime or the failure by employees to meet expected conduct and ethical standards.

Reputational risk is included in the Group's risk appetite framework to ensure that risk-taking is aligned with the approved risk appetite. We highly value our reputation and are fully committed to protecting it through a prudent approach to risk-taking and a responsible approach to business. This is achieved through the use of dedicated processes, resources and policies focused on identifying, evaluating, managing and reporting potential reputational risks. This is also achieved by applying the highest standards of personal accountability and ethical conduct as set out in the Group's Code of Conduct and the Group's approach to conduct and ethics. Reputational risk potentially arising from proposed business transactions and client activity is assessed in the reputational risk review process. The Group's global policy on reputational risk requires employees to be conservative when assessing potential reputational impact and, where certain indicators give rise to potential reputational risk, the relevant business proposal or service must be submitted through the reputational risk review process. This involves a submission by an originator (any employee), approval by a business area head or designee, and its subsequent referral to one of the assigned reputational risk approvers, each of whom is an experienced and high-ranking senior manager, independent of the business divisions, who has authority to approve, reject or impose conditions on our participation in the transaction or service.

The RRSC, on a global level, and the reputational risk committees, on a divisional or legal entity level, are the governing bodies responsible for the oversight and active discussion of reputational risk and sustainability issues. At the Board level, the Risk Committee and Audit Committee jointly assist the Board in fulfilling its reputational risk oversight responsibilities by reviewing and approving the Group's risk appetite framework as well as assessing the adequacy of the management of reputational risks.

In order to inform our stakeholders about how we manage some of the environmental and social risks inherent to the banking business, we publish our *Corporate Responsibility Report*, in which we also describe our efforts to conduct our operations in a manner that is environmentally and socially responsible and broadly contributes to society.

→ Refer to "credit-suisse.com/responsibility" for our Corporate Responsibility Report.

Fiduciary risk

Fiduciary risk is the risk of financial loss arising when the Group or its employees, acting in a fiduciary capacity as trustee, investment manager or as mandated by law, do not act in the best interest of the client in connection with the advice and management of our client's assets including from a product-related market, credit, liquidity, counterparty and operational risk perspective.

Assessing investment performance and reviewing forward-looking investment risks in our discretionary client portfolios and investment funds is central to our oversight program. Areas of focus include:

- Measuring investment performance of discretionary client portfolios and investment funds and comparing the returns against benchmarks to understand sources and drivers of the returns.
- Assessing risk measures such as exposure, sensitivities, stress scenarios, expected volatility and liquidity across our portfolios to ensure that we are managing the assets in line with the clients' expectations and risk tolerance.
- Treating clients with a prudent standard of care, which includes information disclosure, subscriptions and redemptions processes, trade execution and requiring the highest ethical conduct.
- Ensuring discretionary portfolio managers' investment approach is in line with client expectations and in accordance with prospectus and guidelines.
- Monitoring client investment guidelines or investment fund limits. In certain cases, internal limits or guidelines are also established and monitored.

Sound governance is essential for all discretionary management activities including trade execution and the investment process. Our program targets daily, monthly or quarterly monitoring of all portfolio management activities with independent analysis provided to senior management. Formal review meetings are in place to ensure that investment performance and risks are in line with expectations and adequately supervised.

Strategic risk

Strategic risk is the risk of financial loss or reputational damage arising from inappropriate strategic decisions, ineffective implementation of business strategies or an inability to adapt business strategies in response to changes in the business environment. Strategic risk may arise from a variety of sources, including:

- an inadequate or inaccurate understanding of our existing capabilities and competitive positioning;
- an inadequate or inaccurate analysis of current and prospective operating conditions in our markets, including the macroeconomic environment, client and competitor behaviors and actions, regulatory developments and technological impacts;
- inappropriate strategic decisions, such as those pertaining to which activities we will undertake, which markets and client segments we will serve, which organizational structure we will adopt and how we will position ourselves relative to competitors;
- ineffective implementation and execution of chosen business strategies and related organizational changes;
- the inability to properly identify and analyze key changes in our operating environment, and to adapt strategies accordingly; and
- the inability to properly monitor progress against strategic objectives.

A wide variety of financial, risk, client and market analyses are used to monitor the effectiveness of our strategies and the performance of our businesses against their strategic objectives. These include an analysis of current and expected operating conditions, an analysis of current and target market positioning, and detailed scenario planning.

Strategic plans are developed by each division annually and aggregated into a Group plan, which is reviewed by the Group CRO, CFO and CEO before presentation to the full Executive Board. Following approval by the Executive Board, the Group plan is submitted for review and approval to the Board. In addition, there is an annual strategic review at which the Board evaluates the Group's performance against strategic objectives and sets the overall strategic direction for the Group. From time to time, the Board and the Executive Board conduct more fundamental in-depth reviews of the Group's strategy.

→ Refer to "Strategy" in I – Information on the company for further information.

To complement the annual cycle, each division presents a more detailed individual analysis to review key dimensions of its strategy at various points during the year. Additionally, the CEO, the Executive Board and individual business heads regularly assess the performance of each business against strategic objectives through a series of strategic business reviews conducted throughout the year. The reviews include assessments of business strategy, overall operating environment, including our competitive position, financial performance and key business risks.

Climate-related risks

Following the publication of recommendations from the FSB's Task Force on Climate-related Financial Disclosures (TCFD) in June 2017, climate risk is emerging as an important area of focus for the economy. The final TCFD report establishes a high-level framework for considering climate-related risks and opportunities in a firm's strategy and is applicable to listed corporations across all sectors globally.

In response to the TCFD recommendations, we have established a climate change program with the overall goal of addressing recommendations related to external disclosures of climate-linked risks and opportunities. The program team has worked to formalize climate-related governance and definitions in our key policies and to define the principles for climate risk strategy and management. The TCFD presented its recommendations in the four categories of governance, strategy, risk management and metrics and targets. We are in the process of assessing and implementing certain measures to address these recommendations, as summarized below.

Governance

We have updated the Risk Committee charter to include specific responsibility for climate risk management. The market & credit risk cycle of CARMC is now mandated to ensure that the capabilities for the management of relevant long-term risk trends, including climate change, are put in place. The RRSC has assumed responsibility for overall climate change strategy and policy. We have also updated key policies, including the reputational risk policy and the sustainability management policy, to incorporate important elements of climate risk management.

Strategy

We have identified several key risks and opportunities, originating from either the physical or the transition effects of climate change. Physical risks can arise from climate and weather-related events (e.g., heatwaves, droughts, floods, storms and sea-level rise) and can potentially result in material financial losses, impairing asset values and the creditworthiness of borrowers. Transition risks can arise from the process of adjustment towards a low-carbon economy through changes in climate policy, technological developments and disruptive business models, and shifting investor and consumer sentiment. Physical and transition climate risks can affect us as an organization either directly, through our physical assets, costs and operations, or indirectly, through our financial relationships with our clients. We ultimately aim to leverage existing risk management processes and capabilities for the management of climate risk exposures, potentially including financial planning and strategy setting, by mapping the underlying climate risks to our existing risk types.

In line with the TCFD recommendations, we have developed a 2°C and a 4°C scenario as part of our plan to assess the resilience of our strategy towards climate change. We are pursuing a range of pilot studies to investigate the impact of these scenarios on our business.

We are engaged in a range of activities which may support the transition to a lower carbon and more climate-resilient economy. Our green finance solutions are designed to achieve a positive impact on the environment while also creating financial value for our clients, drawing upon the expertise of various specialist departments across our divisions.

In 2018, Credit Suisse supported clients in raising over USD 6 billion of green bonds globally. Since 2013 we have supported the issuance of USD 15 billion of green bonds for our clients. We are also active in the sustainability lending market and during 2018 we participated in a total of over USD 14 billion worth of sustainability-linked loans from a range of European borrowers. Credit Suisse actively supports clean and renewable energy businesses and, until the end of 2018, had been involved in over 110 transactions in this field with a value of more than USD 94 billion since 2010. We offer a number of funds focused on sustainability, green bond investments and sustainable real estate as well as products and services in conservation finance, for example our CS Real Estate Green Property Fund and CS Green Bond Fund. We also participate in sustainable finance through our Impact Advisory and Finance department.

Risk management

Historically we have considered climate change-related impacts mainly in connection with our management of reputational and operational risks. Risk management of climate change exposure from our financial relationships presents a challenge owing to the long-term nature of the climate impacts versus the relatively shorter-term nature of banking portfolios. The climate risk identification process relies on our existing risk identification and assessment process, but also leverages a newly established climate risk and opportunities inventory. Climate risk is now embedded in our firm-wide risk taxonomy, and we expect to continue to develop the climate inventory as industry best practice and consensus on climate risks and opportunities evolve.

Metrics and targets

We measure our balance sheet assets and credit risk-weighted assets across the following fossil fuel industry sectors: oil and gas, power generation and coal mining. In addition, we are developing a set of internal metrics to assess our climate risk-related financial exposures, and we are managing and disclosing greenhouse gas emissions from our own operations on the basis of an ISO 14001-certified environmental management system.

→ Refer to "credit-suisse.com/responsibility" for our Corporate Responsibility Report.

Risk review and results

Economic risk capital review

Methodology and model developments

We regularly review and update our economic risk capital methodology in order to ensure that the model remains relevant as markets and business strategies evolve. In the event of material methodology changes and dataset and model parameter updates, prior-period balances are restated in order to show meaningful trends.

→ Refer to "Economic risk capital" in Risk coverage and management for further information on the 2018 economic risk capital methodology changes.

The net impact of the methodology changes and updates implemented in the first quarter of 2018, including the revised economic risk capital methodology implemented with effect from January 1, 2018, on economic risk capital for the Group as of December 31, 2017 was a decrease of CHF 1.5 billion, or 4.4%.

The net impact of the methodology changes and updates implemented in the fourth quarter of 2018 on economic risk capital for the Group as of December 31, 2017 was a decrease of CHF 2.5 billion, or 7.6%.

The combined net impact of all methodology changes and updates implemented in the first and fourth quarter of 2018 on economic risk capital for the Group as of the end of December 31, 2017 was a decrease of CHF 4.0 billion, or 12.0%, to CHF 29.1 billion. Prior periods have been restated.

Available economic capital trends

As of December 31, 2018, our available economic capital for the Group was CHF 49.2 billion, a decrease of CHF 1.1 billion from December 31, 2017. BIS look-through CET1 capital increased CHF 1.0 billion, mainly reflecting net income attributable to shareholders, partially offset by the cash component of a dividend accrual and a negative foreign exchange impact. Economic adjustments decreased CHF 2.1 billion, mainly driven by the redemption of CHF 5.9 billion of high-trigger tier 1 capital instruments, partially offset by new issuances.

Economic risk capital and coverage ratio

end of	2018	2017	% change
Available economic capital (CHF million, except where indicated)			
BIS look-through CET1 capital (Basel III)	35,824	34,824	3
Economic adjustments [1]	13,355	15,460	(14)
Available economic capital	**49,179**	**50,284**	(2)
Position risk			
Credit risk	2,155	2,735	(21)
Non-traded credit spread risk	3,463	2,631	32
Securitized products	1,706	945	81
Traded risk	1,574	1,121	40
Emerging markets country event risk	697	450	55
Equity investments	417	358	16
Diversification benefit [2]	(1,195)	(897)	33
Position risk (99% confidence level for risk management purposes)	**8,817**	**7,343**	20
Economic risk capital			
Position risk (99.97% confidence level for capital management purposes)	19,471	18,481	5
Operational risk	6,702	6,936	(3)
Other risks [3]	3,248	3,692	(12)
Economic risk capital	**29,421**	**29,109**	1
Economic risk capital coverage ratio (%) [4]	**167**	**173**	–

1 Includes primarily high- and low-trigger capital instruments, adjustments to unrealized gains on owned real estate, reduced recognition of deferred tax assets and adjustments to treatment of pension assets and obligations. Economic adjustments are made to BIS look-through CET1 capital to enable comparison between economic risk capital and available economic capital under the Basel III framework.
2 Reflects the net difference between the sum of the position risk categories and the position risk on the total portfolio.
3 Includes owned real estate risk, expense risk, pension risk, foreign exchange risk between available economic capital and economic risk capital, interest rate risk on treasury positions, diversification benefits and the impact from deferred share-based compensation awards.
4 Ratio of available economic capital to economic risk capital.

Economic risk capital by division

	End of period			Average		
	2018	2017	% change	**2018**	2017	% change
CHF million						
Swiss Universal Bank	5,562	5,694	(2)	5,634	5,603	1
International Wealth Management	3,128	3,288	(5)	3,206	3,084	4
Asia Pacific	4,499	3,820	18	3,965	3,836	3
Global Markets	7,819	6,764	16	7,491	6,729	11
Investment Banking & Capital Markets	3,815	3,148	21	3,384	2,790	21
Strategic Resolution Unit	3,006	4,669	(36)	3,837	6,053	(37)
Corporate Center [1]	1,592	1,726	(8)	1,718	1,655	4
Economic risk capital	**29,421**	**29,109**	1	**29,235**	**29,750**	(2)

1 Includes primarily operational risk and expense risk.

Economic risk capital trends

Compared to December 31, 2017, our economic risk capital increased 1% to CHF 29.4 billion as of December 31, 2018, mainly due to a 5% increase in position risk, partially offset by a 12% decrease in other risks and a 3% decrease in operational risk. The increase in position risk was primarily driven by higher non-traded credit spread risk due to a reduced benefit from hedges in Investment Banking & Capital Markets and new loan commitments in the US in Global Markets, higher securitized products risk, primarily reflecting a reduced benefit from hedges in Global Markets, and higher traded risk, primarily reflecting increased higher order risks in equity derivatives in the US in Global Markets. These increases were partially offset by lower credit risk, mainly due to decreased trading book exposures in the US in Global Markets, reduced counterparty exposures in Europe in the Strategic Resolution Unit and a LGD parameter update, which primarily impacted Global Markets, Investment Banking & Capital Markets and the Strategic Resolution Unit. The decrease in other risks was mainly due to lower pension risk related to the Swiss pension plan in International Wealth Management and Swiss Universal Bank, driven by a reduction in equity investments as part of portfolio rebalancing as well as a recalibration of real estate parameters. The decrease in operational risk was mainly due to increased coverage provided by our operational risk insurance policy.

Market risk review

Trading book

Development of trading book risks

The tables entitled “One-day, 98% risk management VaR” and “Average one-day, 98% risk management VaR by division” show our trading-related market risk exposure, as measured by one-day, 98% risk management VaR in Swiss francs and US dollars. As we measure trading book VaR for internal risk management purposes using the US dollar as the base currency, the VaR figures were translated into Swiss francs using daily foreign exchange translation rates. VaR estimates are computed separately for each risk type and for the whole portfolio using the historical simulation methodology. The different risk types are grouped into five categories including interest rate, credit spread, foreign exchange, commodity and equity.

We regularly review our VaR model to ensure that it remains appropriate given evolving market conditions and the composition of our trading portfolio. In 2018, there were no material changes to our VaR methodology.

Average one-day, 98% risk management VaR by division

in	Swiss Universal Bank	International Wealth Management	Asia Pacific	Global Markets	Strategic Resolution Unit	Diversification benefit [1]	**Credit Suisse**
CHF million							
2018	0	2	15	22	3	(13)	29
2017	0	4	13	21	6	(18)	26
2016	3	2	16	26	13	(27)	33
USD million							
2018	0	2	15	23	4	(15)	29
2017	0	4	13	21	6	(18)	26
2016	3	2	17	27	14	(29)	34

Excludes risks associated with counterparty and own credit exposures. Investment Banking & Capital Markets has only banking book positions.
1 Difference between the sum of the standalone VaR for each division and the VaR for the Group.

One-day, 98% risk management VaR

in / end of	Interest rate	Credit spread	Foreign exchange	Commodity	Equity	Diversification benefit	**Total**
CHF million							
2018							
Average	17	20	4	1	11	(24)	29
Minimum	11	17	3	1	8	–[1]	22
Maximum	26	23	14	2	24	–[1]	36
End of period	16	19	3	1	14	(23)	30
2017							
Average	16	19	6	2	10	(27)	26
Minimum	11	16	4	1	8	–[1]	21
Maximum	23	23	12	6	13	–[1]	31
End of period	15	19	5	1	10	(22)	28
2016							
Average	14	28	8	2	16	(35)	33
Minimum	9	20	4	1	10	–[1]	24
Maximum	20	44	18	3	38	–[1]	65
End of period	15	21	7	1	13	(28)	29
USD million							
2018							
Average	18	20	5	1	12	(27)	29
Minimum	11	17	3	1	9	–[1]	22
Maximum	26	24	14	3	24	–[1]	36
End of period	16	19	3	1	14	(23)	30
2017							
Average	16	19	6	2	10	(27)	26
Minimum	11	17	4	1	8	–[1]	22
Maximum	23	23	12	7	13	–[1]	33
End of period	15	19	5	1	10	(21)	29
2016							
Average	14	28	9	2	17	(36)	34
Minimum	9	21	3	1	10	–[1]	23
Maximum	20	44	18	3	38	–[1]	65
End of period	15	21	6	1	13	(28)	28

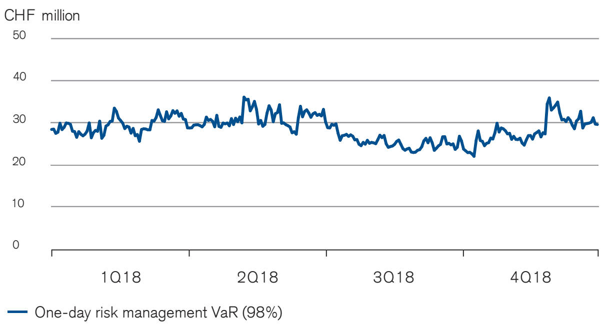
Excludes risks associated with counterparty and own credit exposures.
1 As the maximum and minimum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit.

We measure VaR in US dollars, as the majority of our trading activities are conducted in US dollars.

Period-end risk management VaR of USD 30 million as of December 31, 2018 remained largely stable compared to USD 29 million as of December 31, 2017. Average risk management VaR of USD 29 million in 2018 increased USD 3 million compared to 2017, mainly due to increased interest rate risk exposures and increased credit positions in Global Markets.

The chart entitled "Daily risk management VaR" shows the aggregated market risk in our trading book on a consolidated basis.

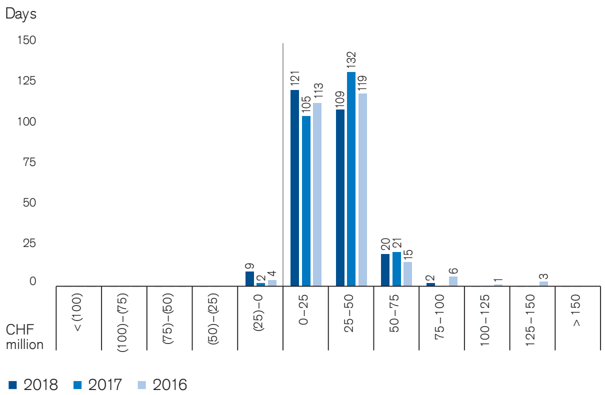
Daily risk management VaR



Excludes risks associated with counterparty and own credit exposures.

The histogram entitled "Actual daily trading revenues" compares the actual daily trading revenues for 2018 with those for 2017 and 2016. The dispersion of trading revenues indicates the day-to-day volatility in our trading activities. In 2018, we had nine trading loss days compared to two trading loss days in 2017, each with a trading loss not exceeding CHF 25 million.

Actual daily trading revenues



Trading revenues exclude valuation adjustments associated with counterparty and own credit exposures.

For capital purposes and in line with BIS requirements, FINMA increases the capital multiplier for every regulatory VaR backtesting exception above four in the prior rolling 12-month period, resulting in an incremental market risk capital requirement for the Group. For 2018 we had one backtesting exception in our regulatory VaR model, compared to no backtesting exceptions in 2017 and two backtesting exceptions in 2016, remaining in the regulatory "green zone" for all three periods.

→ Refer to "Risk-weighted assets" in Capital management for further information on the use of our regulatory VaR model in the calculation of trading book market risk capital requirements.

Banking book

Development of banking book interest rate risks

Interest rate risk on banking book positions is measured by estimating the impact resulting from a one basis point parallel increase in yield curves on the present value of interest rate-sensitive banking book positions. In the course of 2018, we updated our internal methodology for measuring interest rate risk on banking book positions in anticipation of new FINMA rules, which became effective on January 1, 2019. For regulatory purposes, we now exclude from the Group's exposure calculation non-interest-bearing assets and liabilities comprising the sum of shareholders' equity less deferred tax assets, goodwill and premises and equipment. We have also updated the client margin measurement on our Swiss private banking lending portfolio. The Group's strategy for managing interest rate risk on banking book positions has not been affected. The prior-period balance has been restated to reflect these methodology updates. As of December 31, 2018, the interest rate sensitivity of a one basis point parallel increase in yield curves was negative CHF 1.5 million, compared to positive CHF 0.2 million as of December 31, 2017. The change was mainly driven by the issuance of new high-trigger tier 1 capital notes and the related interest rate hedges as well as the aging effect arising from the overall portfolio of outstanding capital instruments.

One basis point parallel increase in yield curves by currency – banking book positions

end of	CHF	USD	EUR	GBP	Other	**Total**
2018 (CHF million)						
Impact on present value	0.0	(1.6)	0.1	(0.1)	0.1	(1.5)
2017 (CHF million)						
Impact on present value	0.4	(0.4)	(0.1)	0.0	0.3	0.2

Interest rate risk on banking book positions is also assessed using other measures, including the potential value change resulting from a significant change in yield curves. The table "Interest rate scenario results – banking book positions" shows the impact of immediate 100 basis point and 200 basis point moves in the yield curves.

As of December 31, 2018, the most adverse impact of a 200 basis point upward or downward move in yield curves on the present value of banking book positions was a loss of CHF 183 million, compared to a gain of CHF 3 million as of December 31, 2017. The monthly analysis of the potential impact resulting from a significant change in yield curves indicated that as of the end of 2018 and 2017, the most adverse impact of a 200 basis point upward or downward move in yield curves on the present value of interest rate-sensitive banking book positions in relation to total eligible regulatory capital was significantly below the 20% threshold used by regulators to identify banks that potentially run excessive levels of interest rate risk in the banking book. In 2018, we also commenced our internal monitoring of the Group's exposure calculation in anticipation of the new FINMA rules for measuring interest rate risk on banking book positions.

Interest rate scenario results – banking book positions

end of	CHF	USD	EUR	GBP	Other	**Total**
2018 (CHF million)						
Increase (+)/decrease (–) in interest rates						
+200 bp	17	(266)	61	(8)	13	(183)
+100 bp	6	(145)	20	(5)	7	(117)
–100 bp	0	169	0	7	(9)	167
–200 bp	6	362	20	15	(18)	385
2017 (CHF million)						
Increase (+)/decrease (–) in interest rates						
+200 bp	77	(38)	2	1	49	91
+100 bp	42	(30)	(2)	(1)	25	34
–100 bp	(48)	50	9	4	(26)	(11)
–200 bp	(101)	119	25	12	(52)	3

Development of banking book equity risks

Our equity portfolios of the banking book include positions in private equity, hedge funds, strategic investments and other instruments. These positions may not be strongly correlated with general equity markets. Equity risk on banking book positions is measured using sensitivity analysis that estimates the potential change in value resulting from a 10% decline in the equity markets of developed nations and a 20% decline in the equity markets of emerging market nations. The estimated impact of this scenario would have been a decrease of CHF 312 million in the value of the banking book portfolio as of December 31, 2018, compared to a decrease of CHF 391 million as of December 31, 2017.

Development of banking book commodity risks

Our commodity portfolios of the banking book include mainly precious metals, primarily gold. Commodity risk on banking book positions is measured using sensitivity analysis that estimates the potential change in value resulting from a 20% weakening in commodity prices. The estimated impact of this scenario on the value of the banking book portfolio would have been a decrease of CHF 0.1 million as of December 31, 2018 and 2017.

Credit and debit valuation adjustments

VaR excludes the impact of changes in both counterparty and our own credit spreads on derivative products. As of December 31, 2018, the estimated sensitivity implies that a one basis point increase in credit spreads, both counterparty and our own, would have resulted in a CHF 0.8 million gain on the overall derivatives position in the investment banking businesses. In addition, a one basis point increase in our own credit spread on our fair valued structured notes portfolio (including the impact of hedges) would have resulted in a CHF 25.3 million gain as of December 31, 2018.

Credit risk review

Credit risk overview

All transactions that are exposed to potential losses arising as a result of a borrower or counterparty failing to meet its financial obligations or as a result of deterioration in the credit quality of the borrower or counterparty are subject to credit risk exposure measurement and management.

→ Refer to "Impaired loans" in VI – Consolidated financial statements – Credit Suisse Group – Note 19 – Loans, allowance for loan losses and credit quality for information on credit quality and aging analysis of loans.

For regulatory capital purposes, credit risk comprises several regulatory categories where credit risk measurement and related regulatory capital requirements are subject to different measurement approaches under the Basel framework. Details on regulatory credit risk categories, credit quality indicators and credit risk concentration are available in our disclosures required under Pillar 3 of the Basel framework related to risk, which will be available on our website.

→ Refer to "credit-suisse.com/regulatorydisclosures" for further information.

Loans and irrevocable loan commitments

The following table provides an overview of loans and irrevocable loan commitments by division in accordance with accounting principles generally accepted in the US and are not comparable with the regulatory credit risk exposures presented in our disclosures required under Pillar 3 of the Basel framework.

Loans and irrevocable loan commitments

end of	**2018**	2017	% change
CHF million			
Gross loans	288,596	280,137	3
Irrevocable loan commitments	116,074	106,401	9
Total loans and irrevocable loan commitments	**404,670**	**386,538**	5
of which Swiss Universal Bank	178,595	174,386	2
of which International Wealth Management	56,013	54,378	3
of which Asia Pacific	48,087	47,145	2
of which Global Markets	73,940	61,649	20
of which Investment Banking & Capital Markets	46,001	43,692	5
of which Strategic Resolution Unit	1,591	4,623	(66)

Loans held-for-sale and traded loans

As of December 31, 2018 and 2017, loans held-for-sale included CHF 29 million and CHF 61 million, respectively, of seasoned US subprime residential mortgages from consolidated variable interest entities (VIE). Traded loans included US subprime residential mortgages of CHF 761 million and CHF 1,067 million as of December 31, 2018 and 2017, respectively.

Loans

The table "Loans" provides an overview of our loans by loan classes, impaired loans, the related allowance for loan losses and selected loan metrics by business division. The carrying values of loans and related allowance for loan losses are presented in accordance with generally accepted accounting standards in the US and are not comparable with the regulatory credit risk exposures presented in our disclosures required under Pillar 3 of the Basel framework.

Compared to December 31, 2017, gross loans increased CHF 8.5 billion to CHF 288.6 billion as of December 31, 2018, mainly due to higher commercial and industrial loans, higher loans to financial institutions, higher consumer mortgages and the translation impact from the US dollar. These increases were partially offset by lower consumer finance loans and the translation impact from the euro. The net increase of CHF 4.0 billion in commercial and industrial loans reflected increases in Swiss Universal Bank, Global Markets, International Wealth Management and Investment Banking & Capital Markets, partially offset by decreases in the Strategic Resolution Unit and Asia Pacific. The net increase of CHF 2.8 billion in loans to financial institutions was mainly driven by increases in Global Markets and Asia Pacific, partially offset by decreases in the Strategic Resolution Unit and Swiss Universal Bank. Consumer mortgages increased CHF 1.8 billion, mainly driven by an increase in Swiss Universal Bank. Consumer finance loans decreased CHF 0.3 billion, primarily due to a decrease in International Wealth Management.

On a divisional level, increases in gross loans of CHF 4.7 billion in Global Markets, CHF 3.4 billion in Swiss Universal Bank, CHF 1.2 billion in International Wealth Management, CHF 0.8 billion in Investment Banking & Capital Markets and CHF 0.7 billion in Asia Pacific were partially offset by a decrease of CHF 2.3 billion in the Strategic Resolution Unit.

→ Refer to "Note 19 – Loans, allowance for loan losses and credit quality" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Loans

end of	Swiss Universal Bank	International Wealth Management	Asia Pacific	Global Markets	Investment Banking & Capital Markets	Strategic Resolution Unit	**Credit Suisse** [1]
2018 (CHF million)							
Mortgages	102,358	3,979	1,435	0	0	73	107,845
Loans collateralized by securities	6,978	19,416	14,161	0	1,444	35	42,034
Consumer finance	3,298	508	3	13	0	83	3,905
Consumer	112,634	23,903	15,599	13	1,444	191	153,784
Real estate	22,902	2,109	1,273	184	242	17	26,727
Commercial and industrial loans	30,291	24,095	21,938	5,182	3,567	458	85,698
Financial institutions	2,294	1,592	4,175	9,080	632	521	18,494
Governments and public institutions	694	245	843	1,876	0	235	3,893
Corporate & institutional	56,181 [2]	28,041 [3]	28,229 [4]	16,322	4,441	1,231	134,812
Gross loans	**168,815**	**51,944**	**43,828**	**16,335**	**5,885**	**1,422**	**288,596**
of which held at fair value	37	85	5,263	7,572	1,221	695	14,873
Net (unearned income) / deferred expenses	82	(118)	(33)	(32)	(11)	(1)	(113)
Allowance for loan losses [5]	(504)	(131)	(82)	(60)	(69)	(56)	(902)
Net loans	**168,393**	**51,695**	**43,713**	**16,243**	**5,805**	**1,365**	**287,581**
2017 (CHF million)							
Mortgages	100,498	4,106	1,309	0	0	126	106,039
Loans collateralized by securities	6,934	18,848	14,731	0	1,409	94	42,016
Consumer finance	3,174	941	25	17	0	85	4,242
Consumer	110,606	23,895	16,065	17	1,409	305	152,297
Real estate	23,158	1,968	720	302	403	48	26,599
Commercial and industrial loans	28,230	22,669	22,499	3,576	2,834	1,731	81,670
Financial institutions	2,749	1,917	2,912	6,432	422	1,059	15,697
Governments and public institutions	707	246	977	1,355	0	589	3,874
Corporate & institutional	54,844 [2]	26,800 [3]	27,108 [4]	11,665	3,659	3,427	127,840
Gross loans	**165,450**	**50,695**	**43,173**	**11,682**	**5,068**	**3,732**	**280,137**
of which held at fair value	33	150	4,837	6,743	1,483	2,061	15,307
Net (unearned income) / deferred expenses	56	(113)	(19)	(17)	(12)	(1)	(106)
Allowance for loan losses [5]	(465)	(108)	(74)	(44)	(55)	(136)	(882)
Net loans	**165,041**	**50,474**	**43,080**	**11,621**	**5,001**	**3,595**	**279,149**

1 Includes the Corporate Center, in addition to the divisions disclosed.
2 The values of financial collateral and mortgages related to secured loans, considered up to the amount of the related loans, were CHF 10,834 million and CHF 33,533 million, respectively, as of December 31, 2018, and CHF 11,201 million and CHF 32,704 million, respectively, as of December 31, 2017.
3 The values of financial collateral and mortgages related to secured loans, considered up to the amount of the related loans, were CHF 22,040 million and CHF 2,151 million, respectively, as of December 31, 2018, and CHF 20,485 million and CHF 1,809 million, respectively, as of December 31, 2017.
4 The values of financial collateral and mortgages related to secured loans, considered up to the amount of the related loans, were CHF 17,220 million and CHF 183 million, respectively, as of December 31, 2018, and CHF 19,566 million and CHF 138 million, respectively, as of December 31, 2017.
5 Allowance for loan losses is only based on loans that are not carried at fair value.

As of December 31, 2018, 97% of the aggregate Swiss residential mortgage loan portfolio of CHF 108.5 billion had a loan-to-value (LTV) ratio equal to or lower than 80%. As of December 31, 2017, 97% of the aggregate Swiss residential mortgage loan portfolio of CHF 105.1 billion had an LTV ratio equal to or lower than 80%. For substantially all Swiss residential mortgage loans originated in 2018 and 2017, the average LTV ratio was equal to or lower than 80% at origination. Our LTV ratios are based on the most recent appraised value of the collateral.

Impaired loans

end of	Swiss Universal Bank	International Wealth Management	Asia Pacific	Global Markets	Investment Banking & Capital Markets	Strategic Resolution Unit	**Credit Suisse** [1]
2018 (CHF million)							
Non-performing loans	365	534	183	29	37	55	1,203
Non-interest-earning loans	245	43	0	0	0	12	300
Non-performing and non-interest-earning loans	610	577	183	29	37	67	1,503
Restructured loans	76	130	0	5	8	80	299
Potential problem loans	247	128	2	9	0	4	390
Other impaired loans	323	258	2	14	8	84	689
Gross impaired loans [2]	**933**	**835** [3]	**185**	**43**	**45**	**151**	**2,192**
of which loans with a specific allowance	842	308	100	38	37	145	1,470
of which loans without a specific allowance	91	527	85	5	8	6	722
2017 (CHF million)							
Non-performing loans	413	327	92	32	36	148	1,048
Non-interest-earning loans	161	16	0	0	0	46	223
Non-performing and non-interest-earning loans	574	343	92	32	36	194	1,271
Restructured loans	66	95	0	0	0	129	290
Potential problem loans	129	103	29	9	0	279	549
Other impaired loans	195	198	29	9	0	408	839
Gross impaired loans [2]	**769**	**541** [3]	**121**	**41**	**36**	**602**	**2,110**
of which loans with a specific allowance	694	245	91	41	36	569	1,676
of which loans without a specific allowance	75	296	30	0	0	33	434

1 Includes the Corporate Center, in addition to the divisions disclosed.
2 Impaired loans are only based on loans that are not carried at fair value.
3 Includes gross impaired loans of CHF 62 million and CHF 111 million as of December 31, 2018 and 2017, respectively, which are mostly secured by guarantees provided by investment-grade export credit agencies.

Impaired loans and allowance for loan losses

Compared to December 31, 2017, gross impaired loans increased CHF 82 million to CHF 2.2 billion as of December 31, 2018, mainly driven by higher non-performing loans in International Wealth Management and Asia Pacific and higher non-interest-earning loans in Swiss Universal Bank, partially offset by lower potential problem loans in the Strategic Resolution Unit.

In International Wealth Management, gross impaired loans increased CHF 294 million, primarily driven by newly impaired positions in ship finance and European mortgages, partially offset by reductions in export finance. In Swiss Universal Bank, gross impaired loans increased CHF 164 million, mainly reflecting newly impaired positions in the commodity trade finance and the small and medium-sized enterprises business areas. In Asia Pacific, gross impaired loans increased CHF 64 million, mainly driven by newly impaired positions in ship finance and the default of an Indian infrastructure development company, partially offset by reductions in impaired loans for several private individuals. Gross impaired loans in Investment Banking & Capital Markets increased CHF 9 million, mainly driven by the transfer of a restructured loan from the Strategic Resolution Unit. In the Strategic Resolution Unit, gross impaired loans decreased CHF 451 million, primarily driven by reductions in ship finance and Swiss real estate leasing.

→ Refer to "Impaired loans" in VI – Consolidated financial statements – Credit Suisse Group – Note 19 – Loans, allowance for loan losses and credit quality for information on categories of impaired loans.

Allowance for loan losses

end of	Swiss Universal Bank	International Wealth Management	Asia Pacific	Global Markets	Investment Banking & Capital Markets	Strategic Resolution Unit	**Credit Suisse** [1]
2018 (CHF million)							
Balance at beginning of period [2]	**465**	**108**	**74**	**44**	**55**	**136**	**882**
of which individually evaluated for impairment	340	75	56	24	27	132	654
of which collectively evaluated for impairment	125	33	18	20	28	4	228
Transfers and reclassifications	0	0	0	1	2	(3)	0
Net movements recognized in statements of operations	121	35	34	9	3	(1)	201
Gross write-offs	(124)	(19)	(35)	(4)	0	(87)	(269)
Recoveries	34	2	1	9	8	4	58
Net write-offs	(90)	(17)	(34)	5	8	(83)	(211)
Provisions for interest	8	6	7	1	2	6	30
Foreign currency translation impact and other adjustments, net	0	(1)	1	0	(1)	1	0
Balance at end of period [2]	**504**	**131**	**82**	**60**	**69**	**56**	**902**
of which individually evaluated for impairment	358	91	47	27	30	55	608
of which collectively evaluated for impairment	146	40	35	33	39	1	294

1 Includes the Corporate Center, in addition to the divisions disclosed.
2 Allowance for loan losses is only based on loans that are not carried at fair value.

The following tables provide an overview of changes in impaired loans and related allowance for loan losses by loan portfolio segment.

Gross impaired loans by loan portfolio segment

	Consumer	Corporate & institutional	**Total**
2018 (CHF million)			
Balance at beginning of period	**632**	**1,478**	**2,110**
New impaired loans	470	997	1,467
Increase in existing impaired loans	30	44	74
Reclassifications to performing loans	(202)	(104)	(306)
Repayments [1]	(121)	(250)	(371)
Liquidation of collateral, insurance or guarantee payments	(47)	(208)	(255)
Sales [2]	0	(263)	(263)
Write-offs	(79)	(182)	(261)
Foreign currency translation impact and other adjustments, net	(6)	3	(3)
Balance at end of period	**677**	**1,515**	**2,192**

1 Full or partial principal repayments.
2 Includes transfers to loans held-for-sale for intended sales of held-to-maturity loans.

Allowance for loan losses by loan portfolio segment

	Consumer	Corporate & institutional	Total
2018 (CHF million)			
Balance at beginning of period	**220**	**662**	**882**
of which individually evaluated for impairment	179	475	654
of which collectively evaluated for impairment	41	187	228
Net movements recognized in statements of operations	19	182	201
Gross write-offs	(85)	(184)	(269)
Recoveries	21	37	58
Net write-offs	(64)	(147)	(211)
Provisions for interest	11	19	30
Foreign currency translation impact and other adjustments, net	1	(1)	0
Balance at end of period	**187**	**715**	**902**
of which individually evaluated for impairment	146	462	608
of which collectively evaluated for impairment	41	253	294

Loan metrics

end of	Swiss Universal Bank	International Wealth Management	Asia Pacific	Global Markets	Investment Banking & Capital Markets	Strategic Resolution Unit	**Credit Suisse** [1]
2018 (%)							
Non-performing and non-interest-earning loans / Gross loans	0.4	1.1	0.5	0.3	0.8	9.2	0.5
Gross impaired loans / Gross loans	0.6	1.6	0.5	0.5	1.0	20.8	0.8
Allowance for loan losses / Gross loans	0.3	0.3	0.2	0.7	1.5	7.7	0.3
Specific allowance for loan losses / Gross impaired loans	38.4	10.9	25.4	62.8	66.7	36.4	27.7
2017 (%)							
Non-performing and non-interest-earning loans / Gross loans	0.3	0.7	0.2	0.6	1.0	11.6	0.5
Gross impaired loans / Gross loans	0.5	1.1	0.3	0.8	1.0	36.0	0.8
Allowance for loan losses / Gross loans	0.3	0.2	0.2	0.9	1.5	8.1	0.3
Specific allowance for loan losses / Gross impaired loans	44.2	13.9	46.3	58.5	75.0	21.9	31.0

Gross loans and gross impaired loans exclude loans carried at fair value and the allowance for loan losses is only based on loans that are not carried at fair value.
1 Includes the Corporate Center, in addition to the divisions disclosed.

Derivative instruments

We enter into derivative contracts in the normal course of business for market making, positioning and arbitrage purposes, as well as for our own risk management needs, including mitigation of interest rate, foreign exchange and credit risk.

Derivatives are either privately negotiated OTC contracts or standard contracts transacted through regulated exchanges. The most frequently used derivative products include interest rate swaps, cross-currency swaps and credit default swaps (CDS), interest rate and foreign exchange options, foreign exchange forward contracts, and foreign exchange and interest rate futures.

The replacement values of derivative instruments correspond to their fair values at the dates of the consolidated balance sheets and arise from transactions for the account of individual customers and for our own account. Positive replacement values (PRV) constitute an asset, while negative replacement values (NRV) constitute a liability. Fair value does not indicate future gains or losses, but rather premiums paid or received for a derivative instrument at inception, if applicable, and unrealized gains and losses from marking to market all derivatives at a particular point in time. The fair values of derivatives are determined using various methodologies, primarily observable market prices where available and, in their absence, observable market parameters for instruments with similar characteristics and maturities, net present value analysis or other pricing models as appropriate.

The following table illustrates how credit risk on derivatives receivables is reduced by the use of legally enforceable netting agreements and collateral agreements. Netting agreements allow us to net balances from derivative assets and liabilities transacted with the same counterparty when the netting agreements are legally enforceable. Replacement values are disclosed net of such agreements in the consolidated balance sheets. Collateral agreements are entered into with certain counterparties based upon the nature of the counterparty and/or the transaction and require the placement of cash or securities with us as collateral for the underlying transaction. The carrying values of derivatives are presented in accordance with generally accepted accounting standards in the US and are not comparable with the derivatives metrics presented in our disclosures required under Pillar 3 of the Basel framework.

Derivative instruments by maturity

end of / due within	Less than 1 year	1 to 5 years	More than 5 years	2018 Positive replacement value	Less than 1 year	1 to 5 years	More than 5 years	2017 Positive replacement value
CHF billion								
Interest rate products	8.0	19.1	42.6	69.7	9.6	26.5	50.9	87.0
Foreign exchange products	14.8	7.5	5.6	27.9	16.3	8.0	6.2	30.5
Equity/index-related products	5.5	5.8	0.2	11.5	5.4	6.6	0.1	12.1
Credit derivatives	0.6	2.9	1.9	5.4	0.6	5.3	1.8	7.7
Other products [1]	0.7	0.0	1.0	1.7	0.4	0.2	1.0	1.6
OTC derivative instruments	**29.6**	**35.3**	**51.3**	**116.2**	**32.3**	**46.6**	**60.0**	**138.9**
Exchange-traded derivative instruments				12.2				9.5
Netting agreements [2]				(110.1)				(128.8)
Total derivative instruments				**18.3**				**19.6**
of which recorded in trading assets				18.3				19.6
of which recorded in other assets				0.0				0.0

1 Primarily precious metals, commodity and energy products.
2 Taking into account legally enforceable netting agreements.

Derivative transactions exposed to credit risk are subject to a credit request and approval process, ongoing credit and counterparty monitoring and a credit quality review process. The following table represents the rating split of our credit exposure from derivative instruments.

Derivative instruments by counterparty credit rating

end of	2018	2017
CHF billion		
AAA	1.3	1.5
AA	5.9	5.7
A	3.3	4.1
BBB	5.5	5.7
BB or lower	1.7	1.7
OTC derivative instruments	**17.7**	**18.7**
Exchange-traded derivative instruments [1]	0.6	0.9
Total derivative instruments [1]	**18.3**	**19.6**

1 Taking into account legally enforceable netting agreements.

Derivative instruments by maturity and by counterparty credit rating for the Bank are not materially different, neither in absolute amounts nor in terms of movements, from the information for the Group presented above.

Derivative instruments are categorized as exposures from trading activities (trading) and those qualifying for hedge accounting (hedging). Trading includes activities relating to market making, positioning and arbitrage. It also includes economic hedges where the Group enters into derivative contracts for its own risk management purposes, but where the contracts do not qualify for hedge accounting under US GAAP. Hedging includes contracts that qualify for hedge accounting under US GAAP, such as fair value hedges, cash flow hedges and net investment hedges.

→ Refer to "Note 27 – Offsetting of financial assets and financial liabilities" in VI – Consolidated financial statements – Credit Suisse Group for further information on offsetting of derivatives.

→ Refer to "Note 32 – Derivatives and hedging activities" in VI – Consolidated financial statements – Credit Suisse Group for further information on derivatives, including an overview of derivatives by products categorized for trading and hedging purposes.

Forwards and futures

We enter into forward purchase and sale contracts for mortgage-backed securities, foreign currencies and commitments to buy or sell commercial and residential mortgages. In addition, we enter into futures contracts on equity-based indices and other financial instruments, as well as options on futures contracts. These contracts are typically entered into to meet the needs of customers, for trading and for hedging purposes.

On forward contracts, we are exposed to counterparty credit risk. To mitigate this credit risk, we limit transactions by counterparty, regularly review credit limits and adhere to internally established credit extension policies.

For futures contracts and options on futures contracts, the change in the market value is settled with a clearing broker in cash each day. As a result, our credit risk with the clearing broker is limited to the net positive change in the market value for a single day.

Swaps
Our swap agreements consist primarily of interest rate swaps, CDS, currency and equity swaps. We enter into swap agreements for trading and risk management purposes. Interest rate swaps are contractual agreements to exchange interest rate payments based on agreed upon notional amounts and maturities. CDS are contractual agreements in which the buyer of the swap pays a periodic fee in return for a contingent payment by the seller of the swap following a credit event of a reference entity. A credit event is commonly defined as bankruptcy, insolvency, receivership, material adverse restructuring of debt, or failure to meet payment obligations when due. Currency swaps are contractual agreements to exchange payments in different currencies based on agreed notional amounts and currency pairs. Equity swaps are contractual agreements to receive the appreciation or depreciation in value based on a specific strike price on an equity instrument in exchange for paying another rate, which is usually based on an index or interest rate movements.

Options
We write options specifically designed to meet the needs of customers and for trading purposes. These written options do not expose us to the credit risk of the customer because, if exercised, we and not our counterparty are obligated to perform. At the beginning of the contract period, we receive a cash premium. During the contract period, we bear the risk of unfavorable changes in the value of the financial instruments underlying the options. To manage this market risk, we purchase or sell cash or derivative financial instruments. Such purchases and sales may include debt and equity securities, forward and futures contracts, swaps and options.

We also purchase options to meet customer needs, for trading purposes and for hedging purposes. For purchased options, we obtain the right to buy or sell the underlying instrument at a fixed price on or before a specified date. During the contract period, our risk is limited to the premium paid. The underlying instruments for these options typically include fixed income and equity securities, foreign currencies and interest rate instruments or indices. Counterparties to these option contracts are regularly reviewed in order to assess creditworthiness.

Selected European credit risk exposures
The scope of our disclosure of European credit risk exposure includes all countries of the EU which are rated below AA or its equivalent by at least one of the three major rating agencies and where our gross exposure exceeds our quantitative threshold of EUR 0.5 billion. We believe this external rating is a useful measure in determining the financial ability of countries to meet their financial obligations, including giving an indication of vulnerability to adverse business, financial and economic conditions.

Monitoring of selected European credit risk exposures
Our credit risk exposure to these European countries is managed as part of our overall risk management process. The Group makes use of country limits and performs scenario analyses on a regular basis, which include analyses of our indirect sovereign credit risk exposures from our exposures to selected European financial institutions. This assessment of indirect sovereign credit risk exposures includes analysis of publicly available disclosures of counterparties' exposures to the European countries within the defined scope of our disclosure. We monitor the concentration of collateral underpinning our OTC derivative and reverse repurchase agreement exposures through monthly reporting. We also monitor the impact of sovereign rating downgrades on collateral eligibility. Strict limits on sovereign collateral from G7 and non-G7 countries are monitored monthly. Similar disclosure is part of our regular risk reporting to regulators.

As part of our global scenario framework, the counterparty credit risk stress testing framework measures counterparty exposure under scenarios calibrated to the 99th percentile for the worst one month and one year moves observed in the available history, as well as the absolutely worst weekly move observed in the same dataset. The scenario results are aggregated at the counterparty level for all our counterparties, including all European countries to which we have exposure. Furthermore, counterparty default scenarios are run where specific entities are set to default. In one of these scenarios, a European sovereign default is investigated. This scenario determines the maximum exposure that we have to this country in the event of its default and serves to identify those counterparties where exposure will rise substantially as a result of the modeled country defaulting.

The scenario framework also considers a range of other severe scenarios, including a specific eurozone crisis scenario which assumes the default of selected European countries, currently modeled to include Greece, Ireland, Italy, Portugal and Spain. It is assumed that the sovereigns, financial institutions and corporates within these countries default, with a 100% loss of sovereign and financial institutions exposures and a 0% to 100% loss of corporates depending on their credit ratings. As part of this scenario, we additionally assume a severe market sell-off involving an equity market crash, widening credit spreads, a rally in the price of gold and a devaluation of the euro. In addition, the eurozone crisis scenario assumes the default of a small number of our market counterparties that we believe would be severely affected by a default across the selected European countries. These counterparties are assumed to default as we believe that they would be the most affected institutions because of their direct presence in the relevant countries and their direct exposures. Through these processes, revaluation and redenomination risks on our exposures are considered on a regular basis by our risk management function.

Presentation of selected European credit risk exposures

The basis for the presentation of the country exposure is our internal risk domicile view. The risk domicile view is based on the domicile of the legal counterparty, i.e., it may include exposure to a legal entity domiciled in the reported country even if its parent is located outside of the country.

The credit risk exposure in the table is presented on a risk-based view before deduction of any related allowance for loan losses. We present our credit risk exposure and related risk mitigation for the following distinct categories:

- *Gross credit risk exposure* includes the principal amount of loans drawn, letters of credit issued and undrawn portions of committed facilities, the PRV of derivative instruments after consideration of legally enforceable netting agreements, the notional value of investments in money market funds and the market values of securities financing transactions and the debt cash trading portfolio (short-term securities) netted at the issuer level.
- *Risk mitigation* includes CDS and other hedges, at their net notional amount, guarantees, insurance and collateral (primarily cash, securities and, to a lesser extent, real estate, mainly for exposures of our private banking, corporate and institutional businesses to corporates & other). Collateral values applied for the calculation of the net exposure are determined in accordance with our risk management policies and reflect applicable margining considerations.
- *Net credit risk exposure* represents gross credit risk exposure net of risk mitigation.
- *Inventory* represents the long inventory positions in trading and non-trading physical debt and synthetic positions, each at market value, all netted at the issuer level. Physical debt is non-derivative debt positions (e.g., bonds), and synthetic positions are created through OTC contracts (e.g., CDS purchased and/or sold and total return swaps).

CDS presented in the risk mitigation column are purchased as a direct hedge to our OTC exposure and the risk mitigation impact is considered to be the notional amount of the contract for risk purposes, with the mark-to-market fair value of CDS risk-managed against the protection provider. Net notional amounts of CDS reflect the notional amount of CDS protection purchased less the notional amount of CDS protection sold and are based on the origin of the CDS reference credit, rather than that of the CDS counterparty. CDS included in the inventory column represent contracts recorded in our trading books that are hedging the credit risk of the instruments included in the inventory column and are disclosed on the same basis as the value of the fixed income instrument they are hedging.

We do not have any tranched CDS positions on these European countries and only an insignificant amount of indexed credit derivatives is included in inventory.

The credit risk of CDS contracts themselves, i.e., the risk that the CDS counterparty will not perform in the event of a default, is managed separately from the credit risk of the reference credit. To mitigate such credit risk, generally all CDS contracts are collateralized. In addition, they are executed with counterparties with whom we have an enforceable International Swaps and Derivatives Association (ISDA) master agreement that provides for daily margining.

Development of selected European credit risk exposures

On a gross basis, before taking into account risk mitigation, our risk-based sovereign credit risk exposure to Cyprus, Croatia, Greece, Ireland, Italy, Malta, Portugal and Spain increased 11% to EUR 3,350 million as of December 31, 2018, compared to EUR 3,008 million as of December 31, 2017. Our net exposure to these sovereigns was EUR 2,640 million, 80% higher compared to EUR 1,463 million as of December 31, 2017. Our non-sovereign risk-based credit risk exposure in these countries as of December 31, 2018 included net exposures to financial institutions of EUR 2,462 million, 30% higher compared to December 31, 2017, and net exposures to corporates and other counterparties of EUR 2,869 million, 20% higher compared to December 31, 2017.

A significant majority of the purchased credit protection is transacted with central counterparties or banks outside of the disclosed countries. For credit protection purchased from central counterparties or banks in the disclosed countries, such credit risk is reflected in the gross and net exposure to each respective country.

Sovereign debt rating developments

From year-end 2017 through February 28, 2019, the long-term sovereign debt ratings of the countries listed in the table changed as follows: Standard & Poor's increased Croatia's rating from BB to BB+, increased Cyprus' rating from BB+ to BBB-, increased Greece's rating from B- to B+ and increased Spain's rating from BBB+ to A-. Fitch increased Croatia's rating from BB to BB+, increased Cyprus' rating from BB to BBB-, increased Greece's rating from B- to BB-, increased Malta's rating from A to A+ and increased Spain's rating from BBB+ to A-. Moody's increased Cyprus' rating from BA3 to BA2, increased Greece's rating from CAA2 to B3, decreased Italy's rating from BAA2 to BAA3, increased Portugal's rating from BA1 to BAA3 and increased Spain's rating from BAA2 to BAA1. These rating changes did not have a significant impact on the Group's financial position, result of operations, liquidity or capital resources.

Selected European credit risk exposures

	Gross credit risk exposure	Risk mitigation		Net credit risk exposure	Inventory [2]		Total credit risk exposure	
December 31, 2018		CDS	Other [1]			Net synthetic inventory [3]	Gross	Net
Croatia (EUR million)								
Sovereign	0	0	0	0	6	6	6	6
Corporates & other	50	0	0	50	0	0	50	50
Total	**50**	**0**	**0**	**50**	**6**	**6**	**56**	**56**
Cyprus								
Sovereign	0	0	0	0	2	0	2	2
Financial institutions	9	0	8	1	0	0	9	1
Corporates & other	1,151	0	1,077	74	0	0	1,151	74
Total	**1,160**	**0**	**1,085**	**75**	**2**	**0**	**1,162**	**77**
Greece								
Financial institutions	154	0	153	1	0	0	154	1
Corporates & other	470	0	430	40	0	(13)	470	40
Total	**624**	**0**	**583**	**41**	**0**	**(13)**	**624**	**41**
Ireland								
Sovereign	2,004	0	0	2,004	0	0	2,004	2,004
Financial institutions	1,274	0	249	1,025	28	(14)	1,302	1,053
Corporates & other	951	0	347	604	22	(114)	973	626
Total	**4,229**	**0**	**596**	**3,633**	**50**	**(128)**	**4,279**	**3,683**
Italy								
Sovereign	984	617	93	274	0	(324)	984	274
Financial institutions	1,509	2	655	852	1	(113)	1,510	853
Corporates & other	4,208	81	3,072	1,055	34	(162)	4,242	1,089
Total	**6,701**	**700**	**3,820**	**2,181**	**35**	**(599)**	**6,736**	**2,216**
Malta								
Financial institutions	72	0	0	72	0	0	72	72
Corporates & other	533	0	511	22	0	0	533	22
Total	**605**	**0**	**511**	**94**	**0**	**0**	**605**	**94**
Portugal								
Sovereign	0	0	0	0	30	36	30	30
Financial institutions	185	0	175	10	7	(9)	192	17
Corporates & other	314	13	224	77	2	(191)	316	79
Total	**499**	**13**	**399**	**87**	**39**	**(164)**	**538**	**126**
Spain								
Sovereign	324	0	0	324	0	(49)	324	324
Financial institutions	964	12	489	463	2	(40)	966	465
Corporates & other	2,061	8	1,198	855	34	21	2,095	889
Total	**3,349**	**20**	**1,687**	**1,642**	**36**	**(68)**	**3,385**	**1,678**
Total								
Sovereign	3,312	617	93	2,602	38	(331)	3,350	2,640
Financial institutions	4,167	14	1,729	2,424	38	(176)	4,205	2,462
Corporates & other	9,738	102	6,859	2,777	92	(459)	9,830	2,869
Total	**17,217**	**733**	**8,681**	**7,803**	**168**	**(966)**	**17,385**	**7,971**

1 Includes other hedges (derivative instruments), guarantees, insurance and collateral.
2 Represents long inventory positions netted at issuer level.
3 Substantially all of which results from CDS; represents long positions net of short positions.

Board of Directors

General information

Membership and qualifications

The AoA provide that the Board shall consist of a minimum of seven members. The Board currently consists of 12 members. We believe that the size of the Board must be such that the committees can be staffed with qualified members. At the same time, the Board must be small enough to ensure an effective and rapid decision-making process. Board members are elected at the AGM by our shareholders individually for a period of one year and are eligible for re-election. Shareholders will also elect a member of the Board as the Chairman and each of the members of the Compensation Committee for a period of one year. One year of office is understood to be the period of time from one AGM to the close of the next AGM. Members of the Board shall generally retire after having served on the Board for 12 years. Under certain circumstances, the Board may extend the limit of terms of office for a particular Board member for a maximum of three additional years.

An overview of the Board and the committee membership is shown in the following table. The composition of the Boards of the Group and the Bank is identical.

Board composition and succession planning

The Governance and Nominations Committee (formerly Chairman's and Governance Committee) regularly considers the composition of the Board as a whole and in light of staffing requirements for the committees. The Governance and Nominations Committee recruits and evaluates candidates for Board membership based on criteria as set forth by the OGR. The Governance and Nominations Committee may also retain outside consultants with respect to the identification and recruitment of potential new Board members. In assessing candidates, the Governance and Nominations Committee considers the requisite skills and characteristics of Board members as well as the composition of the Board as a whole. Among other considerations, the Governance and Nominations Committee takes into account skills, management experience, independence and diversity in the context of the needs of the Board to fulfill its responsibilities. The Governance and Nominations Committee also considers other activities and commitments of an individual in order to be satisfied that a proposed member of the Board can devote enough time to a Board position at the Group.

→ Refer to "Mandates" for further information.

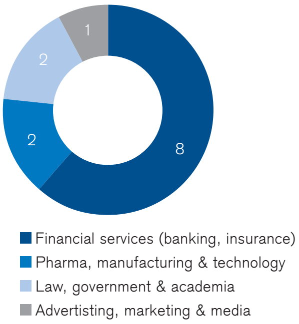
Members of the Board of Directors

	Board member since	Independence	Governance and Nominations Committee	Audit Committee	Compensation Committee	Conduct and Financial Crime Committee [1]	Risk Committee
Elected at 2018 AGM							
Urs Rohner, Chairman	2009	Independent	Chair	–	–	Chair	–
Iris Bohnet	2012	Independent	–	–	Member	–	–
Andreas Gottschling	2017	Independent	Member	Member	–	–	Chair
Alexander Gut	2016	Independent	–	Member	–	–	–
Michael Klein	2018	Independent	–		–	–	Member
Andreas N. Koopmann	2009	Independent	–	–	Member	–	–
Seraina Macia	2015	Independent	–	–	–	–	Member
Kai S. Nargolwala	2013	Independent	Member	–	Chair	Member	–
Ana Paula Pessoa	2018	Independent	–	Member	–	Member	–
Joaquin J. Ribeiro	2016	Independent	–	Member	–	–	–
Severin Schwan, Vice-Chair and Lead Independent Director	2014	Independent	Member	–	–	–	Member
John Tiner	2009	Independent	Member	Chair	–	Member	Member
Alexandre Zeller [2]	2017	Independent	Member	–	Member	Member	–

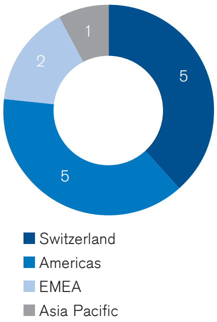
1 Establishment effective as of January 1, 2019.
2 Alexandre Zeller stepped down from the Board as of February 28, 2019.

Board composition[1]

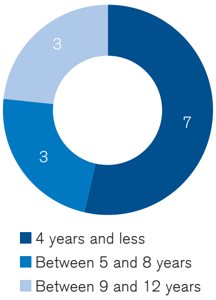
Industry experience



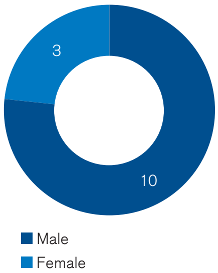
Geographical focus[2]



Length of tenure



Gender diversity



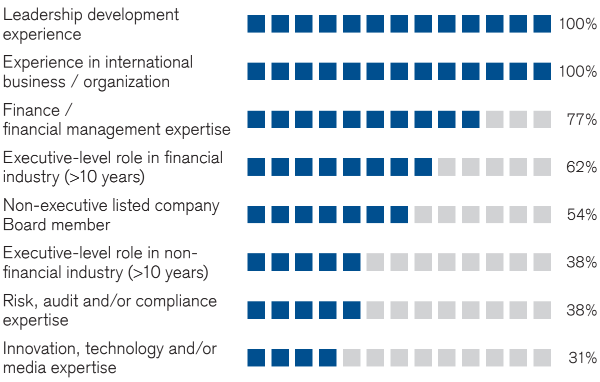
1 As of the end of 2018.
2 Geographical focus represents the region in which the Board member has mostly focused his or her professional activities and may differ from the nationality of that individual.

The background, skills and experience of our Board members are diverse and broad and include holding or having held top management positions at financial services and other companies in Switzerland and abroad, as well as leading positions in government, academia and international organizations. The Board is composed of individuals with wide-ranging professional expertise in key areas including finance and financial management, risk management, audit, innovation and technology, legal, compliance and regulatory affairs, advertising, marketing and media, and human resources and incentive structures. Diversity of culture, experience and opinion are important aspects of Board composition, as well as gender diversity. While the ratio of female-to-male Board members may vary in any given year, the Board is committed to maintaining a good gender balance over the long term. The collective experience and expertise of our Board members as of the end of 2018 across those key areas considered particularly relevant for the Group is illustrated in the following chart.

In areas where the Board's collective experience and expertise may require strengthening, the Board may either decide to nominate a new Board member candidate with specialist expertise, engage outside experts or take other measures. For example, after former Board member and technology expert Sebastian Thrun stepped down from the Board in 2016, the Board established the interdisciplinary Innovation and Technology Committee as an advisory body to further the Group's strategic goals with respect to innovation and technology. Mr. Thrun was retained in an advisory capacity to chair the committee, which includes an external cybersecurity expert and regularly engages internal technology experts.

Board member experience and expertise

(Number and percentage of Board members)



To maintain a high degree of expertise, diversity and independence in the future, the Board has a succession planning process in place to identify potential candidates for the Board at an early stage. With this process, we are well prepared when Board members rotate off the Board. The objectives of the succession planning process are to ensure adequate representation of key Board competencies and a Board composition that is well-suited to address future challenges, while maintaining the stability and professionalism of the Board. Potential candidates are evaluated according to criteria defined to assess the candidates' expertise and experience, which include the following:

- proven track record as an executive with relevant leadership credentials gained in an international business environment in financial services or another industry;
- relevant functional skills and credentials in the key areas listed above;
- understanding of global banking, financial markets and financial regulation;
- broad international experience and global business perspective, with a track record of having operated in multiple geographies;
- ability to bring insight and clarity to complex situations and to both challenge and constructively support management;
- high level of integrity and affinity with the Group's values and corporate culture; and
- willingness to commit sufficient time to prepare for and attend Board and committee meetings.

The evaluation of candidates also considers formal independence and other criteria for Board membership, consistent with legal and regulatory requirements and the Swiss Code of Best Practice for Corporate Governance. Furthermore, we believe that other aspects, including team dynamics and personal reputation of Board members, play a critical role in ensuring the effective functioning of the Board. This is why the Group places the utmost importance on the right mix of personalities who are also fully committed to making their blend of specific skills and experience available to the Board.

While the Board is continually engaged in considering potential candidates throughout the year, succession planning for the next year is typically kicked off at the Board's annual strategy offsite, which is held mid-year. In addition to its discussions of the Group's strategy, the Board holds a dedicated session on corporate governance, at which, among other topics, current Board composition and future needs are discussed, including the needs for suitable Board committee composition. Based on the outcome of these discussions, the interest and availability of certain candidates will be explored further. The Board's discussions will continue at its annual self-assessment session, which usually takes place at year-end, and it will consider specific changes in Board composition to be proposed at the next AGM. The Board will ultimately approve candidates to be nominated as new Board members for election at the AGM at its February or March meetings, shortly before the publication of this report.

New members and continuing training

Any newly appointed member is required to participate in an orientation program to become familiar with our organizational structure, strategic plans, significant financial, accounting and risk issues and other important matters relating to the governance of the Group. The orientation program is designed to take into account the new Board member's individual background and level of experience in each specific area. Moreover, the program's focus is aligned with any committee memberships of the person concerned. Board members are encouraged to engage in continuing training. The Board and the committees of the Board regularly ask specialists within the Group to speak about specific topics in order to enhance the Board members' understanding of issues that already are, or may become, of particular importance to our business.

Meetings

In 2018, the Board held six meetings in person and four additional meetings. In addition, the Board held a two and a half-day strategy session. The members of the Board are encouraged to attend all meetings of the Board and the committees on which they serve.

All members of the Board are expected to spend the necessary time outside of these meetings needed to discharge their responsibilities appropriately. The Chairman calls the meeting with sufficient notice and prepares an agenda for each meeting. However, any other Board member has the right to call an extraordinary meeting, if deemed necessary. The Chairman has the discretion to invite members of management or others to attend the meetings. Generally, the members of the Executive Board attend part of the meetings to ensure effective interaction with the Board. The Board also holds separate private sessions without management present. Minutes are kept of the proceedings and resolutions of the Board.

From time to time, the Board may make certain decisions via circular resolution, unless a member asks that the matter be discussed in a meeting and not decided upon by way of written consent.

Meeting attendance – Board and Board committees

in 2018	Board of Directors [1]	Governance and Nominations Committee [2]	Audit Committee [3]	Compensation Committee [4]	Risk Committee [5]
Total number of meetings held	11	9	18	9	6
Number of members who missed no meetings	12	6	5	2	6
Number of members who missed one meeting	2	0	1	1	1
Number of members who missed two or more meetings	0	1	1	1	0
Meeting attendance, in %	98	93	97	92	97

Meeting attendance is shown for the calendar year 2018, which spans two Board periods. While there were 12 members prior to the 2018 AGM and 13 members thereafter, there were a total of 14 individuals who served as Board members during 2018.

1 The Board consisted of 12 and 13 members at the beginning of the year and the end of the year, respectively, with 2 members joining the Board (Michael Klein and Ana Paula Pessoa) and 1 member leaving the Board (Richard E. Thornburgh).

2 The Governance and Nominations Committee consisted of 6 members at the beginning and at the end of the year, with 1 member joining the committee (Andreas Gottschling) and 1 member leaving the committee (Richard E. Thornburgh).

3 The Audit Committee consisted of 5 members at the beginning and the end of the year, with 2 members joining the committee (Andreas Gottschling and Ana Paula Pessoa) and 2 members leaving the committee (Richard E. Thornburgh and Seraina Macia).

4 The Compensation Committee consisted of four members at the beginning and the end of the year.

5 The Risk Committee consisted of 5 members at the beginning and at the end of the year, with 2 members joining the committee (Seraina Macia and Michael Klein) and 2 members leaving the committee (Richard E. Thornburgh and Andreas N. Koopmann).

Meeting attendance – individual Board members

Attendance (%)	< 75	75–84	85–94	95–100
Board member				
Urs Rohner, Chairman				■
Iris Bohnet			■	
Andreas Gottschling				■
Alexander Gut				■
Michael Klein [1]				■
Andreas N. Koopmann				■
Seraina Macia				■
Kai S. Nargolwala				■
Ana Paula Pessoa [1]			■	
Joaquin J. Robeiro				■
Severin Schwan		■		
John Tiner				■
Alexandre Zeller [2]				■

Includes Board and Committee meeting attendance.

1 Board member as of the 2018 AGM.

2 Alexandre Zeller stepped down from the Board as of February 28, 2019.

Mandates

Our Board members may assume board or executive level or other roles in companies and organizations outside of the Group, which are collectively referred to as mandates. The Compensation Ordinance sets out that companies must include provisions in their articles of association to define the activities that fall within the scope of a mandate and set limits on the number of mandates that board members and executive management may hold. According to the Group's AoA, mandates include activities in the most senior executive and management bodies of listed companies and all other legal entities that are obliged to obtain an entry in the Swiss commercial register or a corresponding foreign register.

The limitations on mandates assumed by Board members outside of the Group are summarized in the table below.

Type of mandate and limitation – Board

Type of mandate	Limitation
Listed companies	No more than four other mandates
Other legal entities [1]	No more than five mandates
Legal entities on behalf of the Group [2]	No more than ten mandates
Charitable legal entities [3]	No more than ten mandates

1 Includes private non-listed companies.

2 Includes memberships in business and industry associations.

3 Also includes honorary mandates in cultural or educational organizations.

No Board member holds mandates in excess of these restrictions. The restrictions shown above do not apply to mandates of Board members in legal entities controlled by the Group such as subsidiary boards.

→ Refer to "Audit Committee" in Board committees for further information on limits on Audit Committee service.

Independence

The Board consists solely of non-executive directors within the Group, of which at least the majority must be determined to be independent. In its independence determination, the Board takes into account the factors set forth in the OGR, the committee charters and applicable laws and listing standards. Our independence standards are also periodically measured against other emerging best practice standards.

The Governance and Nominations Committee performs an annual assessment of the independence of each Board member and reports its findings to the Board for the final determination of independence of each individual member. The Board has applied the independence criteria of the SIX Exchange Directive on Information relating to Corporate Governance, FINMA, the Swiss Code of Best Practice for Corporate Governance and the rules of the NYSE and the Nasdaq Stock Market (Nasdaq) in determining the definition of independence.

Independence criteria applicable to all Board members

In general, a director is considered independent if the director:

- is not, and has not been for the prior three years, employed as an executive officer or in another function at the Group or any of its subsidiaries;
- is not, and has not been for the prior three years, an employee or affiliate of our external auditor; and
- does not maintain a material direct or indirect business relationship with the Group or any of its subsidiaries.

Whether or not a relationship between the Group or any of its subsidiaries and a member of the Board is considered material depends in particular on the following factors:

- the volume and size of any transactions concluded in relation to the financial status and credit standing of the Board member concerned or the organization in which he or she is a partner, significant shareholder or executive officer;
- the terms and conditions applied to such transactions in comparison to those applied to transactions with counterparties of a similar credit standing;
- whether the transactions are subject to the same internal approval processes and procedures as transactions that are concluded with other counterparties;
- whether the transactions are performed in the ordinary course of business; and
- whether the transactions are structured in such a way and on such terms and conditions that the transaction could be concluded with a third party on comparable terms and conditions.

Moreover, a Board member is not considered independent if the Board member is, or has been at any time during the prior three years, part of an interlocking directorate in which a member of the Executive Board serves on the compensation committee of another company that employs the Board member. Significant shareholder status is generally also not considered a criterion for independence unless the shareholding exceeds 10% of the Group's share capital or in instances where the shareholder may otherwise influence the Group in a significant manner. Board members with immediate family members who would not qualify as independent are also not considered independent.

Specific independence considerations

Board members serving on the Audit Committee are subject to independence requirements in addition to those required of other Board members. None of the Audit Committee members may be an affiliated person of the Group or may, directly or indirectly, accept any consulting, advisory or other compensatory fees from us other than their regular compensation as members of the Board and its committees.

For Board members serving on the Compensation Committee, the independence determination considers all factors relevant to determining whether a director has a relationship with the Group that is material to that director's ability to be independent from management in connection with the duties of a Compensation Committee member, including, but not limited to:

- the source of any compensation of the Compensation Committee member, including any consulting, advisory or other compensatory fees paid by the Group to such director; and
- whether the Compensation Committee member is affiliated with the Group, any of its subsidiaries or any affiliates of any of its subsidiaries.

Other independence standards

While the Group is not subject to such standards, the Board acknowledges that some proxy advisors apply different standards for assessing the independence of our Board members, including the length of tenure a Board member has served, the full-time status of a Board Member, annual compensation levels of Board members within a comparable range to executive pay or a Board member's former executive status for periods further back than the preceding three years.

Independence determination

As of December 31, 2018, all members of the Board were determined by the Board to be independent.

Board leadership

Chairman of the Board

The Chairman is a non-executive member of the Board, in accordance with Swiss banking law, and performs his role on a full-time basis, in line with the practice expected by FINMA, our main regulator. The Chairman:

- coordinates the work within the Board;
- works with the committee chairmen to coordinate the tasks of the committees;
- ensures that the Board members are provided with the information relevant for performing their duties;
- drives the Board agenda;
- drives key Board topics, especially regarding the strategic development of the Group, succession planning, the structure and organization of the Group, corporate governance, as well as compensation and compensation structure, including the performance evaluation and compensation of the CEO and the Executive Board;
- chairs the Board, the Governance and Nominations Committee, the Conduct and Financial Crime Control Committee and the Shareholder Meetings;
- takes an active role in representing the Group to key shareholders, investors, regulators and supervisors, industry associations and other external stakeholders;
- has no executive function within the Group;
- with the exception of the Governance and Nominations Committee and the Conduct and Financial Crime Control Committee, is not a member of any of the other Board standing committees; and
- may attend all or parts of selected committee meetings as a guest without voting power.

Vice-Chair
The Vice-Chair:
- is a member of the Board;
- is a designated deputy to the Chairman; and
- assists the Chairman by providing support and advice to the Chairman, assuming the Chairman's role in the event of the Chairman's absence or indisposition and leading the Board accordingly.

There may be one or more Vice-Chairs. Severin Schwan currently serves as Vice-Chair.

Lead Independent Director
According to the Group's OGR, the Board may appoint a Lead Independent Director. If the Chairman is determined not to be independent by the Board, the Board must appoint a Lead Independent Director. The Lead Independent Director:
- may convene meetings without the Chairman being present;
- takes a leading role among the Board members, particularly when issues between a non-independent Chairman and the independent Board members arise (for example, when the non-independent Chairman has a conflict of interest);
- leads the Board's annual assessment of the Chairman; and
- ensures that the work of the Board and Board-related processes continue to run smoothly.

Severin Schwan currently also serves as the Lead Independent Director.

Segregation of duties
In accordance with Swiss banking law, the Group operates under a dual board structure, which strictly segregates the duties of supervision, which are the responsibility of the Board, from the duties of management, which are the responsibility of the Executive Board. The roles of the Chairman (non-executive) and the CEO (executive) are separate and carried out by two different people.

Board responsibilities
In accordance with the OGR, the Board delegates certain tasks to Board committees and delegates the management of the company and the preparation and implementation of Board resolutions to certain management bodies or executive officers to the extent permitted by law, in particular Article 716a and 716b of the Swiss Code of Obligations, and the AoA.

With responsibility for the overall direction, supervision and control of the company, the Board:
- regularly assesses our competitive position and approves our strategic and financial plans and risk appetite statement and overall risk limits;
- receives a status report at each ordinary meeting on our financial results, capital, funding and liquidity situation;
- receives, on a monthly basis, management information packages, which provide detailed information on our performance and financial status, as well as quarterly risk reports outlining recent developments and outlook scenarios;
- is provided by management with regular updates on key issues and significant events, as deemed appropriate or requested;
- has access to all information concerning the Group in order to appropriately discharge its responsibilities;
- reviews and approves significant changes in our structure and organization;
- approves the annual variable compensation pools for the Group and the divisions and recommends total compensation of the Board and Executive Board for shareholder approval at the AGM;
- provides oversight on significant projects including acquisitions, divestitures, investments and other major projects; and
- along with its committees, is entitled, without consulting with management and at the Group's expense, to engage external legal, financial or other advisors, as it deems appropriate, with respect to any matters within its authority.

Governance of Group subsidiaries
The Board assumes oversight responsibility for establishing appropriate governance for Group subsidiaries. The governance of the Group is based on the principles of an integrated oversight and management structure with global scope, which enables management of the Group as one economic unit. The Group sets corporate governance standards to ensure the efficient and harmonized steering of the Group. In accordance with the OGR, the Board appoints or dismisses the chairperson and the members of the board of directors of the major subsidiaries of the Group and approves their compensation. A policy naming the subsidiaries in scope and providing guidelines for the nomination and compensation process is periodically reviewed by the Board. The governance of the major subsidiaries, subject to compliance with all applicable local laws and regulations, should be consistent with the corporate governance principles of the Group, as reflected in the OGR and other corporate governance documents. In order to facilitate consistency and alignment of Group and subsidiary governance, it is the Group's policy for the Board to appoint at least one Group director to each of the boards of its major subsidiaries. Directors and officers of the Group and its major subsidiaries are committed to ensuring transparency and collaboration throughout the Group.

Board evaluation

The Board performs a self-assessment once a year, where it reviews its own performance against the responsibilities listed in its charter and the Board's objectives and determines future objectives, including any special focus objectives for the coming year. The Chairman does not participate in the discussion of his own performance. As part of the self-assessment, the Board evaluates its effectiveness with respect to a number of different aspects, including board structure and composition, communication and reporting, agenda setting and continuous improvement. From time to time, the Board may also mandate an external advisor to facilitate the evaluation process. The Board last mandated an external firm to perform a board effectiveness evaluation toward the end of 2016, which included a comprehensive review of Board processes and documentation, interviews by the external assessor with the Chairman and the individual Board members and the participation of the external assessor as an observer in Board and Board committee meetings. The results were presented to the Board in 2017 and the Board continued to monitor progress on the various recommendations made from the external evaluation during 2018. The Board agreed to target performing an external board effectiveness evaluation every three years.

Board changes

At the 2018 AGM, Michael Klein and Ana Paula Pessoa were elected as new members of the Board. Richard E. Thornburgh stepped down from the Board. The Board proposes Christian Gellerstad, former CEO of Pictet Wealth Management, and Shan Li, CEO of Silk Road Finance Corporation Limited, for election as new non-executive Board members at the AGM on April 26, 2019. Andreas Koopmann will not stand for re-election and Alexandre Zeller stepped down from the Board with effect from February 28, 2019. The Board proposes that all other current members of the Board be re-elected to the Board, proposes the re-election of Urs Rohner as Chairman and proposes Iris Bohnet, Christian Gellerstad, Kai S. Nargolwala and Michael Klein as members of the Compensation Committee.

Board – 2018 activities

During 2018, the Board focused on a number of key areas, including but not limited to the activities described below. Specifically, the Board:

- continued to closely supervise the Group's strategy implementation in the final year of the three-year restructuring program, with particular focus in 2018 on achieving profitability targets, execution of the cost savings program and the successful wind-down of the Strategic Resolution Unit by year-end 2018;
- held its annual strategy workshop with the Executive Board to assess the strategic ambitions of each of the business divisions for 2019 and beyond;
- conducted strategic business reviews, including a review of our Asia Pacific Wealth Management & Connected business and opportunities for increasing the collaboration between our investment banking and wealth management businesses;
- closely monitored progress of the Group's strategic EU program in an effort to ensure a smooth transition of all impacted business areas in anticipation of the UK's expected withdrawal from the EU in 2019;
- reviewed and approved the Group's key financial targets for 2019 and the launch of a share buyback program, as announced at the 2018 Investor Day;
- approved the establishment of a new Board committee, the Conduct and Financial Crime Control Committee, which will further focus the Board's ongoing oversight of the effectiveness of the Group's financial crime compliance programs;
- continued to monitor progress on management's implementation of the global Conduct and Ethics program, including enhanced oversight activities of the Conduct and Ethics Board (CEB), extensive employee engagement sessions and the development of a Group-wide Conduct and Ethics measurement dashboard;
- held a comprehensive session on the Group's talent management strategy, including key initiatives within the areas of recruitment, training and diversity and inclusion;
- reviewed and approved variable compensation for the 2017 financial year for the Group and for the Executive Board; recommended the proposals for Executive Board compensation to the 2018 AGM for approval;
- continued to focus on corporate governance at the Group's major subsidiaries and held the third annual board leadership event, involving board members of the Group and each of the major subsidiaries;
- reviewed and approved the Group's risk appetite for 2019 and the risk management framework, following an assessment by the Risk Committee;
- took the decision in December 2018 to propose PricewaterhouseCoopers AG as the new statutory auditor at the 2020 AGM, following a comprehensive evaluation process during 2018 led by the Audit Committee;
- conducted an in-depth session on the scope and key elements of the Group's cybersecurity programs, the evolving technology risk landscape and an assessment of the Group's protection, detection and response capabilities; and
- maintained Board-level focus on innovation and technology through the Board's advisory Innovation and Technology Committee, including receiving updates from internal and external technology experts regarding emerging trends.

Board committees

The Board has five standing committees: the Governance and Nominations Committee, the Audit Committee, the Compensation Committee, the Risk Committee and the Conduct and Financial Crime Control Committee, which became effective in 2019. In addition, the Board retains an advisory committee, the Innovation and Technology Committee. Except for the Compensation Committee members, who are elected by the shareholders on an annual basis, the committee members are appointed by the Board for a term of one year.

At each Board meeting, the Chairs of the committees report to the Board about the activities of the respective committees. In addition, the minutes and documentation of the committee meetings are accessible to all Board members.

Each committee has its own charter, which has been approved by the Board. Each standing committee performs a self-assessment once a year, where it reviews its own performance against the responsibilities listed in its charter and the committee's objectives and determines any special focus objectives for the coming year.

Governance and Nominations Committee

The Governance and Nominations Committee consists of the Chairman, the Vice-Chair and the Chairs of the committees of the Board and other members appointed by the Board. It may include non-independent Board members. Our Governance and Nominations Committee currently consists of five members, following Alexandre Zeller's departure from the Board as of February 28, 2019. All of our Governance and Nominations Committee members are independent.

The Governance and Nominations Committee generally meets on a monthly basis and the meetings are usually attended by the CEO. It may also ask other members of management or specialists to attend a meeting.

As part of its main duties and responsibilities, the Governance and Nominations Committee:
- acts as counselor to the Chairman and supports him in the preparation of the Board meetings;
- addresses the corporate governance issues affecting the Group and develops and recommends to the Board corporate governance principles and such other corporate governance-related documents as it deems appropriate for the Group;
- reviews the independence of the Board members annually and recommends its assessment to the Board for final determination;
- is responsible for setting selection criteria for Board membership, which shall reflect the requirements of applicable laws and regulations, and identifying, evaluating and nominating candidates for Board membership;
- guides the Board's annual performance assessment of the Chairman, the CEO and the members of the Executive Board;
- proposes to the Board the appointment, replacement or dismissal of members of the Executive Board as well as other appointments requiring endorsement by the Board; and
- reviews succession plans with the Chairman and the CEO relating to Executive Board positions and keeps informed on other top management succession plans.

Governance and Nominations Committee – 2018 activities

During 2018, the Governance and Nominations Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Governance and Nominations Committee:
- received regular updates from and continued to support the CEO on the execution of the Group's three-year strategic restructuring plan announced in October 2015;
- supported the Chairman in planning for the Board's annual strategy workshop in 2018, which was focused on defining the Group's strategic priorities following completion of the restructuring at the end of 2018;
- assessed potential new Board member candidates during 2018 and recommended that Christian Gellerstad and Shan Li be proposed as new Board members for election at the 2019 AGM;
- advised on the set-up of the new Conduct and Financial Crime Control Committee;
- reviewed and endorsed board succession plans for our major subsidiary boards, including the appointments of new non-executive chairs of our major US and UK subsidiaries;
- provided guidance for the annual performance assessments of the Chairman and the CEO; and
- prepared the annual independence assessment of the Board members and recommended its approval by the Board.

Audit Committee
The Audit Committee consists of at least three members, all of whom must be independent. The Chair of the Risk Committee is generally appointed as one of the members of the Audit Committee. Our Audit Committee currently consists of five members, all of whom are independent.

The Audit Committee charter stipulates that all Audit Committee members must be financially literate. In addition, they may not serve on the Audit Committee of more than two other companies, unless the Board deems that such membership would not impair their ability to serve on our Audit Committee.

Furthermore, the US Securities and Exchange Commission (SEC) requires disclosure about whether a member of the Audit Committee is an audit committee financial expert within the meaning of SOX. The Board has determined that John Tiner is an audit committee financial expert.

Pursuant to its charter, the Audit Committee holds meetings at least once each quarter, prior to the publication of our consolidated financial statements. Typically, the Audit Committee convenes for a number of additional meetings and workshops throughout the year. The meetings are attended by management representatives, as appropriate, the Head of Internal Audit and senior representatives of the external auditor. A private session with Internal Audit and the external auditors is regularly scheduled to provide them with an opportunity to discuss issues with the Audit Committee without management being present. The Head of Internal Audit reports directly to the Audit Committee Chair.

As part of its main duties and responsibilities, the Audit Committee:
- monitors and assesses the overall integrity of the financial statements as well as disclosures of the financial condition, results of operations and cash flows;
- monitors the adequacy of the financial accounting and reporting processes and the effectiveness of internal controls over financial reporting;
- monitors processes designed to ensure compliance by the Group in all significant respects with legal and regulatory requirements, including disclosure controls and procedures;
- monitors the adequacy of the management of operational risks jointly with the Risk Committee, including the assessment of the effectiveness of internal controls that go beyond the area of financial reporting;
- monitors the adequacy of the management of reputational risks, jointly with the Risk Committee; and
- monitors the qualifications, independence and performance of the external auditors and of Internal Audit.

The Audit Committee is regularly informed about significant projects and initiatives aimed at further improving processes and receives regular updates on significant legal, compliance, disciplinary, tax and regulatory matters. Furthermore, the Audit Committee has established procedures for the receipt, retention and treatment of complaints of a significant nature regarding accounting, internal accounting controls, auditing or other matters alleging potential misconduct, including a whistleblower hotline to provide the option to report complaints on a confidential, anonymous basis.

Audit Committee – 2018 activities

During 2018, the Audit Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Audit Committee:
- performed its regular review of the quarterly and annual financial results and related accounting, reporting and internal control matters;
- held specific reviews on certain accounting and reporting matters of particular relevance in 2018, such as Group tax matters, including the assessment of the US base erosion and anti-abuse tax;
- maintained a focus on compliance topics through briefings at every regular meeting by the Chief Compliance and Regulatory Affairs Officer at the time on key compliance risks and associated internal controls;
- conducted a comprehensive session on the Group's anti-money laundering compliance framework and related processes and controls;
- reviewed the Group's whistleblowing processes and governance, as well as select cases and their resolution;
- conducted a comprehensive review of the Group's External Asset Manager business and the related risk management framework;
- continued to monitor the Strategic Resolution Unit, with a particular focus on its wind-down and the subsequent transfer of the residual portfolio to the newly established ARU, separately disclosed within the Group's Corporate Center;
- reviewed, jointly with the Risk Committee, the governance, compliance and control framework at smaller business locations;
- reviewed, jointly with the Risk Committee, the Group's data management framework and related commitments made to regulators;
- received regular updates by the Head of Internal Audit on key audit findings and held a dedicated workshop with the Internal Audit senior leadership team about their risk assessments for the organization and emerging risk and control themes;
- led the tender of the Group audit mandate and recommended to the Board that PricewaterhouseCoopers AG be proposed as the new statutory auditor at the 2020 AGM.

Internal Audit

Our Internal Audit function comprises a team of around 350 professionals, substantially all of whom are directly involved in auditing activities. The Head of Internal Audit reports directly to the Audit Committee Chair and the Audit Committee oversees the activities of the Internal Audit function.

Internal Audit performs an independent and objective assurance function that is designed to add value to our operations. Using a systematic and disciplined approach, the Internal Audit team evaluates and enhances the effectiveness of our risk management, control and governance processes.

Internal Audit is responsible for carrying out periodic audits in line with the Charter for Internal Audit approved by the Audit Committee. It regularly and independently assesses the risk exposure of our various business activities, taking into account industry trends, strategic and organizational decisions, best practice and regulatory matters. Based on the results of its assessment, Internal Audit develops detailed annual audit objectives, defining key risk themes and specifying resource requirements for approval by the Audit Committee.

As part of its efforts to achieve best practice, Internal Audit regularly benchmarks its methods and tools against those of its peers. In addition, it submits periodic internal reports and summaries thereof to the management teams as well as the Chairman and the Audit Committee Chair. The Head of Internal Audit reports to the Audit Committee at least quarterly and more frequently as appropriate. Internal Audit coordinates its operations with the activities of the external auditor for maximum effect.

The Audit Committee annually assesses the performance and effectiveness of the Internal Audit function. For 2018, the Audit Committee concluded that the Internal Audit function was effective.

External Audit

The Audit Committee is responsible for the oversight of the external auditor. The external auditor reports directly to the Audit Committee and the Board with respect to its audit of the Group's financial statements and is ultimately accountable to the shareholders. The Audit Committee pre-approves the retention of, and fees paid to, the external auditor for all audit and non-audit services.

→ Refer to "External audit" in Additional information for further information.

External Auditor rotation

A tender of the Group audit mandate was conducted in the second half of 2018. All critical aspects of the tender, including the selection of audit firms to invite, the nature and extent of information sharing with the participating firms, as well as the evaluation criteria and process, were determined by the Audit Committee at the outset of the tender and subject to Audit Committee oversight during execution.

In advance of the tender, a review was undertaken by the Audit Committee to ensure impartiality among all individuals who would be involved in the process. As a precaution, one member of the Audit Committee was recused from participating in all aspects of the tender due to a potential conflict of interest.

A structured approach to evaluating the participating firms' proposals was followed using a robust and objective set of assessment criteria that was shared with participating audit firms at the outset of the tendering process to provide transparency over how they would be evaluated.

At the conclusion of its evaluation, the Audit Committee recommended to the Board of Directors, and the Board of Directors approved, that PricewaterhouseCoopers be proposed as the new statutory auditor to the AGM in April 2020. The appointment is proposed to be effective for the fiscal year ending December 31, 2020 and is subject to shareholder approval.

Compensation Committee

The Compensation Committee consists of at least three members of the Board, all of whom must be independent. Our Compensation Committee currently consists of three members following Alexandre Zeller's departure from the Board as of February 28, 2019, and will again consist of four members, subject to the election of the proposed Compensation Committee members at the 2019 AGM. All of our Compensation Committee members are independent.

Pursuant to its charter, the Compensation Committee holds at least four meetings per year. Additional meetings may be scheduled at any time. The meetings are attended by management representatives, as appropriate.

As part of its main duties and responsibilities, the Compensation Committee:

- reviews the Group's compensation policy;
- establishes new compensation plans or amending existing plans and recommends them to the Board for approval;
- reviews the performance of the Group and the divisions and recommends the variable compensation pools for the Group and the divisions to the Board for approval;
- proposes individual compensation for the Board members to the Board;
- discusses and recommends to the Board a proposal for the CEO's compensation;
- discusses and recommends to the Board the Executive Board members' compensation based on proposals by the CEO; and
- reviews and recommends to the Board the compensation for individuals being considered for an Executive Board position.

In accordance with the Compensation Ordinance, all compensation proposals for members of the Board and the Executive Board are subject to AGM approval.

The Compensation Committee is authorized to retain outside advisors, at the Group's expense, for the purpose of providing guidance to the Compensation Committee as it carries out its responsibilities. Prior to their appointment, the Compensation Committee conducts an independence assessment of the advisors pursuant to the rules of the SEC and the listing standards of the NYSE and Nasdaq.

→ Refer to "The Compensation Committee" in V – Compensation – Compensation governance for information on our compensation approach, principles and objectives and outside advisors.

Compensation Committee – 2018 activities

During 2018, the Compensation Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Compensation Committee:

- continued to engage extensively with shareholders on compensation, including holding numerous meetings with shareholders involving the Chairman, the Compensation Committee Chair and the Chief Human Resources Officer at the time; feedback and key issues resulting from these meetings were addressed regularly by the full committee;
- reviewed and approved the Executive Board compensation design for 2019, which remained consistent with the 2018 compensation design, and recommended the performance metrics and targets for the 2019 STI and LTI awards, reflecting the Group's strategy and financial goals for 2019;
- conducted the annual review of the Group's compensation framework and determined that it remains fit for purpose and aligned with our compensation objectives overall;
- assessed the Group's performance and determined the variable compensation pools for 2018, taking into account the input from the Group's risk and control functions, including the Conduct and Ethics boards;
- previewed the proposed variable compensation amounts for specific groups of employees, in line with regulatory guidance and the Group's compensation policy, including any disciplinary issues and/or points of positive recognition;
- received and assessed periodic reports on industry and regulatory developments, including executive pay trends, competitor practices and key corporate governance developments and regulatory themes with implications for compensation; and
- reviewed and approved the 2018 edition of the Group's Compensation Policy and Implementation Standards and continued to focus on ensuring comprehensive and transparent disclosure in the Group's compensation report.

Risk Committee

The Risk Committee consists of at least three members. It may include non-independent members. The Chair of the Audit Committee is generally appointed as one of the members of the Risk Committee. Our Risk Committee currently consists of five members, all of whom are independent.

Pursuant to its charter, the Risk Committee holds at least four meetings a year. In addition, the Risk Committee usually convenes for additional meetings throughout the year in order to appropriately discharge its responsibilities. The meetings are attended by management representatives, as appropriate.

The Risk Committee is responsible for assisting the Board in fulfilling its oversight responsibilities by periodically reviewing the Group's risk management function, its resources and key risks.

As part of its main duties and responsibilities, the Risk Committee:

- reviews and assesses the integrity and adequacy of the risk management function of the Group;
- reviews and calibrates risk appetite at the Group level and at the level of key businesses, considering capital, liquidity, funding, credit, market, climate and, jointly with the Audit Committee, operational and reputational risk;
- reviews and calibrates major risk concentrations;
- reviews and assesses, jointly with the Audit Committee, the status of major infrastructure and committed change programs;
- reviews and assesses, jointly with the Audit Committee, the internal control environment of the Group, including business continuity management, the enterprise risk and control framework and the firm-wide risk management framework as well as the control functions' input into remuneration; and
- reviews the Group's policy in respect of corporate responsibility and sustainable development.

The Risk Committee is regularly informed about the risk profile of the Group, including major risk topics and key initiatives aimed at responding to regulatory change and further improving risk management across the Group.

The Risk Committee furthermore looks to ensure that key risk developments are addressed appropriately, such as the evolving cyber risk landscape. Senior management, including the Board and its Risk Committee, is actively engaged and regularly informed on the extent of the threats and mitigations in place to manage cyber incidents. Related business continuity and response plans are rehearsed regularly at all levels, up to and including the Executive Board. Significant incidents are escalated to the Risk Committee together with lessons learned and mitigation plans.

Risk Committee – 2018 activities

During 2018, the Risk Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Risk Committee:

- maintained its focus on supporting the Board in reviewing strategically important topics, including adequacy of capital, liquidity and funding and the allocation of capital to Group businesses and major legal entities;
- received regular updates on key change programs in line with regulatory expectations including the Basel Committee on Banking Supervision 239 principles for effective risk data aggregation and risk reporting;
- reviewed and endorsed the 2019 risk appetite framework, including the risk appetite statement for the Group, based on an integrated risk and financial planning process;
- oversaw the Group's responses to key risk developments, including sanctions, reputational risks and various country risks;
- monitored aspects of the Group's risk management framework, for example, with respect to liquidity risk, stress testing and the control framework;
- conducted focused credit risk reviews for a number of risk concentrations, including key lending businesses, collateral concentrations and unsecured exposures;
- regularly monitored the risk profile and risk appetite for various businesses, including our commodity trade finance, asset management and income producing real estate businesses;
- monitored the migration of certain business activities between Group entities with a focus on capital and risk management;
- reviewed, jointly with the Audit Committee, risks related to customer risk, data management and conduct risk; and
- reviewed the Group's policy and position with respect to reputational risk and sustainability, with particular focus on changes made to our reputational risk framework and policy in 2018, reputational risk assessments conducted in the divisions and international policy developments in the area of sustainability, such as in connection with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures and our sustainability risk review process.

Conduct and Financial Crime Control Committee

In 2018, the Board decided to establish the Conduct and Financial Crime Control Committee, which became effective in 2019, reflecting the Group's priority to rigorously address financial crime risk and ensure that the highest standards of conduct and vigilance are maintained throughout the Group. The Conduct and Financial Crime Control Committee consists of at least three members. It may include non-independent members. The Chair of the Audit Committee is generally appointed as one of the members of the Conduct and Financial Crime Control Committee. The Conduct and Financial Crime Control Committee currently consists of five members, all of whom are independent.

Pursuant to its charter, the Conduct and Financial Crime Control Committee holds at least four meetings a year. The Conduct and Financial Crime Control Committee may convene for additional meetings throughout the year in order to appropriately discharge its responsibilities. The meetings are attended by management representatives and representatives of Internal Audit and the Group's external auditors, as appropriate.

The Conduct and Financial Crime Control Committee assists the Board in fulfilling its oversight duties with respect to the Group's exposure to financial crime risk. It is tasked with monitoring and assessing the effectiveness of financial crime compliance programs and initiatives focused on improving conduct and vigilance within the context of combatting financial crime.

As part of its main duties and responsibilities, the Conduct and Financial Crime Control Committee:

- reviews and assesses the Group's overall compliance framework for addressing financial crime risk, including policies, procedures and organizational set-up;
- monitors and assesses the effectiveness of financial crime compliance programs, including those with respect to the following areas: anti-money laundering, client identification and know-your-client procedures, client on and off boarding, politically exposed persons, economic and trade sanctions, anti-bribery, anti-corruption and client tax compliance;
- reviews the status of the relevant policies and procedures and the implementation of significant initiatives focused on improving conduct and vigilance within the context of combatting financial crime, including employee awareness and training programs;
- reviews and monitors investigations into allegations of financial crime or other reports of misconduct pertaining to the areas specified above;
- provides input, as relevant and appropriate, for the Group's compensation process with respect to financial crime compliance and related conduct matters; and
- reviews jointly with the Audit Committee and/or Risk Committee any matters for which a joint review is determined to be appropriate, including the annual compliance risk assessment and the Group's framework for addressing conduct risk.

The Conduct and Financial Crime Control Committee is regularly updated by management and, as appropriate, by external experts, on regulatory, legislative and industry specific developments with respect to financial crime compliance.

The responsibilities assumed by the new Conduct and Financial Crime Control Committee were previously performed by the Audit Committee in the context of its oversight role over significant compliance matters.

Innovation and Technology Committee

The Board established an Innovation and Technology Committee as an interdisciplinary advisory group in 2015. The group acts as a senior platform to discuss internal progress in relation to innovation and technology initiatives, as well as relevant industry-wide technology trends. The Innovation and Technology Committee is chaired by former Group Board member Sebastian Thrun in his role as senior advisor. Participants in the Innovation and Technology Committee include Board members, members of management, internal technology experts and a senior cybersecurity advisor. In 2018, the Innovation and Technology Committee held three meetings. Committee activities included a review of selected innovation projects in the area of online banking and the digital transformation within our compliance function and an assessment of the Group's cyber and information security-related operations and future outlook, which supplemented a cybersecurity review performed by the Board earlier in the year. The committee was regularly briefed about the activities and progress of Credit Suisse Labs, a business wholly owned and operated by Credit Suisse, which focuses on the development of new business and technology concepts, products and platforms for use by Credit Suisse and potentially the broader banking industry. The committee also received updates on emerging technology and cybersecurity trends.

Biographies of the Board members

Urs Rohner
Born 1959
Swiss Citizen
Board member since 2009

Chairman of the Board

Professional history

2004–present	Credit Suisse
	Chairman of the Board and the Governance and Nominations Committee (2011–present)
	Chair of the Conduct and Financial Crime Control Committee (2019–present)
	Member of the Innovation and Technology Committee (2015–present)
	Member of the board of Credit Suisse (Schweiz) AG (Swiss subsidiary) (2015–present)
	Vice-Chair of the Board and member of the Governance and Nominations Committee (2009–2011)
	Member of the Risk Committee (2009–2011)
	Chief Operating Officer (2006–2009)
	General Counsel (2004–2009)
	Member of the Executive Board (2004–2009)
2000–2004	ProSiebenSat.1 Media AG, Chairman of the Executive Board and CEO
1983–1999	Lenz & Staehelin
	Partner (1992–1999)
	Attorney (1983–1988; 1990–1992)
1988–1989	Sullivan & Cromwell LLP, New York, attorney

Education

1990	Admission to the bar of the State of New York
1986	Admission to the bar of the Canton of Zurich
1983	Master in Law (lic.iur.), University of Zurich, Switzerland

Other activities and functions

GlaxoSmithKline plc, board member
Swiss Bankers Association, vice-chairman[1]
Swiss Finance Council, board member[1]
Institute of International Finance, board member[1]
European Banking Group, member[1]
European Financial Services Roundtable, member[1]
University of Zurich Department of Economics, chairman of the advisory board
Lucerne Festival, board of trustees member

1 Mr. Rohner performs functions in these organizations in his capacity as Chairman of the Group.

Iris Bohnet
Born 1966
Swiss Citizen
Board member since 2012

Professional history

2012–present	Credit Suisse
	Member of the Compensation Committee (2012–present)
	Member of the Innovation and Technology Committee (2015–present)
1998–present	Harvard Kennedy School
	Academic Dean (2018–present, 2010–2014)
	Albert Pratt Professor of Business and Government (2018–present)
	Director of the Women and Public Policy Program (2008–present)
	Professor of public policy (2006–2018)
	Associate professor of public policy (2003–2006)
	Assistant professor of public policy (1998–2003)
1997–1998	Haas School of Business, University of California at Berkeley, visiting scholar

Education

1997	Doctorate in Economics, University of Zurich, Switzerland
1992	Master's degree in Economic History, Economics and Political Science, University of Zurich, Switzerland

Other activities and functions

Applied, board member
Economic Dividends for Gender Equality (EDGE), advisory board member
We share tech, advisory board member
Women in Banking and Finance, patron
UK Government's Equalities Office/BIT, advisor
Take The Lead Women, advisor
genEquality, advisor

Andreas Gottschling
Born 1967
German Citizen
Board member since 2017

Professional history

2017–present	Credit Suisse
	Chair of the Risk Committee (2018–present)
	Member of the Governance and Nominations Committee (2018–present)
	Member of the Audit Committee (2018–present)
	Member of the Risk Committee (2017–present)
	Member of the board of Credit Suisse International and Credit Suisse Securities (Europe) Limited (UK subsidiaries) (2018–present)
2013–2016	Erste Group Bank, Vienna, Chief Risk Officer and Member of the Management Board
2012–2013	McKinsey and Company, Zurich, Senior Advisor Risk Practice
2005–2012	Deutsche Bank, London, Frankfurt and Zurich
	Member of the Risk Executive Committee & Divisional Board (2005–2012)
	Global Head Operational Risk (2006-2010)
2003–2005	LGT Capital Management, Switzerland, Head of Quant Research
2000–2003	Euroquants, Germany, Consultant
1997–2000	Deutsche Bank, Frankfurt, Head of Quantitative Analysis

Education

1997	Doctorate in Economics, University of California, San Diego, USA
1991	Postgraduate Studies in Physics, Mathematics and Economics, Harvard University, Cambridge, US
1990	Degrees in Mathematics and Economics, University of Freiburg, Germany

Other activities and functions

Mr. Gottschling currently does not hold directorships in other organizations.

Alexander Gut
Born 1963
Swiss and British Citizen
Board member since 2016

Professional history

2016–present	Credit Suisse
	Member of the Audit Committee (2016–present)
	Member of the Innovation and Technology Committee (2017–present)
	Member of the board of Credit Suisse (Schweiz) AG (Swiss subsidiary) (2016–present)
2007–present	Gut Corporate Finance AG, managing partner
2003–2007	KPMG Switzerland
	Member of the Executive Committee, Switzerland (2005–2007)
	Partner and Head of Audit Financial Services, Switzerland (2004–2007) and region Zurich (2003–2004)
2001–2003	Ernst & Young, partner of the Transaction Advisory Services practice
1991–2001	KPMG Switzerland
	Senior Manager, Audit Financial Services
	Senior Manager, Banking Audit
	Banking auditor

Education

1996	Swiss Certified Accountant, Swiss Institute of Certified Accountants and Tax Consultants
1995	Doctorate in Business Administration, University of Zurich
1990	Masters degree in Business Administration, University of Zurich

Other activities and functions

Adecco Group Ltd., board member and chairman of the governance and nomination committee

SIHAG Swiss Industrial Holding Ltd, board member

Michael Klein
Born 1963
US Citizen
Board member since 2018

Professional history

2018–present	Credit Suisse
	Member of the Risk Committee (2018–present)
2010–present	M Klein & Company, Managing Partner
1985–2008	Citigroup
	Vice Chairman
	Chairman Institutional Clients Group
	Chairman & Co-CEO Markets & Banking
	Co-President Markets & Banking
	CEO, Global Banking
	CEO Markets and Banking EMEA
	Various senior management positions

Education

1985	Bachelors of Science in Economics (Finance and Accounting), The Wharton School, University of Pennsylvania

Other activities and functions

Churchill Capital Corporation, co-founder and chairman of the board
TBG Limited, member of the board
Akbank, member of the international advisory board
Harvard Global Advisory Council, member
Peterson Institute for International Economics, board member
The World Food Programme, investment advisory board member
Conservation International, board member
Horace Mann School, board of trustees member

Andreas N. Koopmann
Born 1951
Swiss and French Citizen
Board member since 2009

Professional history

2009–present	Credit Suisse
	Member of the Compensation Committee (2013–present)
	Member of the Risk Committee (2009–2018)
	Member of the board of Credit Suisse (Schweiz) AG (Swiss subsidiary) (2015–2017)
1982–2009	Bobst Group S.A., Lausanne
	Group CEO (1995–2009)
	Member of the board (1998–2002)
	Executive Vice President (1994–1995)
	Member of the Group Executive Committee, head of manufacturing (1991–1994)
	Management positions in engineering and manufacturing (1982–1991)
Prior to 1982	Bruno Piatti AG and Motor Columbus AG, various positions

Education

1978	MBA, International Institute for Management Development, Switzerland
1976	Master's degree in Mechanical Engineering, Swiss Federal Institute of Technology, Switzerland

Other activities and functions

Georg Fischer AG, chairman of the board
CSD Group, vice-chairman of the board
Sonceboz SA, board member
Swiss Board Institute, member of the board of trustees
Economiesuisse, board member
EPFL, Lausanne, Switzerland, strategic advisory board member
EPFL+ Foundation, member of the board of trustees

Seraina Macia
Born 1968
Swiss and Australian Citizen
Board member since 2015

Professional history

2015–present	Credit Suisse
	Member of the Risk Committee (2018–present)
	Member of the Audit Committee (2015–2018)
2017–present	Blackboard U.S. Holdings, Inc. (AIG Corporation)
	Executive vice president & CEO of Blackboard (AIG technology-focused subsidiary; formerly Hamilton USA)
2016–2017	Hamilton Insurance Group
	CEO Hamilton USA
2013–2016	AIG Corporation
	Executive vice-president and CEO Regional Management & Operations of AIG, New York (2015–2016)
	CEO and President of AIG EMEA, London (2013–2016)
2010–2013	XL Insurance North America, chief executive
2002–2010	Zurich Financial Services
	President Specialties Business Unit, Zurich North America Commercial, New York (2007–2010)
	CFO, Zurich North America Commercial, New York (2006–2007)
	Various positions, among others: head of the joint investor relations and rating agencies management departments; head of rating agencies management; senior investor relations officer (2002–2008)
2000–2002	NZB Neue Zuercher Bank, founding partner and financial analyst
1990–2000	Swiss Re
	Rating agency coordinator, Swiss Re Group (2000)
	Senior underwriter and deputy head of financial products, Melbourne (1996–1999)
	Various senior underwriting and finance positions, Zurich (1990–1996)

Education

2001	Chartered Financial Analyst (CFA), CFA Institute, US
1999	MBA, Monash Mt Eliza Business School, Australia
1997	Post-graduate certificate in Management, Deakin University, Australia

Other activities and functions

BanQu, chair
CFA Institute, member
Food Bank for New York City, board member

Kai S. Nargolwala
Born 1950
Singaporean Citizen
Board member since 2013

Professional history

2008–present	Credit Suisse
	Member of the Conduct and Financial Crime Control Committee (2019–present)
	Chair of the Compensation Committee (2017–present)
	Member of the Governance and Nominations Committee (2017-present)
	Member of the Innovation and Technology Committee (2015–present)
	Member of the Compensation Committee (2014–present)
	Member of the Risk Committee (2013–2017)
	Non-executive chairman of Credit Suisse's Asia-Pacific region (2010–2011)
	Member of the Executive Board (2008–2010)
	CEO of Credit Suisse Asia Pacific region (2008–2010)
1998–2007	Standard Chartered plc, main board executive director
Prior to 1998	Bank of America
	Group executive vice president and head of Asia Wholesale Banking group in Hong Kong (1990–1995)
	Head of High Technology Industry group in San Francisco and New York (1984–1990)
	Various management and other positions in the UK (1976–1984)
	Peat Marwick Mitchell & Co., London, accountant (1970–1976)

Education

1974	Fellow of the Institute of Chartered Accountants (FCA), England and Wales
1969	BA in Economics, University of Delhi

Other activities and functions

Prudential plc, board member
Prudential Corporation Asia Limited, director and non-executive chairman
PSA International Pte. Ltd. Singapore, board member
Clifford Capital Pte. Ltd., director and non-executive chairman
Duke-NUS Graduate Medical School, Singapore, chairman of the governing board
Singapore Institute of Directors, Fellow

Ana Paula Pessoa
Born 1967
Brazilian Citizen
Board member since 2018

Professional history

2018–present	Credit Suisse
	Member of the Conduct and Financial Crime Control Committee (2019–present)
	Member of the Audit Committee (2018–present)
	Member of the Innovation and Technology Committee (2018–present)
2017–present	Kunumi AI, Partner, Investor and Chair
2015–2017	Olympic & Paralympic Games 2016, CFO of Organising Committee
2012–2015	Brunswick Group, Managing partner of Brazilian Branch
2001–2011	Infoglobo Newspaper Group, CFO and Innovation Director
1993–2001	Globo Organizations, Senior Management positions in several media divisions

Education

1991	MA, FRI (Development Economics), Stanford University, California
1988	BA, Economics and International Relations, Stanford University, California

Other activities and functions

Aegea Saneamento SA, board member
Vinci Group, board member
News Corporation, board member
Instituto Atlántico de Gobierno, advisory board member
The Nature Conservancy, advisory board member
Stanford Alumni Brasil Association (SUBA), board member
Fundação Roberto Marinho, member of the audit committee
Global Advisory Council for Stanford University, member

Joaquin J. Ribeiro
Born 1956
US Citizen
Board member since 2016

Professional history

2016–present	Credit Suisse
	Member of the Audit Committee (2016–present)
1997–2016	Deloitte LLP (USA)
	Vice chairman (2010–2016)
	Chairman of Global Financial Services Industry practice (2010–2016)
	Head of US Financial Services Industry practice (2003–2010)
	Head of Global Financial Services Industry practice in Asia (1997–2003)
	Head of South East Asian Corporate Restructuring practice (1997–2000)
2005–2010	World Economic Forum, senior advisor to Finance Governor's Committee

Education

1996	Executive Business Certificate, Columbia Business School, New York
1988	MBA in Finance, New York University, New York
1980	Certified Public Accountant, New York
1978	Bachelor degree in Accounting, Pace University, New York

Other activities and functions

Pace University, member of the board of trustees and chair of the audit committee

Severin Schwan
Born 1967
Austrian and German Citizen
Board member since 2014

Vice-Chair of the Board
Lead Independent Director

Professional history

2014–present	Credit Suisse
	Vice-Chair and Lead Independent Director (2017–present)
	Member of the Governance and Nominations Committee (2017–present)
	Member of the Risk Committee (2014–present)
	Member of the board of Credit Suisse (Schweiz) AG (Swiss subsidiary) (2015–2017)
1993–present	Roche Group
	CEO (2008–present)
	Member of the board of Roche Holding Ltd. (2013–present)
	CEO, Division Roche Diagnostics (2006–2008)
	Head Asia Pacific Region, Roche Diagnostics Singapore (2004–2006)
	Head Global Finance & Services, Roche Diagnostics Basel (2000–2004)
	Various management and other positions with Roche Germany, Belgium and Switzerland (1993–2000)

Education

1993	Doctor of Law, University of Innsbruck, Austria
1991	Master's degrees in Economics and Law, University of Innsbruck, Austria

Other activities and functions

International Federation of Pharmaceutical Manufacturers & Associations (IFPMA), vice-president

International Business Leaders Advisory Council for the Mayor of Shanghai, member

John Tiner
Born 1957
British Citizen
Board member since 2009

Professional history

2009–present	Credit Suisse
	Member of the Conduct and Financial Crime Control Committee (2019–present)
	Chair of the Audit Committee (2011–present)
	Member of the Governance and Nominations Committee (2011–present)
	Member of the Risk Committee (2011–present)
	Member of the Audit Committee (2009–present)
	Member of the board of Credit Suisse Holdings (USA), Inc. / Credit Suisse (USA), Inc. / Credit Suisse Securities (USA), LLC (US subsidiaries) (2015–present)
2008–2013	Resolution Operations LLP, CEO
2001–2007	Financial Services Authority (FSA)
	CEO (2003–2007)
	Managing director of the investment, insurance and consumer directorate (2001–2003)
Prior to 2001	Arthur Andersen, UK
	Managing partner, UK Business Consulting (1998–2001)
	Managing partner, Worldwide Financial Services practice (1997–2001)
	Head of UK Financial Services practice (1993–1997)
	Partner in banking and capital markets (1988–1997)
	Auditor and consultant, Tansley Witt (later Arthur Andersen UK) (1976–1988)

Education

2010	Honorary Doctor of Letters, Kingston University, London
1980	UK Chartered Accountant, Institute of Chartered Accountants in England and Wales

Other activities and functions

Ardonagh Group Limited, chairman

Salcombe Brewery Limited, chairman

Alexandre Zeller
Born 1961
Swiss Citizen
Board member 2017–2019

Professional history

2016–2019	Credit Suisse[1]
	Member of the Governance and Nominations Committee (2017–2019)
	Member of the Compensation Committee (2017–2019)
	Member of the Innovation and Technology Committee (2018–2019)
	Chairman of the board of Credit Suisse (Schweiz) AG (Swiss subsidiary) (2016–2019)
2013–2016	SIX Group AG, Chairman of the Board
2008–2012	HSBC Private Bank (Suisse)
	CEO, Country Manager Switzerland (2008–2012)
	Regional CEO Global Private Banking EMEA (2010–2012)
2002–2008	Banque Cantonale Vaudoise (BCV), CEO
1987–2002	Credit Suisse
	CEO Private Banking Switzerland (2002)
	Member of the Executive Board Private Banking Switzerland (1999–2002)
	Various management positions, including Head French speaking Switzerland and Vaud Region, Credit Suisse Private Banking and Head Corporate Clients (1987–1999)
1984–1987	Nestlé SA, Switzerland, International Operational Auditor

Education

1999	Advanced Management Program, Harvard Business School, US
1989	Corporate Finance and Capital Markets, International Bankers School, US
1982	Degree in Economics (Business Administration), University of Lausanne, Switzerland

Other activities and functions

Kudelski S.A., board member
Maus Frères S.A., board member
Swiss Finance Council, chairman[2]
Swiss Board Institute, advisory council member
Schweizer Berghilfe, foundation board member
Studienzentrum Gerzensee, foundation board member

1 Mr. Zeller stepped down from the Board as of February 28, 2019.
2 Mr. Zeller performed functions in this organization in his former capacity as chairman of Credit Suisse (Schweiz) AG.

Honorary Chairman of Credit Suisse Group AG

Rainer E. Gut, born 1932, Swiss Citizen, was appointed Honorary Chairman of the Group in 2000 after he retired as Chairman, a position he had held from 1986 to 2000. Mr. Gut was a member of the board of Nestlé SA, Vevey, from 1981 to 2005, where he was vice-chairman from 1991 to 2000 and chairman from 2000 to 2005.

As Honorary Chairman, Mr. Gut does not have any function in the governance of the Group and does not attend the meetings of the Board.

Secretaries of the Board

Joan E. Belzer
Roman Schaerer

Executive Board

Membership

The Executive Board is the most senior management body of the Group. Its members are appointed by the Board. Prior to the appointment of an Executive Board member, the terms and conditions of the individual's employment contract with the Group are reviewed by the Compensation Committee. The Executive Board currently consists of twelve members. The composition of the Executive Board of the Group and the Bank is identical, with the exception of Thomas Gottstein, who is a member of the Executive Board of the Group, but not the Bank. There were no changes in the composition of the Executive Board during 2018. The individual members of the Executive Board are listed in the tables below.

Members of the Executive Board as of December 31, 2018

	Executive Board member since	Role
December 31, 2018		
Tidjane Thiam, Chief Executive Officer	2015	Group CEO
James L. Amine, CEO Investment Banking & Capital Markets	2014	Divisional Head
Pierre-Olivier Bouée, COO	2015	Corporate Function Head
Romeo Cerutti, General Counsel	2009	Corporate Function Head
Brian Chin, CEO Global Markets	2016	Divisional Head
Peter Goerke, Chief Human Resources Officer	2015	Corporate Function Head
Thomas P. Gottstein, CEO Swiss Universal Bank	2015	Divisional Head
Iqbal Khan, CEO International Wealth Management	2015	Divisional Head
David R. Mathers, Chief Financial Officer	2010	Corporate Function Head
Joachim Oechslin, Chief Risk Officer	2014	Corporate Function Head
Helman Sitohang, CEO Asia Pacific	2015	Divisional Head
Lara J. Warner, Chief Compliance and Regulatory Affairs Officer	2015	Corporate Function Head

Executive Board changes

On February 26, 2019, the Group announced several changes to the Executive Board with immediate effect. Lydie Hudson and Antoinette Poschung were appointed as new Executive Board members in the roles of Chief Compliance Officer and Global Head of Human Resources, respectively. Lara Warner, who previously held the role of Chief Compliance and Regulatory Affairs Officer, was appointed Chief Risk Officer. Peter Goerke, former Chief Human Resources Officer, and Joachim Oechslin, former Chief Risk Officer, stepped down from the Executive Board.

Members of the Executive Board as of February 26, 2019

	Executive Board member since	Role
February 26, 2019		
Tidjane Thiam, Chief Executive Officer	2015	Group CEO
James L. Amine, CEO Investment Banking & Capital Markets	2014	Divisional Head
Pierre-Olivier Bouée, COO	2015	Corporate Function Head
Romeo Cerutti, General Counsel	2009	Corporate Function Head
Brian Chin, CEO Global Markets	2016	Divisional Head
Thomas P. Gottstein, CEO Swiss Universal Bank	2015	Divisional Head
Lydie Hudson, Chief Compliance Officer	2019	Corporate Function Head
Iqbal Khan, CEO International Wealth Management	2015	Divisional Head
David R. Mathers, Chief Financial Officer	2010	Corporate Function Head
Antoinette Poschung, Global Head of Human Resources	2019	Corporate Function Head
Helman Sitohang, CEO Asia Pacific	2015	Divisional Head
Lara J. Warner, Chief Risk Officer	2015	Corporate Function Head

Responsibilities

The Executive Board is responsible for the day-to-day operational management of the Group under the leadership of the CEO.

As part of its main duties and responsibilities, the Executive Board:
- establishes the strategic business plans for the Group overall as well as for the principal businesses, subject to approval by the Board;
- regularly reviews and coordinates significant initiatives, projects and business developments in the divisions and the corporate functions, including important risk management matters;
- regularly reviews the consolidated and divisional financial performance, including progress on key performance indicators, as well as the Group's capital and liquidity positions and those of its major subsidiaries;
- appoints and dismisses senior managers, with the exception of managers from Internal Audit, and periodically reviews senior management talent across the Group and talent development programs;
- reviews and approves business transactions, including mergers, acquisitions, establishment of joint ventures and establishment of subsidiary companies; and
- approves key policies for the Group.

Executive Board committees

The Executive Board has several standing committees, which are chaired by an Executive Board member and meet periodically throughout the year and/or as required. These committees are:
- Capital Allocation & Risk Management Committee (CARMC): CARMC is responsible for overseeing and directing our risk profile, recommending risk limits at the Group level to the Risk Committee and the Board, establishing and allocating risk appetite among the various businesses, reviewing new significant business strategies or changes in business strategies including business migrations, making risk-related decisions on escalations and for applying measures, methodologies and tools to monitor and manage the risk portfolio. CARMC meets monthly and conducts reviews according to three rotating cycles: the asset & liability management cycle (chaired by the CFO), the market & credit risks cycle (chaired by the Chief Risk Officer (CRO)) and the internal control system cycle (jointly chaired by the CRO and the Chief Compliance and Regulatory Affairs Officer (CCRO) or the Chief Compliance Officer (CCO) since the organizational change on February 26, 2019).
- Valuation Risk Management Committee (VARMC): the VARMC (chaired by the CFO) is responsible for establishing policies regarding the valuation of certain material assets and the policies and calculation methodologies applied in the valuation process. Additionally, the VARMC is responsible for monitoring and assessing valuation risks, reviewing inventory valuation conclusions and directing the resolution of significant valuation issues.
- Risk Process & Standards Committee (RPSC): the RPSC (chaired by the CRO) reviews major risk management processes, issues general instructions, standards and processes concerning risk management, approves material changes in market, credit and operational risk management standards, policies and related methodologies and approves the standards of our internal models used for calculating regulatory capital.
- Reputational Risk & Sustainability Committee (RRSC): the RRSC (chaired by the CRO) sets policies and reviews processes and significant cases relating to reputational risks and sustainability issues. It also reviews adherence to our reputational and sustainability policies and oversees their implementation.
- Group Conduct and Ethics Board: the Group CEB (co-chaired by the Chief Human Resources Officer and the CCRO or the Global Head of Human Resources and the CCO since the organizational change on February 26, 2019) is responsible for overseeing how conduct and ethics matters are handled within the divisions and corporate functions and ensuring consistency and alignment of practices across the Group. The Group CEB conducts reviews of employee sanctions and may perform subsequent evaluations for specific matters that have been escalated by the CEBs established for each division and the corporate functions. The Group CEB also oversees the activities of the newly established role of the conduct and ethics ombudsperson.

In July 2018, the new role of conduct and ethics ombudsperson was created as a result of a review of the Group's global approach to handling claims of sexual harassment. The review was initiated by our Chief Executive Officer in March 2018 and led by our General Counsel and our Chief Compliance and Regulatory Affairs Officer and our Chief Human Resources Officer at the time. The ombudsperson is accountable directly to the Chief Executive Officer and the Group Conduct and Ethics Board. The ombudsperson's role is to serve as a point of immediate escalation when sexual harassment claims arise and to ensure there is appropriate awareness of and attention to such claims. The ombudsperson works with our Compliance, General Counsel and Human Resources functions as well as our business divisions to review our relevant global training programs, policies and protocols, so that they can be further enhanced as part of our efforts to prevent sexual harassment at work and to make sure all cases are managed in a fair, accurate and consistent way within our global framework.

→ Refer to "Risk management" in III – Treasury, Risk, Balance sheet and Off-balance sheet for information on our risk management oversight.

Executive Board mandates

Our Executive Board members may, similar to our Board members, assume board or executive level or other roles in companies and organizations outside of the Group, which are collectively referred to as mandates. According to the Group's AoA, the number of mandates Executive Board members may hold in listed companies and other organizations outside of the Group is subject to certain restrictions, in order to comply with the Compensation Ordinance and to ensure that our Executive Board members dedicate sufficient time to fulfil their executive roles.

The limitations on mandates assumed by Executive Board members outside of the Group are summarized in the table below.

Type of mandate and limitation – Executive Board

Type of mandate	Limitation
Listed Companies	No more than one other mandate
Other legal entities [1]	No more than two mandates
Legal entities on behalf of the Group [2]	No more than ten mandates
Charitable legal entities [3]	No more than ten mandates

1 Includes private non-listed companies.
2 Includes memberships in business and industry associations.
3 Also includes honorary mandates in cultural or educational organizations.

No Executive Board member holds mandates in excess of these restrictions. The restrictions shown above do not apply to mandates of Executive Board members in legal entities controlled by the Group, such as subsidiary boards.

→ Refer to "Mandates" in Board of Directors for further information.

Biographies of the Executive Board members

Tidjane Thiam
Born 1962
French and Ivorian Citizen
Member since 2015

Chief Executive Officer

Professional history

2015–present	Credit Suisse
	Chief Executive Officer of the Group (2015–present)
	Member of the board of Credit Suisse (Schweiz) AG (Swiss subsidiary) (2016–present)
2008–2015	Prudential plc
	Group Chief Executive (2009–2015)
	Chief Financial Officer (2008–2009)
2002–2008	Aviva
	Chief Executive, Europe (2006–2008)
	Managing director, International (2004–2006)
	Group strategy & development director (2002–2004)
2000–2002	McKinsey & Co, partner, Paris
1998–1999	Minister of planning and development, Côte d'Ivoire
1994–1999	National Bureau for Technical Studies & Development, Côte d'Ivoire, Chairman and Chief Executive
Prior to 1994	McKinsey & Co, consultant, Paris, London and New York

Education

1988	Master of Business Administration, INSEAD
1986	Advanced Mathematics and Physics, Ecole Nationale Supérieure des Mines de Paris
1984	Ecole Polytechnique, Paris

Other activities and functions

21st Century Fox, board member
Group of Thirty (G30), member
International Business Council of the World Economic Forum, member
Swiss-American Chamber of Commerce, board member

James L. Amine
Born 1959
US Citizen
Member since 2014

CEO
Investment Banking
& Capital Markets

Professional history

1997–present	Credit Suisse
	CEO Investment Banking & Capital Markets (2015–present)
	Member of the board of Credit Suisse Holdings (USA), Inc. / Credit Suisse (USA), Inc. / Credit Suisse Securities (USA) LLC (US subsidiaries) (2014–present)
	Joint Head of Investment Banking, responsible for the Investment Banking Department (2014–2015)
	Head of Investment Banking Department (2012–2015)
	Member of the executive board of Credit Suisse Holdings (USA), Inc. (2010–2015)
	Co-Head of Investment Banking Department, responsible for the Americas and Asia Pacific (2010–2012)
	Co-Head of Investment Banking Department, responsible for EMEA and Asia Pacific and Head of Global Market Solutions Group (2008–2010)
	Head of European Global Markets Solutions Group and Co-Head of Global Leveraged Finance (2005–2008)
	Head of European Leveraged Finance (1999–2000; 2003–2005), Co-Head (2000–2003)
	Various functions within High-Yield Capital Markets of Credit Suisse First Boston (1997–1999)
Prior to 1997	Cravath, Swaine & Moore, attorney

Education

1984	JD, Harvard Law School
1981	BA, Brown University

Other activities and functions

Brown University, President's Advisory Council on Economics
New York Cares, board member
Americas Diversity Council, member
Leadership Committee of Lincoln Center Corporate Fund, member
Caramoor Center for Music and the Arts, board member
Harvard Law School, dean's advisory board member
Credit Suisse Americas Foundation, board member

Pierre-Olivier Bouée
Born 1971
French Citizen
Member since 2015

Chief Operating Officer

Romeo Cerutti
Born 1962
Swiss and Italian Citizen
Member since 2009

General Counsel

Professional history

2015–present	Credit Suisse
	Chief Operating Officer (2015–present)
	Member of the Innovation and Technology Committee (2017–present)
	Chief of Staff (2015)
2008–2015	Prudential plc
	Group Risk Officer (2013–2015)
	Managing director, CEO office (2009–2013)
	Business representative Asia (2008–2013)
2004–2008	Aviva
	Director, Central & Eastern Europe (2006–2008)
	Director, Group strategy (2004–2006)
2000–2004	McKinsey & Company
	Associate principal (2004)
	Engagement manager (2002–2004)
	Associate (2000–2002)
1997–2000	French Government Ministry of Economy and Finance, Treasury Department
	Deputy General Secretary of the Paris Club
	Deputy Head, International Debt office (F1)

Education

1997	Master in Public Administration, Ecole Nationale d'Administration (ENA)
1991	Master in Business and Finance, Hautes Etudes Commerciales (HEC)
1991	Master in Corporate Law, Faculté de Droit Paris XI, Jean Monnet

Other activities and functions

Mr. Bouée currently does not hold directorships in other organizations.

Professional history

2006–present	Credit Suisse
	General Counsel (2009–present)
	Global Co-Head of Compliance (2008–2009)
	General Counsel, Private Banking (2006–2009)
1999–2006	Lombard Odier Darier Hentsch & Cie
	Partner of the Group Holding (2004–2006)
	Head of Corporate Finance (1999–2004)
1995–1999	Homburger Rechtsanwälte, Zurich, attorney-at-law
Prior to 1995	Latham and Watkins, Los Angeles, attorney-at-law

Education

1998	Post-doctorate degree in Law (Habilitation), University of Fribourg
1992	Admission to the bar of the State of California
1992	Master of Law (LLM), University of California, Los Angeles
1990	Doctorate in Law, University of Fribourg
1989	Admission to the bar of the Canton of Zurich
1986	Master in Law (lic.iur.), University of Fribourg

Other activities and functions

Vifor Pharma Ltd., board member
Swiss Finance Institute (SFI), chairman
American-Swiss Chamber of Commerce, legal group member
Ulrico Hoepli Foundation, board of trustees member

Brian Chin
Born 1977
US Citizen
Member since 2016

CEO
Global Markets

Professional history

2003–present	Credit Suisse
	CEO Global Markets (2016–present)
	Member of the board of Credit Suisse Holdings (USA), Inc. / Credit Suisse (USA), Inc. / Credit Suisse Securities (USA) LLC (US subsidiaries) (2016–present)
	Co-Head of Credit Pillar within Global Markets (2015–2016)
	Global Head of Securitized Products and Co-Head of Fixed Income, Americas (2012–2016)
	Other senior positions within Investment Banking (2003–2012)
2000–2003	Deloitte & Touche LLP, senior analyst, Securitization Transaction Team
Prior to 2000	PriceWaterhouseCoopers LLP, Capital Markets Advisory Services
	The United States Attorney's Office, Frauds division

Education

2000	BS in Accounting, Rutgers University

Other activities and functions

Credit Suisse Americas Foundation, board member

Peter Goerke
Born 1962
Swiss Citizen
Member 2015–2019

Chief Human Resources Officer

Professional history

2015–present	Credit Suisse
	Chief Human Resources Officer (2017–2019)
	Head of Human Resources, Communications & Branding (2015–2017)
2011–2015	Prudential plc
	Group Human Resources director and member of the Group Executive Committee (2011–2015)
	Chairman of the Group Head Office Management Committee (2012–2015)
	Director of Corporate Property (2012–2015)
2005–2010	Zurich Financial Services, AG, Switzerland, Group Head of Human Resources and Member of the Group Management Board
2000–2005	Egon Zehnder International, Switzerland, Head of Global Insurance Practice
1997–2000	McKinsey & Company, Zurich and Chicago, Senior engagement manager
1989–1996	Abegglen Management Consultants, Switzerland, Various positions up to partner

Education

2002	Advanced Management Program (AMP), University of Pennsylvania – The Wharton School
1998	lic.oec., University of St. Gallen

Other activities and functions

Credit Suisse Foundation, board member

Thomas P. Gottstein
Born 1964
Swiss Citizen
Member since 2015

CEO
Swiss Universal Bank

Professional history

1999–present	Credit Suisse
	CEO Credit Suisse (Schweiz) AG (2016-present)
	CEO Swiss Universal Bank (2015–present)
	Member of the Executive Board of Credit Suisse AG (2015-2016)
	Head of Premium Clients Switzerland & Global External Asset Managers (2014–2015)
	Head of Investment Banking Coverage Switzerland (2010–2013)
	Co-Head of Equity Capital Markets EMEA (2007–2009)
	Head of Equity Capital Markets Switzerland, Austria and Scandinavia, London (2005–2007)
	Head of Equity Capital Markets Switzerland, Zurich (2002–2005)
	Investment Banking Department Switzerland (1999–2002)
Prior to 1999	UBS, Telecoms Investment Banking and Equity Capital Markets

Education

1996	Doctoral degree in Finance and Accounting, University of Zurich
1989	Degree in Business Administration and Economics, University of Zurich

Other activities and functions

Pension Fund of Credit Suisse Group (Switzerland), member of the foundation board and investment committee
Credit Suisse Foundation, member of the foundation board
Private Banking Steering Committee of the Swiss Banking Association, member
FINMA Private Banking Panel, member
Swiss Entrepreneurs Foundation, member of the foundation board
Opernhaus Zurich, board member

Lydie Hudson
Born 1979
US Citizen
Member since 2019

Chief Compliance Officer

Professional history

2008–present	Credit Suisse
	Chief Compliance Officer (2019–present)
	Chief Operating Officer, Global Markets (2015–2019)
	Chief Operating Officer, Global Equities (2014–2015)
	Various management and strategy roles in Equities, Fixed Income and Asset Management (2008–2014)
2006–2008	The Boston Consulting Group, consultant
2001–2004	Lehman Brothers, associate, analyst, Global Real Estate Group

Education

2006	Master in Business Administration (MBA), Harvard Business School
2001	Bachelor of Arts, International Politics and Economics, Middlebury College

Other activities and functions

Good Shepherd Services, board member
World Economic Forum, Young Global Leader

Iqbal Khan
Born 1976
Swiss Citizen
Member since 2015

CEO
International Wealth Management

Professional history

2013–present	Credit Suisse
	CEO International Wealth Management (2015–present)
	CFO Private Banking & Wealth Management (2013–2015)
2001–2013	Ernst & Young, Switzerland
	Managing Partner Assurance and Advisory Services – Financial Services (2011-2013)
	Member of Swiss Management Committee (2011–2013)
	Industry Lead Partner Banking and Capital Markets, Switzerland and EMEA Private Banking (2009-2011)
	Various positions (2001–2009)

Education

2012	Advanced Master of International Business Law (LLM), University of Zurich
2004	Certified Financial Analyst
2002	Swiss Certified Public Accountant
1999	Swiss Certified Trustee

Other activities and functions

Credit Suisse Foundation, board member

David R. Mathers
Born 1965
British Citizen
Member since 2010

Chief Financial Officer

Professional history

1998–present	Credit Suisse
	Chief Financial Officer (2010–present)
	CEO of Credit Suisse International and Credit Suisse Securities (Europe) Limited (UK subsidiaries) (2016–present)
	Head of Strategic Resolution Unit (2015–2018)
	Head of IT and Operations (2012–2015)
	Head of Finance and COO of Investment Banking (2007–2010)
	Senior positions in Credit Suisse's Equity business, including Director of European Research and Co-Head of European Equities (1998–2007)
Prior to 1998	HSBC
	Global head of equity research (1997–1998)
	Research analyst, HSBC James Capel (1987–1997)

Education

1991	Associate Certification, Society of Investment Analysis
1991	MA in Natural Sciences, University of Cambridge, England
1987	BA in Natural Sciences, University of Cambridge, England

Other activities and functions

European CFO Network, member

Academic awards and grants at Robinson College, Cambridge, sponsor

Joachim Oechslin
Born 1970
Swiss Citizen
Member 2014–2019

Chief Risk Officer

Professional history

2014–present	Credit Suisse
	Chief Risk Officer (2014–2019)
	Member of the board of Credit Suisse Holdings (USA), Inc. / Credit Suisse (USA), Inc. / Credit Suisse Securities (USA) LLC (US subsidiaries) (2016–2019)
2007–2013	Munich Re Group, Chief Risk Officer
2007	AXA Group, deputy Chief Risk Officer
2001–2006	Winterthur Swiss Insurance Company
	Member of the executive board (2006)
	Chief Risk Officer (2003–2006)
	Head of risk management (2001–2003)
1998–2001	McKinsey & Company, consultant

Education

1998	Licentiate/Master of Science in Mathematics, Swiss Federal Institute of Technology (ETH), Zurich
1994	Engineering degree, Higher Technical Institute (HTL), Winterthur

Other activities and functions

International Financial Risk Institute, member

Credit Suisse Foundation, board member

Antoinette Poschung
Born 1956
Swiss Citizen
Member since 2019

Global Head of Human Resources

Professional history

2008–present	Credit Suisse
	Global Head of Human Resources (2019-present)
	Conduct and ethics ombudsperson (2018–present)
	Head of Human Resources for Corporate Functions (2018–2019)
	Head of Talent Development & Organizational Effectiveness (2015–2017)
	Head of Compensation, Benefits & Payroll (2012–2014)
	Head of Human Resources Shared Services (2008–2012)
2007–2008	AXA-Winterthur, member of the Executive Board and Head of Human Resources
2003–2007	Winterthur Swiss Insurance Group, Head of Human Resources
2001–2003	Canton Zurich, Head of Human Resources for the Cantonal Administration
1998–2001	Baloise Group, Head of Human Resources Basler Insurance

Education

2016	Certificate of Organizational and Executive Coaching, Columbia University
1989	Master in Education, Psychology and Philosophy, University of Zurich

Other activities and functions

Ms. Poschung currently does not hold directorships in other organizations.

Helman Sitohang
Born 1965
Indonesian Citizen
Member since 2015

CEO
Asia Pacific

Professional history

1999–present	Credit Suisse
	CEO Asia Pacific (2015–present)
	Regional CEO APAC (2014–2015)
	Head of Investment Banking Asia Pacific (2012–2015)
	Co-Head of the Emerging Markets Council (2012–2015)
	CEO of South East Asia (2010–2015)
	Co-Head of the Investment Banking Department – Asia Pacific (2009–2012)
	Co-Head of the Global Markets Solutions Group – Asia Pacific (2009–2012)
	Country CEO, Indonesia (1999–2010)
Prior to 1999	Bankers Trust, derivatives group

Education

1989	BS in Engineering, Bandung Institute of Technology

Other activities and functions

Credit Suisse Foundation, board member

Room to Read Singapore Ltd., advisory board member

Lara J. Warner
Born 1967
Australian and US Citizen
Member since 2015

Chief Risk Officer

Professional history

2002–present	Credit Suisse
	Chief Risk Officer (2019–present)
	Chief Compliance and Regulatory Affairs Officer (2015–2019)
	Chief Operating Officer, Investment Banking (2013–2015)
	Chief Financial Officer, Investment Banking (2010–2015)
	Head of Global Fixed Income Research (2009–2010)
	Head of US Equity Research (2004–2009)
	Senior Equity Research Analyst (2002–2004)
1999–2001	Lehman Brothers, equity research analyst
Prior to 1999	AT&T
	Director of Investor Relations (1997–1999)
	Chief Financial Officer, Competitive Local Exchange Business (1995-1997)
	Various finance and operating roles (1988-1995)

Education

1988	Bachelor of Science – Finance, Pennsylvania State University

Other activities and functions

Pennsylvania State University Board of Visitors, member

Women's Leadership Board of Harvard University's John F. Kennedy School of Government, chair emeritus

Aspen Institute's Business and Society Program, board member

Harvard Kennedy School – Dean's Executive Committee, board member

Additional information

Banking relationships with Board and Executive Board members and related party transactions

The Group is a global financial services provider. Many of the members of the Board and the Executive Board, their close family members or companies associated with them maintain banking relationships with us. The Group or any of its banking subsidiaries may from time to time enter into financing and other banking agreements with companies in which current members of the Board or the Executive Board have a significant influence as defined by the SEC, such as holding executive and/or board level roles in these companies. With the exception of the transactions described below, relationships with members of the Board or the Executive Board and such companies are in the ordinary course of business and are entered into on an arm's length basis. Also, unless otherwise noted, all loans to members of the Board, members of the Executive Board, their close family members or companies associated with them were made in the ordinary course of business, were made on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons and did not involve more than the normal risk of collectability or present other unfavorable features. As of December 31, 2018, 2017 and 2016, there were no loan exposures to such related parties that were not made in the ordinary course of business and at prevailing market conditions.

→ Refer to "Board loans" and "Executive Board loans (audited)" in V – Compensation – Board of Directors compensation and – Executive Board compensation for 2018, respectively, for the outstanding loans to members of the Board and the Executive Board.

Related party transactions

Tier 1 capital instruments

Beginning in February 2011, the Group entered into agreements with entities affiliated with Qatar Investment Authority (QIA) and The Olayan Group, each of which has significant holdings of Group shares and other Group financial products, to purchase tier 1 high-trigger capital instruments. The agreements were subsequently amended in 2012 and 2013.

In October 2018, the Group redeemed the following tier 1 high-trigger capital instruments:

- USD 1.725 billion, 9.5%, held by an affiliate of The Olayan Group;
- USD 1.72 billion, 9.5%, held by an affiliate of QIA; and
- CHF 2.5 billion, 9.0%, held by an affiliate of QIA.

At the time of the original transaction, the Group determined that this was a material transaction and deemed QIA and The Olayan Group to be related parties of our then Board members Jassim Bin Hamad J.J. Al Thani and Aziz R.D. Syriani for purposes of evaluating the terms and corporate governance of the original transaction. At that time, the Board (except for Mr. Bin Hamad J.J. Al Thani and Mr. Syriani, who abstained from participating in the determination process) determined that the terms of the original transaction, given its size, the nature of the contingent capital instrument, for which there was no established market, and the terms of the notes issued and held by QIA and The Olayan Group, were fair. As of April 26, 2013 and April 28, 2017, respectively, Mr. Syriani and Mr. Bin Hamad J.J. Al Thani retired from the Board and no other person affiliated with The Olayan Group or with QIA has been elected as a Board member.

→ Refer to "Note 30 – Related parties" in VI – Consolidated financial statements – Credit Suisse Group for further information on related party transactions.

Other

In December 2018, a subsidiary of the Group executed a transaction with an affiliate to sell a minority interest in a trading platform for a gain of approximately USD 80 million.

External Audit

→ Refer to "Audit Committee" in Board of Directors – Board committees for further information on the responsibilities of the audit committee.

External audit forms an integral part of the Group's corporate governance framework and plays a key role by providing an independent assessment of our operations and internal controls.

The AGM elects the external auditors annually. Our statutory auditor is KPMG AG (KPMG), Badenerstrasse 172, 8004 Zurich, Switzerland. The mandate was first given to KPMG for the business year 1989/1990. The lead audit partners are subject to periodic rotation requirements. The lead Group engagement partners are Anthony Anzevino, Global Lead Partner (since 2012) and Nicholas Edmonds, Group Engagement Partner (since 2016).

In 2018, upon the recommendation of the Audit Committee, the Board proposed PricewaterhouseCoopers as the new statutory auditor at the 2020 AGM, effective for the fiscal year ending December 31, 2020 and subject to shareholder approval.

In addition, we have mandated BDO AG, Fabrikstrasse 50, 8031 Zurich, Switzerland, as special auditor for the purposes of issuing the legally required report for capital increases in accordance with Article 652f of the Swiss Code of Obligations, mainly relating to the valuation of companies in consideration of the qualified capital increases involving contributions in kind.

Audit committee pre-approval policy

The Audit Committee monitors and pre-approves the fees to be paid to KPMG for its services. It has developed and approved a policy on the engagement of public accounting firms that is designed to help ensure that the independence of the external auditor is maintained at all times.

The policy limits the scope of services that the external auditor may provide to us or any of our subsidiaries in connection with its audit and stipulates certain permissible types of non-audit services, including audit-related services, tax services and other services that have been pre-approved by the Audit Committee. The

Audit Committee pre-approves all other services on a case-by-case basis. The external auditor is required to report periodically to the Audit Committee about the scope of the services it has provided and the fees for the services it has performed to date.

Fees paid to external auditors

in	2018	2017	% change
Fees paid to external auditors (CHF million)			
Audit services [1]	49.8	51.4	(3)
Audit-related services [2]	5.7	7.2	(21)
Tax services [3]	3.0	3.3	(9)

1 Audit services include the integrated audit of the Group's consolidated and statutory financial statements, interim reviews and comfort and consent letters. Additionally they include all assurance and attestation services related to the regulatory filings of the Group and its subsidiaries. Audit fees exclude value-added taxes.
2 Audit-related services are primarily in respect of: (i) reports related to the Group's compliance with provisions of agreements or calculations required by agreements; (ii) accounting advice; (iii) audits of private equity funds and employee benefit plans; and (iv) regulatory advisory services.
3 Tax services are in respect of tax compliance and consultation services, including: (i) preparation and/or review of tax returns of the Group and its subsidiaries; (ii) assistance with tax audits and appeals; and (iii) confirmations relating to the Qualified Intermediary status of Group entities.

KPMG attends all meetings of the Audit Committee and reports on the findings of its audit and/or interim review work. The Audit Committee reviews KPMG's audit plan on an annual basis and evaluates the performance of KPMG and its senior representatives in fulfilling their responsibilities. Moreover, the Audit Committee recommends to the Board the appointment or replacement of the external auditor, subject to shareholder approval as required by Swiss law.

KPMG provides a report as to its independence to the Audit Committee at least once a year. In accordance with our pre-approval policy and as in prior years, all KPMG non-audit services provided in 2018 were pre-approved. KPMG is required to report to the Audit Committee periodically regarding the extent of services provided by KPMG and the fees for the services performed as of that date.

Other information

Complying with rules and regulations

We fully adhere to the principles set out in the Swiss Code of Best Practice for Corporate Governance, dated August 28, 2014, including its appendix stipulating recommendations on the process for setting compensation for the Board and the Executive Board.

In connection with our primary listing on the SIX, we are subject to the SIX Directive on Information relating to Corporate Governance, dated March 20, 2018. Our shares are also listed on the NYSE in the form of ADS and certain of the Group's exchange traded notes are listed on Nasdaq. As a result, we are subject to certain US rules and regulations. We adhere to the NYSE's and Nasdaq's corporate governance listing standards (NYSE and Nasdaq standards), with a few exceptions where the rules are not applicable to foreign private issuers.

The following are the significant differences between our corporate governance standards and the corporate governance standards applicable to US domestic issuers listed on the NYSE and Nasdaq:

- Approval of employee benefit plans: NYSE and Nasdaq standards require shareholder approval of the establishment of, and material revisions to, certain equity compensation plans. We comply with Swiss law, which requires that shareholders approve the creation of conditional capital used to allow for the issuance of shares for employee benefit plans and other equity compensation plans, but does not require shareholders to approve the terms of those plans.
- Risk assessment and risk management: NYSE standards allocate to the Audit Committee responsibility for the discussion of guidelines and policies governing the process by which risk assessment and risk management is undertaken, while at the Group these duties are assumed by the Risk Committee. Whereas our Audit Committee members satisfy the NYSE as well as Nasdaq independence requirements, our Risk Committee may include non-independent members.
- Independence of nominating and corporate governance committee: NYSE and Nasdaq standards require that all members of the nominating and corporate governance committee be independent. The Group's Governance and Nominations Committee is currently composed entirely of independent members, but according to its charter, may include non-independent members.
- Reporting: NYSE standards require that certain board committees report specified information directly to shareholders, while under Swiss law only the Board reports directly to the shareholders and the committees submit their reports to the full Board.
- Appointment of the external auditor: NYSE and Nasdaq standards require that an Audit Committee of a listed company comply with and have the authority necessary to comply with the requirements of Rule 10A-3 of the Securities Exchange Act of 1934. Rule 10A-3 requires the Audit Committee to be directly responsible for the appointment, compensation, retention and oversight of the external auditor unless there is a conflicting requirement under home country law. Under Swiss law, the appointment of the external auditor must be approved by the shareholders at the AGM based on the proposal of the Board, which receives the advice and recommendation of the Audit Committee.
- Audit Committee charter: Nasdaq standards require the Audit Committee to review and assess the adequacy of its charter on an annual basis, while our Audit Committee's charter only requires review and assessment from time to time.
- Executive sessions: NYSE and Nasdaq standards require the board of directors to meet regularly in executive sessions composed solely of independent directors. Our Board meets regularly in executive sessions comprising all directors, including any directors determined to be not independent. If any item discussed at the meeting raises a conflict of interest for any of our directors, however, such director does not participate in the related decision making. In line with Swiss law, the Board does not include any directors who are also members of management.
- Quorums: Nasdaq standards require that the company's bylaws provide for a quorum of at least 33⅓% of the outstanding

shares of the company's common stock for any meeting of the holders of common stock. The Group's AoA call for a quorum in certain instances, but do not require a quorum of 33⅓% or greater of the holders of the outstanding shares of common stock for any meeting of shareholders.

- Independence: NYSE and Nasdaq independence standards specify thresholds for the maximum permissible amount of (i) direct compensation that can be paid by the company to a director or an immediate family member thereof, outside of such director's directorship fees and other permitted payments; and (ii) payments between the company and another company at which such director or an immediate family member thereof is an executive officer, controlling shareholder, partner or employee. Our independence standards do not specify thresholds for direct compensation or cross-company revenues, but consider these facts in the overall materiality of the business relationship determination for independence purposes.

Fiduciary duties and indemnification

The Swiss Code of Obligations requires directors and members of senior management to safeguard the interests of the corporation and, in connection with this requirement, imposes the duties of care and loyalty on directors and members of senior management. While Swiss law does not have a general provision on conflicts of interest, the duties of care and loyalty are generally understood to disqualify directors and members of senior management from participating in decisions that could directly affect them. Directors and members of senior management are personally liable to the corporation for any breach of these provisions.

The Group's AoA and the Bank's AoA do not contain provisions regarding the indemnification of directors and officers. According to Swiss statutory law, an employee has a right to be indemnified by the employer against losses and expenses incurred by such person in the execution of such person's duties under an employment agreement, unless the losses and expenses arise from the employee's gross negligence or willful misconduct. It is our policy to indemnify current and former directors and/or employees against certain losses and expenses in respect of service as a director or employee of the Group, one of the Group's affiliates or another entity that we have approved, subject to specific conditions or exclusions. We maintain directors' and officers' insurance for our directors and officers.

Fees and charges for holders of ADS

In November 2016, the Group entered into a deposit agreement with The Bank of New York Mellon as depositary for the ADS (Depositary). In accordance with the deposit agreement, the Depositary may charge holders of our ADS, either directly or indirectly, fees or charges up to the amounts described below.

The Depositary collects its fees and related expenses for the delivery and surrender of ADS directly from investors depositing or surrendering ADS for the purpose of withdrawal or from intermediaries acting for them. The Depositary collects fees and expenses for making distributions to holders by deducting those fees and expenses from the amounts distributed or by selling a portion of distributable property to pay the fees and expenses. The Depositary may generally refuse to provide fees and expenses until its fees for those services are paid.

Fees and charges for holders of ADS

Fees	
USD 5 (or less) per 100 ADS (or portion thereof)	For the issuance of ADS, including issuances resulting from a distribution of shares, share dividends, share splits and other property; for ADS issued upon the exercise of rights; and for the surrender of ADS for cancellation and withdrawal of shares.
USD 0.05 (or less) per ADS	For any distribution of cash to ADS registered holders, including upon the sale of rights or other entitlements.
Registration or transfer fees	For the transfer and registration of shares on our share register to or from the name of the Depositary or its agent when the holder deposits or withdraws shares.
Charges	
Expenses of the Depositary	For cable and facsimile transmissions (when expressly provided in the deposit agreement); and for converting foreign currency to US dollars.
Taxes and other governmental charges	Paid, as necessary, to the Depositary or the custodian who pays certain charges on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or applicable interest or penalty thereon.
Other charges	Paid, as necessary, to the Depositary or its agents for servicing the deposited shares.

Amounts paid by the Depositary to the Group

In 2018, in accordance with the deposit agreement, the Depositary made payments to the Group in an aggregated amount of USD 400 million, including for the reimbursement of expenses relating to its ADS program. The Depositary has also contractually agreed to provide certain ADS program-related services free of charge.

Under certain circumstances, including removal of the Depositary or termination of the ADS program by the Group, the Group is required to repay certain amounts paid to the Group and to compensate the Depositary for payments made or services provided on behalf of the Group.

V – Compensation

Compensation

Letter from the Chair of the Compensation Committee

Kai S. Nargolwala
Chair of the
Compensation Committee

Dear shareholders

As Chair of the Compensation Committee of the Board of Directors (Compensation Committee), I am pleased to present to you the 2018 Compensation Report. The changes that we introduced last year to the structure and presentation of the report were well received, and we have retained and built on this approach for the 2018 Compensation Report.

Key compensation and performance highlights

For 2018, the Compensation Committee reviewed not only the performance during the year, but also the level of achievement of the three-year restructuring program over the years 2016, 2017 and 2018. When the program was announced in October 2015, there were three main objectives. Firstly, there were some urgent matters to be addressed, namely the capital position, the absolute level of risk, and the cost base. Secondly, the Group defined a strategy to be a leading wealth manager with strong investment banking capabilities for sustainable, compliant and profitable growth. Thirdly, the goal was to significantly upgrade our risk and compliance controls and to improve our culture. Some of the ways in which senior management has successfully addressed these objectives are reflected in the table and charts below, as well as in the following Group performance highlights:

- Achieved first annual post-tax profit since 2014, with CHF 2.02 billion of net income attributable to shareholders;
- Significantly strengthened the Group's capital position, with a look-through common equity tier 1 (CET1) ratio of 12.6% at the end of 2018 compared with 11.4% at the end of 2015, and as demonstrated by the launch of the Group's share buyback program of up to CHF 1.5 billion for 2019;
- Reduced the adjusted operating cost base by CHF 4.6 billion since 2015, exceeding the target of costs below CHF 17 billion for 2018. This protected the Group's returns and profitability as revenues came under pressure in the second half of 2018 due to market conditions;
- Successfully closed the Strategic Resolution Unit and significantly de-risked the Global Markets businesses, which positioned the Group well to weather the widening of credit spreads in the fourth quarter of 2018;
- Rebalanced the Group's activities to shift capital towards the Wealth Management-related and Investment Banking & Capital Markets businesses, which typically generate higher returns and are less volatile; and
- Took a number of steps to improve risk and compliance controls, including increasing our headcount in compliance, decreasing the number of high severity compliance incidents, implementing a single client view, and introducing other measures focused on further enhancing the conduct and ethics culture of the Group.

Key financial and strategic achievements in 2018

	2018	2017	Change	Change
Financial performance (in CHF billion)				
Reported income before taxes	3.4	1.8	+1.6	+88%
Adjusted income before taxes	4.2	2.8	+1.4	+52%
Adjusted net revenues	20.8	20.9	-0.1	0%
of which Wealth Management-related [1]	13.2	12.9	+0.3	+2%
Adjusted operating cost base	16.5	18.0	-1.5	-8%
Net new assets from Wealth Management [2]	34.4	37.2	-2.8	-8%

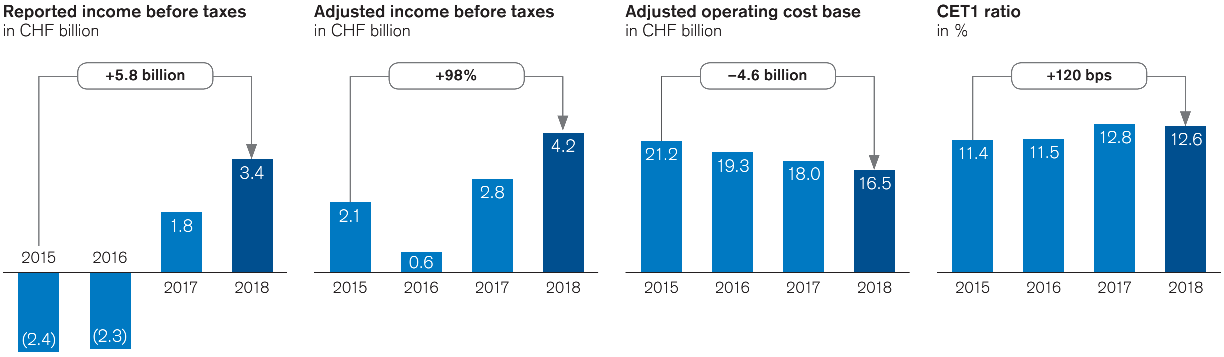
	Strategic initiatives
✓	Achieved external cost target of < CHF 17 billion
✓	Closed down the Strategic Resolution Unit
✓	Launched share buyback
✓	Increased capital consumption of Wealth Management-related[1] and Investment Banking & Capital Markets businesses to 68% in 2018, compared with 49% in 2015
✓	De-risked Global Markets activities since 2015
✓	Significantly upgraded compliance and control frameworks

Adjusted results are non-GAAP financial measures which exclude certain items included in our reported results. Refer to "Reconciliation of adjusted results" in I – Information on the company – Strategy and II – Operating and financial review – Credit Suisse for further information.

1 References to our Wealth Management-related businesses mean our Swiss Universal Bank division, our International Wealth Management division and our Wealth Management & Connected business within our Asia Pacific division or their combined results.

2 Referring to the combined net new assets of Private Clients within Swiss Universal Bank, Private Banking within International Wealth Management and Private Banking within Wealth Management & Connected in Asia Pacific.

Group performance highlights over the strategic restructuring period



→ Adjusted results are non-GAAP financial measures which exclude certain items included in our reported results. Refer to "Reconciliation of adjusted results" in I – Information on the company – Strategy and II – Operating and financial review – Credit Suisse for further information. 2015 adjusted income before taxes excludes a goodwill impairment of CHF 3,797 million, major litigation provisions of CHF 820 million, restructuring expenses of CHF 355 million, a positive fair value impact from movements in own credit spreads of CHF 298 million, real estate gains of CHF 95 million and gains from business sales of CHF 34 million.

The Group's key financial and strategic achievements and overall performance during 2018 were taken into consideration by the Board of Directors (Board) in its approval of the following compensation decisions for the Group and the Executive Board:

- Group variable incentive compensation pool of CHF 3,195 million, stable compared with the prior year, while taking the opportunity to increase the level of differentiation for high performers;
- Total aggregate Executive Board compensation of CHF 93.49 million, 17% higher than the prior year (before the 40% voluntary reduction in the 2017 long-term incentive (LTI) maximum opportunity); and
- Total CEO compensation of CHF 12.65 million, 13% higher than the prior year (before the 40% voluntary reduction in the 2017 LTI maximum opportunity).

2018 compensation decisions

Group compensation

The Group takes a total compensation approach, whereby fixed and variable compensation are assessed in total at the individual level to determine an appropriate balance between the two components. Overall Group compensation and benefits expense for 2018 decreased by 7%, from CHF 10,367 million in 2017 to CHF 9,620 million.

In addition to the Group's financial performance in 2018, the Compensation Committee considered a range of other factors in determining the Group's variable incentive compensation pool. These included progress made against strategic objectives, relative performance, market position and market trends, as well as control, risk, compliance and ethical considerations. Taking all of these factors into account, the Board approved a total Group variable incentive compensation pool of CHF 3,195 million, stable compared with 2017.

Market conditions in the second half of 2018 became more challenging for the financial services industry, with a significant drop in client activity resulting from a combination of factors including increasing trade tensions, rising US interest rates and greater geopolitical uncertainty. Against the backdrop of these conditions, the Compensation Committee decided to keep the Group variable incentive compensation pool stable to the previous year, notwithstanding an increase in adjusted income before taxes of 52% over the same period, to protect returns and profitability in light of downward pressure on revenues during the second half of the year.

→ Refer to the "Group compensation and benefits expense" table and "Determination of variable incentive compensation pools" in Group Compensation for further information.

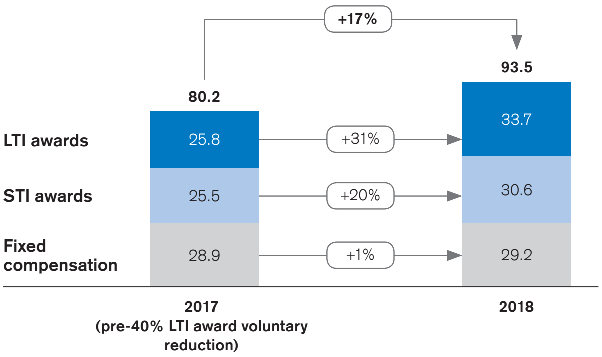
The Group variable incentive compensation pool includes the amounts for the Executive Board and the CEO. Although the overall pool is stable compared with the previous year, differentiation has been made such that high-performing employees received year-on-year increases in variable incentive compensation to reflect their contribution to the Group's improved financial performance. In addition, as a result of high deferral rates and the granting of share-based deferred awards, the realized compensation of senior employees and the Executive Board members is aligned with shareholders' interests.

Executive Board compensation
Total aggregate Executive Board compensation for 2018 is CHF 93.49 million, which is comprised of:

- CHF 29.20 million total fixed compensation;
- CHF 30.56 million total 2018 short-term incentive (STI) award, subject to shareholder approval at the 2019 AGM;
- CHF 33.73 million total 2018 LTI award at fair value at the time of grant, with a maximum opportunity of CHF 58.5 million, as approved at the 2018 AGM.

→ Refer to "Executive Board compensation for 2018" for further information.

Total Executive Board compensation
in CHF million



Compared with the amount for 2017, before the voluntary 40% reduction in the LTI maximum opportunity, total compensation for 2018 is 17% higher than the prior year. The main drivers of this change are improved performance in exceeding the cost target and significantly higher profitability as reflected in the 2018 STI awards, increases to the maximum opportunities for certain selected Executive Board members based on role expansion and scope of responsibilities, and a higher fair value for the 2018 LTI awards calculated by one of the major international accounting firms. It is important to note that taking the Executive Board as a whole (excluding the CEO), maximum opportunities average 54% of the STI cap of 2.5 times base salary and 55% of the LTI cap of 4.25 times base salary.

The year-on-year change in Executive Board compensation disclosed for 2018 is largely driven by the 2018 LTI award, which was approved at the 2018 AGM. The drivers of the higher LTI award amount are the return to the LTI opportunity levels before the voluntary 40% reduction that was reflected in the 2017 LTI award, increases to the maximum opportunities of selected Executive Board members and a higher fair valuation of the awards.

As part of the annual review and assessment of market benchmarking data, the maximum opportunities of certain individual members were adjusted to better reflect the expansion of their roles and responsibilities, and in a small number of cases, to more closely align with the increased market value of such roles. While the review of benchmarking data is an annual process, adjustments to maximum opportunities are made selectively and do not happen frequently for individual Executive Board members.

The STI award amount is determined based on performance against financial and non-financial metrics. The financial metrics (66⅔% weighting) consist of pre-defined performance levels for adjusted income before taxes and a cost target, and the Group's financial performance in 2018 resulted in a payout of approximately 85% of the maximum opportunity for the financial performance component. The non-financial metrics (33⅓% weighting) cover strategic repositioning, client focus/quality of business/innovation, talent management, risk and regulatory, conduct and ethics, and teamwork and leadership. As described in more detail later in this report, the Compensation Committee considered the performance of each Executive Board member against individual metrics related to the above mentioned six broad categories, and determined that as a whole, the Executive Board (excluding the CEO) achieved approximately 89% of the maximum opportunity for the non-financial performance component of the total STI award pool. The overall amount represents, on average, 87% of the pre-defined maximum opportunity of each Executive Board member.

→ Refer to "Executive Board compensation for 2018" for further information on the 2018 STI award financial and non-financial performance assessments.

For the Executive Board compensation framework, the variable compensation elements are comprised of STI and LTI opportunities, which at their maximum potential value represent 78% of total compensation. To align with the Group's longer-term strategy, approximately two-thirds of the variable maximum opportunity is in the form of the LTI award and one-third in the form of the STI award. The cash-based STI award achievement level is assessed against pre-determined financial and non-financial performance targets applicable to the financial year. The share-based LTI award utilizes metrics which are aligned to longer-term shareholder objectives, including relative total shareholder return (RTSR), return on tangible equity (RoTE) and tangible book value per share (TBVPS) performance targets over a three-year period. The number of shares that may vest is determined based on achievement of performance targets at the end of the performance period, and cannot exceed the maximum number of shares granted. The value of the LTI award is further subject to the prevailing share price on the dates the shares are settled.

We believe this framework closely aligns the value delivered under these awards to the shareholder experience over the same time period, as illustrated by the vesting percentages and current value in shares of the 2016 LTI award where 41% of the maximum number of shares were earned after the end of the performance period.

→ Refer to the "2016 LTI awards in the 2016-2018 performance cycle" in Executive Board compensation for 2018 for further information.

CEO compensation

Following a review of Executive Board compensation at the beginning of 2018, the Compensation Committee considered the overall Executive Board compensation design to be appropriate, but recommended an adjustment, which was approved by the Board, to increase the Group CEO's STI maximum opportunity by CHF 1.0 million, from 1.5 times base salary to 1.83 times base salary for 2018. This adjustment is designed to acknowledge the strong performance of Mr. Thiam over the course of his tenure to date and the successful execution of the three-year restructuring program. It represents the first change to Mr. Thiam's maximum opportunity levels since his appointment in 2015. Aside from the CEO, no changes were made to the overall cap on the 2018 STI maximum opportunity for the Executive Board.

Mr. Thiam's proposed total compensation for 2018 of CHF 12.65 million is 13% higher than it was for the prior year, before the voluntary reduction in his 2017 LTI award. This is mainly driven by improved performance, the increase in his STI award maximum opportunity and the higher fair value for the 2018 LTI award, with no change to the LTI maximum opportunity.

→ Refer to "Compensation of the CEO and the highest paid Executive Board member" in Executive Board compensation for 2018 for further information.

Board of Directors compensation

No changes were made to the Board's compensation framework for 2018, which continues to be based on a fixed fee structure with pre-defined fees for Board membership, committee membership and chairing a committee. The fee amounts are set at levels comparable with those at other leading Swiss companies and global financial services firms. With the exception of the Chairman, 50% of the Group-level Board fees are paid in Group shares, subject to blocking restrictions for four years. In line with industry practice, Board fees are not linked to the financial performance of the Group. Fees for specific Board leadership roles are reviewed periodically and adjusted as required. Base Board fees have been unchanged for over 10 years. In the past few years, the Chairman has voluntarily waived all or part of his chair fee. For the 2018 AGM to 2019 AGM period, the Chairman's compensation has returned to the previously approved level, in light of the completion of the Group's restructuring program and return to profitability. Total board fees, including subsidiary board fees, for the 2018 AGM to 2019 AGM period are within the approved amount and 2% higher than the prior period, primarily reflecting an additional Board member.

→ Refer to "Board of Directors compensation" for further information.

Annual review of our compensation framework

During 2018, the Compensation Committee conducted its annual review of the overall compensation framework at Credit Suisse, to ensure that it remains fit for purpose and aligned with the objectives of our compensation strategy. In particular, the Compensation Committee assessed the extent to which the framework (i) aligns pay and performance, (ii) supports a performance culture based on merit, (iii) attracts, retains, rewards and motivates the talented individuals needed for our long-term success as a client-focused and capital-efficient business, (iv) recognizes and rewards excellent short- and long-term performance, and (v) aligns with the Group's values. In addition, the Compensation Committee reviewed market developments to assess whether current practices remain appropriately competitive. As a result of this review, it determined that the overall compensation framework continues to be appropriate for 2019. No changes to its structure are therefore proposed, aside from updating some of the STI performance metrics and performance target levels for the STI and LTI awards in relation to the Executive Board.

2019 STI and LTI awards

For the 2019 STI awards, we have updated the measures to more appropriately reflect the Group's strategy after the restructuring period and the achievement of our previously communicated cost target in 2018. As such, the performance criteria for the 2019 STI awards will consist of adjusted income before taxes (33⅓% weighting), reported RoTE (33⅓% weighting) and a non-financial assessment (33⅓% weighting). RoTE is a key measure of return generation and therefore its inclusion as a performance metric for the STI award, focused on the 2019 financial year, complements the RoTE measure in the LTI award which is measured as an average over a three-year period. Following the successful completion of our three-year cost reduction program, cost management remains an important aspect of our strategy and will be captured by the adjusted income before taxes metric rather than a specific cost target. This update of the performance metrics ensures that management is focused on, and will be rewarded for, successful delivery of our key priorities for 2019.

For the 2019 LTI awards, no changes have been made to the design or the performance metrics, since they continue to reflect the longer-term strategy of the Group. However, the AGM proposal put forward for shareholder approval will be based on the fair value of the 2019 LTI awards at grant date, instead of the maximum opportunity. The rationale for using fair value as the basis for shareholder approval is to align the proposal with the disclosure of Executive Board compensation in the Compensation Report. In addition, the fair value of the LTI awards is closer to the historical vesting of such awards than the maximum opportunity. The AGM invitation and accompanying materials will continue to contain the same level of information regarding the LTI award proposal as provided previously.

Following the recently announced changes to the composition of the Executive Board, the aggregate maximum opportunity for the 2019 LTI awards will be CHF 57.5 million, slightly below the 2018 level, resulting from modifications to the scope of the roles for the incoming members. Further, the two departing Executive Board members will not be granted any entitlements they have with respect to the 2019 STI and LTI awards in their roles as Executive Board members.

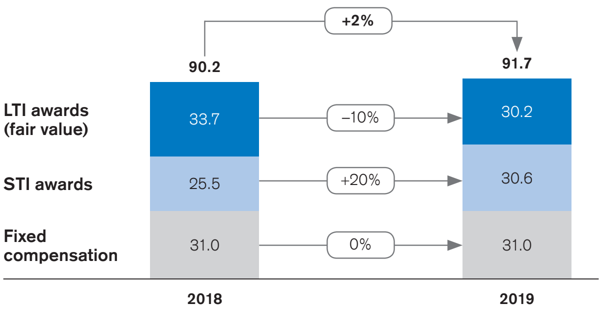
2019 AGM say on pay proposals

At the 2019 AGM on April 26, 2019, we plan to submit the following proposals related to Executive Board and Board of Directors compensation:

- Maximum aggregate amount of CHF 31.0 million in total fixed compensation for the Executive Board for the 2019 AGM to 2020 AGM period – no change compared with the prior year's proposal approved at the 2018 AGM;
- CHF 30.6 million total 2018 STI award to be granted to the Executive Board – 20% higher compared with the prior year's amount approved for the 2017 STI award;
- CHF 30.2 million total 2019 LTI award at fair value at the time of grant, with a maximum opportunity of CHF 57.5 million – CHF 1 million less than the maximum opportunity approved at the 2018 AGM; and
- Maximum aggregate amount of CHF 12.0 million in total compensation for the Board for the 2019 AGM to 2020 AGM period – no change compared with the prior year's proposal approved at the 2018 AGM.

AGM proposals: Executive Board compensation

in CHF million



Shareholder engagement

During 2017, we undertook several rounds of consultation to listen to shareholders and receive feedback on our compensation arrangements. Taking on board the views that we heard, we announced a number of changes in our 2017 Compensation Report to address some key themes on compensation design for the Executive Board and Board of Directors raised by shareholders during this process. The consultative vote on the 2017 Compensation Report received 81% of votes in favor at our 2018 AGM, a material year-on-year increase.

We are of course conscious that there remains room for improvement. With this in mind, we continued to engage with key shareholders and external stakeholders during 2018, both to listen to their views on the changes made in 2018, and to understand any thoughts they had on areas of focus for the Compensation Committee in future years. Going forward, shareholder engagement will remain a key pillar of our annual compensation design process, with discussions on potential future changes in the third quarter, further consultation towards the end of the year, and communication of the compensation framework and proposals in the lead up to the AGM.

On behalf of the Compensation Committee, I would like to thank you for your support and feedback, which we will continue to seek as we review and refine our compensation practices to ensure that they remain fully compliant with all regulatory requirements and aligned with the interests of our shareholders.

Kai S. Nargolwala
Chair of the Compensation Committee
Member of the Board of Directors
March 2019

Compensation design

Compensation strategy and objectives

Consistent with prior years, our key compensation objectives are to maintain compensation practices that:

- foster a **performance culture** based on merit that differentiates and rewards excellent performance;
- **attract and retain employees**, and motivate them to achieve results with integrity and fairness;
- **balance the mix of fixed and variable** compensation to appropriately reflect the value and responsibility of the role performed, and to influence appropriate behaviors and actions;
- promote **effective risk management** practices that are aligned with the Group's compliance and control cultures;
- create a culture that adheres **to high conduct and ethics standards** through a system of applying both malus and rewards;
- encourage **teamwork and collaboration** across the Group;
- achieve a **balanced distribution of profitability between shareholders and employees** over the long term, subject to Group performance and market conditions; and
- take into account the long-term performance of the Group, in order to **create sustainable value for shareholders**.

Executive Board compensation framework for 2018: key elements

	Features	Vesting (year) 2018	2019	2020	2021	2022	2023	Design
Fixed	**Base Salary**							▪ CEO base salary remained at CHF 3 million ▪ Executive Board member base salary remained at no more than CHF 2 million/USD 2 million
Fixed	**Pension and Benefits**							▪ Pension and benefits consistent with local market practice ▪ Other benefits include housing allowances, expense allowances and relocation allowances
Variable	**STI Awards**	Annual performance period	½ cash			½ deferred cash		▪ STI award pool amount determined based on achievement of pre-determined Group financial and non-financial metrics ▪ Payout subject to achievement of threshold, target and maximum performance levels for the performance year, defined as % of total opportunity: Below Threshold 0%; Threshold 25%; Target 67%; Maximum 100% ▪ STI award amount for each Executive Board member is assessed by the CEO based on individualized balanced scorecards. Based on this assessment, the Compensation Committee makes proposals to the Board for the approval of the final STI award amounts ▪ Maximum opportunity levels (as a multiple of base salary): – ExB opportunity range: 0.75-2.50 – ExB average maximum opportunity: 1.36 – CEO opportunity: 1.83
Variable	**LTI Awards**	Three-year performance period Rewards achievement of long-term business plan and long-term return for shareholders			⅓ shares	⅓ shares	⅓ shares	▪ Payout for financial metrics subject to threshold, target and maximum performance levels over a three-year period, defined as % of total opportunity: Below Threshold 0%; Threshold 25%; Target 67%; Maximum 100% ▪ Assessed against group metrics (RoTE, TBVPS, RTSR) at the end of the three-year period ▪ Maximum opportunity levels (as a multiple of base salary): – ExB opportunity range: 1.25-4.25 – ExB average maximum opportunity: 2.32 – CEO opportunity: 2.50
		Vesting over 5 years						
	Minimum shareholding requirement[1]							▪ CEO: 500,000 shares ▪ Other Executive Board members: 300,000 shares

Note: Individuals in certain jurisdictions may be subject to conditions other than those outlined above in order to comply with local legal or regulatory requirements.

1 The thresholds include all Group shares held by or on behalf of the Executive Board members, including unvested share-based awards. Executive Board members are restricted from selling shares, or from receiving their share-based awards in the form of cash, until they fulfill the minimum share ownership requirements.

The key changes introduced for 2018 include:

- **Revised metrics** for assessing Executive Board performance, including **removal of capital-based performance metrics** and use of **only Group-level metrics**
- **Reduced STI and LTI payout levels** for achievement of target performance
- **Reduced payout for below median RTSR ranking** and zero payout for a bottom quartile ranking
- **Increased shareholding requirements** (500,000 shares for the CEO and 300,000 shares for other Executive Board members)

→ Refer to "Executive Board compensation for 2018" for further information.

Determination of Group variable incentive compensation pool

The Group variable incentive compensation pool for all employees including the CEO and the Executive Board is determined on an annual basis, with accruals made throughout the year. The process for determining variable incentive compensation is performed at the Group level, as well as the divisional and functional levels, as shown in the illustrative example below.

Initial pool size	Other factors used to determine adjustments to the Group, divisional and corporate function pools				Compensation Committee review	Board approval of final pool
Financial drivers ■ Economic contribution[1] ■ Revenue growth ■ Adjusted income before taxes ■ Adjusted operating expenses	Strategic objectives	Relative performance vs peers	Control function review	Market position and trend	Consistency with compensation objectives	
Initial pool size estimated based on a percentage of economic contribution[1] as the primary financial driver	Progress on achievement of strategic objectives may impact the size of the pools	Market out- or under-performance is assessed	Adjustments for feedback on regulatory, audit, disciplinary and risk-related issues	Adjustments may be required to maintain competitive compensation levels	Compensation Committee discretion may be applied in exceptional cases	The Board reviews and approves the Compensation Committee's recommendation on the Group and divisional pools

1 Economic contribution is measured as adjusted income before taxes excluding variable incentive compensation expense, after deducting a capital usage charge that is calculated based on regulatory capital. For 2018, Group and divisional results are adjusted to exclude items such as goodwill impairment, real estate transactions, business sales, restructuring expenses and major litigation provisions. Regulatory capital for compensation purposes was defined for each division as the higher of 10% of average divisional Basel III risk-weighted assets and 3.5% of average divisional leverage exposure. This measure of economic contribution considers the profitability of the divisions and the Group and the capital utilized to achieve this profitability.

→ Refer to "Determination of variable incentive compensation pools" in Group compensation – Compensation framework for further information.

Group employees' compensation framework for 2018: key elements

The overall structure and design remains the same as the prior year.

	Features	Vesting (year) 2018	2019	2020	2021	2022	Design
Fixed	Base Salary						■ Based on skills, qualifications, relevant experience, responsibilities and external market factors ■ Role-based allowances apply to certain Material Risk Takers and Controllers (MRTC)
Fixed	Pension and Benefits						■ Pension and benefits consistent with local market practice ■ Includes country-specific pension schemes, certain allowances, subsidizations and insurances
Variable	Cash Award						■ Employees with total compensation below CHF/USD 250,000 receive their full amount of variable compensation in the form of an immediate cash award
Variable	Share Awards			⅓	⅓	⅓	For total compensation of CHF/USD 250,000 or higher: ■ Deferred share awards with no additional performance conditions
Variable	Performance Share Awards			⅓	⅓	⅓	■ Managing Directors (MD) and MRTC receive deferred share awards with performance conditions as part of their deferred compensation
Variable	Contingent Capital Awards (CCA)						■ MD and Directors receive loss-absorbing contingent capital awards ■ At settlement, contingent capital instrument or cash payment based on the fair value of the CCA ■ Prior to settlement, conditional right to receive semi-annual cash payments of interest equivalents

Note: Individuals in certain jurisdictions may be subject to conditions other than those outlined above in order to comply with local legal or regulatory requirements.

→ Refer to "Group compensation" for further information.

Compensation governance

The Compensation Committee

The Compensation Committee is the supervisory and governing body for compensation policies, practices and plans. In designing and setting compensation, the Compensation Committee aims to make decisions in the best interests of the Group and also to align the interests of the Group's employees to those of shareholders. The Compensation Committee reviews proposals regarding Group, Executive Board and Board compensation, and makes recommendations to the Board for approval. Total Executive Board compensation and Board compensation are also subject to shareholder approval pursuant to the Swiss Ordinance Against Excessive Compensation with respect to Listed Stock Corporations (Compensation Ordinance) and the Articles of Association of Credit Suisse Group AG (AoA).

The Compensation Committee consists of at least three members of the Board, all of whom must be independent. The members during 2018 were Kai S. Nargolwala (Chair), Iris Bohnet, Andreas N. Koopmann and Alexandre Zeller. The Board has applied the independence criteria of the SIX Swiss Exchange Directive on Information relating to Corporate Governance, Swiss Financial Market Supervisory Authority FINMA (FINMA), the Swiss Code of Best Practice for Corporate Governance, and the listing standards of the New York Stock Exchange (NYSE) and the Nasdaq Stock Market (Nasdaq), in determining that all of these individuals are independent.

→ Refer to "Independence" in IV – Corporate Governance – Board of Directors for more information on how the Group determines the independence of its Board members.

Compensation Committee activities

The Chairman and the CEO may attend the Compensation Committee meetings, and the Compensation Committee Chair determines the attendance of other Board members, Executive Board members, senior management, compensation advisers and external legal counsel, as appropriate. The Chairman, CEO, Executive Board members and senior management do not participate in discussions which relate to their own compensation.

In addition to the 26 investor meetings held by the Compensation Committee Chair, during 2018, the Compensation Committee held 9 meetings and calls, with an overall attendance rate of 92%. The Compensation Committee's focus areas in 2018 are summarized in the following table:

Compensation Committee activities in 2018

	Jan	Feb	Mar	Apr	Jun	Jul	Aug	Oct	Dec
Compensation governance, design and disclosure									
Review of compensation policy and charter updates					■		■	■	■
Review of Compensation Report			■					■	■
Review and refinement of Executive Board compensation design			■		■		■	■	■
Review of Group compensation structure and award plans	■		■	■			■	■	
Compensation Committee self-assessment and focus areas	■								
Risk and regulatory									
Review of input from control functions		■					■		■
Review of any disciplinary events/potential application of malus	■	■	■	■	■	■	■	■	■
Review of regulatory developments				■	■		■		■
Annual compensation review									
Accruals and full year forecast of variable incentive compensation pools				■		■		■	■
Performance assessment and overall Group pool recommendation	■	■							■
CEO and Executive Board performance objectives and target setting		■	■						■
CEO and Executive Board performance assessment and awards		■	■	■					■
Review of Board fees		■					■		
External									
Review of shareholder engagement and feedback				■	■		■		■
Review of market trends				■	■			■	■
Review of benchmarking data				■				■	■

Advisers to the Compensation Committee

The Compensation Committee is authorized to retain external advisers to provide support as it carries out its responsibilities. Deloitte LLP (Deloitte) has been retained to assist the Compensation Committee in ensuring that the Group's compensation programs remain competitive, responsive to regulatory developments and in line with the compensation policy. Deloitte has appointed a senior consultant to advise the Compensation Committee. Apart from assisting the Compensation Committee, this senior consultant does not provide any other services to the Group. The Compensation Committee also obtained external legal advice during 2018 on various matters relating to compensation policy and design. Prior to appointment, the Compensation Committee conducted an independence assessment of its advisers pursuant to the rules of the US Securities and Exchange Commission (SEC) and the listing standards of the NYSE and the Nasdaq.

Other aspects of compensation governance

Compensation policy

The compensation policy applies to all employees and compensation plans of the Group. It contains a detailed description of the Group's compensation principles and objectives as well as the compensation programs. It also sets out the standards and processes relating to the development, management, implementation and governance of compensation. The compensation policy is available at *credit-suisse.com/compensationpolicy*.

Approval authority

The approval authorities for setting the compensation policy and compensation for different groups of employees are defined in the Group's Organizational Guidelines and Regulations (OGR) and the Compensation Committee charter available at *credit-suisse.com/governance*.

Action	Compensation Committee	Board
Establish or change the Group's compensation policy	R	A
Establish or change compensation plans	R	A
Set variable incentive compensation pools for the Group and the divisions	R	A
Determine Executive Board compensation, including for the CEO	R	A [1]
Determine Board compensation, including for the Chairman	R	A [1]
Determine compensation for the Head of Internal Audit	A [2]	n/a
Determine compensation for MRTC and other selected members of management	A	n/a

R = recommendation; A = approval

1 Subject to shareholder approval requirement pursuant to the Compensation Ordinance and the AoA.

2 In consultation with the Audit Committee Chair.

Risk and control considerations

During its annual review of the Group's performance, the Compensation Committee considers input from the Risk Committee Chair with respect to risk considerations, and the Audit Committee Chair with respect to internal control considerations. The Compensation Committee also considers input from various corporate functions including Compliance and Regulatory Affairs, General Counsel, Human Resources, Internal Audit, Product Control and Risk Management, regarding control and compliance issues and any breaches of relevant rules and regulations or the Group's Code of Conduct.

To meet regulatory guidelines regarding employees engaged in risk-taking activities, the Compensation Committee reviews and approves the compensation for employees identified as Material Risk Takers and Controllers (MRTC). The Risk Committee is involved in the review process for MRTC compensation.

→ Refer to "Focus on risk and control" in Group compensation for further information.

In order to ensure that the above functions can perform their oversight of risk and control activities effectively, the total amount of the variable incentive compensation pool for the corporate functions is not linked to the performance of the particular divisions that employees of the corporate functions support or oversee, but takes into account the Group-wide financial performance, measured in the form of Group economic contribution and non-financial factors. Therefore, employees working in the corporate functions, including those performing control functions, are remunerated independently from the performance of the businesses they oversee and support. As with the business divisions, the assessment of the corporate functions takes into account risk, control, compliance and ethical considerations and relative performance compared to peers, as well as the market and regulatory environment.

→ Refer to "Determination of the variable incentive compensation pools" in Group compensation for further information.

Performance criteria and target setting

At the beginning of the year, as part of the annual compensation review, the Compensation Committee defines the performance criteria and performance targets that will be applied to determine the Executive Board's variable incentive compensation. For the STI awards, the performance criteria and performance levels are set on an annual basis, and are designed to reward progress towards the achievement of the Group's annual objectives in the financial and strategic plan. For the LTI awards, the performance criteria and performance levels are set for a prospective three-year period, designed to reward achievement of the longer term business plan and the enhancement of shareholder returns. In setting the threshold, target and maximum performance levels, the Compensation Committee takes into account the Group's ambitious financial plan, prior-year performance, analyst expectations and any publicly stated targets, in order to set performance levels which are challenging and motivating for the Executive Board. The performance criteria and performance levels are presented to the Board for approval before implementation.

Executive Board compensation for 2018

Compensation outcomes for 2018

2018 STI awards

The 2018 STI awards were designed to reward the achievement of annual objectives based on performance in 2018. The STI award payout amount is determined based on pre-defined financial criteria and performance levels which are linked to our strategic plan, as well as non-financial criteria related to topics such as delivery of strategic initiatives, leadership and culture and risk and compliance. Taking into account the quantitative achievements against the target performance levels, as well as the qualitative assessment outlined further in this section, the Compensation Committee recommended a total STI award amount of CHF 30.56 million for the Executive Board. This represents, on average, 87% of the STI maximum opportunity pre-defined for each Executive Board member. The 2018 STI compensation will be submitted for shareholder approval at the 2019 AGM.

Assessment of performance against financial criteria

The financial criteria and corresponding 2018 outcomes are shown in the following table and can be summarized as follows:

- Adjusted income before taxes of CHF 4.2 billion was up 52% compared with the prior year, and between the target and maximum performance levels; and
- Adjusted operating cost base of CHF 16.2 billion at average 2017 foreign exchange rates (as defined further in footnote 1 of the table below), surpassing the maximum performance level which had been set at CHF 16.9 billion.

STI awards: quantitative performance assessment

	Weighting	Performance levels			2018 actual	Payout
		Threshold	Target	Maximum		
Financial criteria (CHF billion)						
Adjusted income before taxes	33⅓%	2.2	4.1	5.5	4.2	69%
Adjusted operating cost base	33⅓%	18.0	17.4	16.9	16.2 [1]	100%
Subtotal	**66⅔%**					**85%**
Non-financial criteria (average)						
Non-financial metrics	33⅓%	See separate description			–	91%
Total	**100%**					**87%**

Adjusted results are non-GAAP financial measures which exclude certain items included in our reported results. Refer to "Reconciliation of adjusted results" in I – Information on the company – Strategy and II – Operating and financial review – Credit Suisse for further information.

1 The performance levels relating to adjusted operating cost base were set on the basis of average 2017 foreign exchange rates rather than constant 2015 foreign exchange rates. Therefore, the adjusted operating cost base for 2018 before a foreign exchange adjustment of CHF 16,200 million was adjusted by a foreign exchange impact of CHF 35 million for a total of CHF 16,235 million.

Assessment of performance against non-financial criteria

The Compensation Committee considered a range of quantitative and qualitative metrics for each of the non-financial categories for assessing the Executive Board's performance, and the key achievements against these metrics are summarized below. In particular, the Compensation Committee noted the profitable growth during 2018, as well as market-share gains, reflecting the successful execution of the Group's strategy and collaboration amongst the divisions. The Executive Board also continued to drive the emphasis on conduct and ethics within their respective divisions and functions, as well as promote the recruitment, development and retention of talent through various Group-wide initiatives. As such, the Compensation Committee determined that, as a group, the Executive Board had achieved 91% of the maximum opportunity with respect to the non-financial assessment. The Executive Board's non-financial performance evaluation was based on pre-defined criteria according to the following six categories.

Non-financial assessment for the Executive Board

Strategic Repositioning
- Achieved net new assets from Wealth Management (relating to Swiss Universal Bank Private Clients, International Wealth Management Private Banking and Asia Pacific Private Banking within Wealth Management & Connected) of CHF 34.4 billion for 2018
- Reduced adjusted operating expenses in the majority of business divisions and corporate functions compared with 2017 to meet their cost savings objectives, contributing to the successful achievement of the Group's adjusted operating cost base target of below CHF 17 billion, measured at constant 2015 foreign exchange rates
- Achieved a return on regulatory capital from the Core businesses of 11.1% compared with 9.3% in 2017
- Closed the Strategic Resolution Unit at the end of 2018, with a significantly reduced impact on profits, risk-weighted assets and leverage exposure

Client Focus/Quality of Business/Innovation
- Received various industry awards that acknowledge excellence in client service, including Euromoney Awards for Best Bank in Switzerland, Best Investment Bank in Switzerland, Best Bank for Wealth Management in Western Europe, Central and Eastern Europe, the Middle East and Latin America, Best Investment Bank in Asia, and a Global Award for Best Emerging Markets Bank
- Achieved high client satisfaction survey results, especially in International Wealth Management
- Expanded client footprint, as well as maintained top two position in Global Leveraged Finance and top three in Global Financial Sponsors (Dealogic)
- Maintained #1 position in US securitization (Thomson Reuters) and in European Prime Brokerage (EuroHedge) and various awards such as "Most Innovative Bank for Securitization" from The Banker and "Overall Best Securitization Bank" from GlobalCapital
- Maintained #1 position in Swiss Investment Banking for Mergers & Acquisitions (Dealogic), Debt Capital Markets (Thomson Reuters) and Equity Capital Markets (Dealogic)
- Improved optimization of IT resources, including decommissioning of approximately 1,300 applications since 2015 and approximately 33% fewer change-related incidents over the period 2016 to 2018

Talent Management
- Implemented several programs for the development of talent and the next generation of leaders
- Improved employee engagement scores, with 94% of respondents agreeing with the statement "I am proud to work at Credit Suisse" (based on an internal Conduct and Ethics Pulse Survey)
- Increased the ratio of women promoted to the Assistant Vice President, Vice President and Director levels from 36% in 2017 to 38% in 2018

Risk and Regulatory
- Actively supported and contributed to the building and improvement of relationships with key regulators
- Continued to improve models and systems in our efforts to better assess and monitor risks
- Actively managed operational and business risks

Conduct and Ethics
- Strengthened the global conduct and ethics culture throughout the organization through the implementation of training programs, system and process control improvements, and through leading by example
- Reduced the number of compliance incidents with a high severity rating
- Implemented several Group-wide initiatives to ensure consistent emphasis and approach to conduct and ethics topics

Teamwork and Leadership
- Continued progress to deepen the collaboration amongst the businesses, including a strong International Trading Solutions (ITS) business model

→ Adjusted results are non-GAAP financial measures which exclude certain items included in our reported results. Refer to "Reconciliation of adjusted results" in I – Information on the company – Strategy and II – Operating and financial review – Credit Suisse for further information.

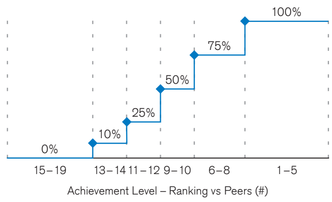
2018 LTI awards

The 2018 LTI awards approved by shareholders at the 2018 AGM have a total maximum opportunity of CHF 58.5 million. This represents the maximum amount payable, based on share price at grant, if all the maximum performance levels under the financial measures (33⅓% weighting each for three-year average reported RoTE and TBVPS) are achieved, and if the Group's RTSR (33⅓% weighting) is ranked within the top five of the peer group at the end of the three-year average performance measurement period. Performance will be measured and disclosed at the end of the three-year performance period. The awards provide for a target payout of 67% of the maximum opportunity, which was reduced from the 2017 LTI award target payout of 80% of the maximum opportunity. The fair value of the 2018 LTI awards at the time of grant was CHF 33.73 million, as determined by one of the major international accounting firms.

2018 LTI awards

	Weighting	Performance targets Threshold	Target	Maximum
Performance criteria				
Three-year average reported RoTE	33⅓%	5.0%	7.5%	11.0%
Three-year average TBVPS (CHF)	33⅓%	15.00	16.00	18.00
RTSR	33⅓%	See "RTSR payout levels"		

RTSR payout levels (%)



→ Refer to "Compensation design" and the 2017 Annual Report for further information on the 2018 LTI awards.

Compensation of the CEO and highest paid Executive Board member

As part of the review of Executive Board compensation conducted at the beginning of the year, the Board of Directors approved the Compensation Committee's recommendation to increase the CEO's 2018 STI maximum opportunity by CHF 1.0 million, to 1.83 times base salary, compared with 1.50 times base salary for 2017. This adjustment took into account the strong performance of Mr. Thiam over the course of his tenure to date, and represents the first change to Mr. Thiam's maximum opportunity levels since 2015.

The compensation awarded to the CEO and highest paid Executive Board member, Tidjane Thiam, comprised of CHF 3.00 million base salary, which remained unchanged compared with the prior year, a 2018 STI award of CHF 4.94 million representing 90% of the maximum opportunity and a 2018 LTI award with a maximum opportunity of CHF 7.50 million and a fair value of CHF 4.36 million at the time of grant. In terms of realized compensation for 2018, Mr. Thiam received a base salary of CHF 3.00 million, pension and other benefits of CHF 0.35 million, and a CHF 2.47 million 2018 STI award in non-deferred cash. No dividend equivalents were paid.

The assessment of Mr. Thiam's performance against the financial criteria is based on the same criteria and outcomes as described earlier for the Executive Board. In terms of the non-financial criteria, the same six broad categories as described earlier for the Executive Board also apply to the CEO.

Executive Board compensation (audited)

in	Base salaries and role-based allowances	Dividend equivalents [1]	Pension and other benefits [2]	**Total fixed compensation**	STI awards (Non-deferred) [3]	STI awards (Deferred) [4]	**Total STI awards**	**LTI awards fair value (Deferred)** [5]	**Total variable compensation**	**Total compensation** [6,7]
2018 (CHF million)										
12 members	26.35	0.77	2.08	**29.20**	15.10	15.46	**30.56**	**33.73**	**64.29**	**93.49**
% of total compensation				**32%**			**33%**	**35%**	**68%**	
of which CEO: Tidjane Thiam	3.00	0.00	0.35	**3.35**	2.47	2.47	**4.94**	**4.36**	**9.30**	**12.65**
% of total compensation				**26%**			**39%**	**35%**	**74%**	
2017 (CHF million)										
12 members	26.34	0.56	1.99	**28.89**	12.54	12.92	**25.46**	**15.55**	**41.01**	**69.90**
% of total compensation				**42%**			**36%**	**22%**	**58%**	
of which CEO: Tidjane Thiam	3.00	0.22	0.25	**3.47**	1.99	1.99	**3.98**	**2.25**	**6.23**	**9.70**
% of total compensation				**36%**			**41%**	**23%**	**64%**	

1 Dividend equivalents were paid in cash, consistent with dividends paid on actual shares.
2 Other benefits consist of housing allowances, expense allowances and relocation allowances.
3 STI non-deferred awards for 2018 comprised CHF 14.74 million (for 2017 CHF 12.16 million) cash, with a further CHF 0.36 million (for 2017 CHF 0.38 million) granted as blocked shares to Mr. Mathers, to comply with regulatory requirements given that he was categorized as UK PRA Code Staff during 2018 and 2017.
4 STI deferred awards for 2018 comprised CHF 14.93 million (for 2017 CHF 12.34 million) in deferred cash awards as well as CHF 0.53 million (for 2017 CHF 0.58 million) granted as share awards to Mr. Mathers, to comply with regulatory requirements given that he was categorized as UK PRA Code Staff during 2018 and 2017.
5 The fair value of the LTI awards as of the date of grant is determined using a probabilistic valuation method applied by one of the major international accounting firms. The awards have a total maximum opportunity of CHF 58.50 million for 2018 and CHF 31.2 million (post the 40% voluntary reduction) for 2017, which were the amounts approved by shareholders at the 2018 AGM and 2017 AGM, respectively.
6 For the total compensation awarded to the members of the Executive Board, the Group made payments of CHF 3.2 million in 2018 and CHF 3.05 million in 2017 to cover the mandatory employer social security contributions as required under the social security laws applicable to the individual Executive Board members based on their domicile and employment status. These contributions do not form part of the Executive Board members' compensation.
7 No guaranteed bonuses, sign-on or replacement awards were paid to Executive Board members for 2018 and 2017.

STI awards: 2018 non-financial assessment for the CEO
In assessing Mr. Thiam's performance, the Compensation Committee considered a range of quantitative and qualitative metrics for each of the non-financial categories. In particular, the Compensation Committee noted his leadership in the restructuring of the Group, creating a client-focused and compliant culture and steering the Group towards a significant turnaround in performance. The Compensation Committee determined that Mr. Thiam had achieved the maximum performance level and his key achievements against the non-financial metrics are summarized below.

Non-financial assessment for the CEO

Strategic Repositioning
- Mr. Thiam has led the rebalancing of the Group's activities, including the right-sizing of the Global Markets division and the shift of capital towards the higher growth and less volatile Wealth Management-related and Investment Banking & Capital Markets businesses
- He has continued to oversee the maintenance of the Group's strong capital position, and has supervised the successful closure of the Strategic Resolution Unit

Client Focus/Quality of Business/Innovation
- Mr. Thiam has continued to drive a culture of client focus, reflected by high client satisfaction results and positive net new assets in each quarter of 2018
- He has overseen the growth of the investment banking businesses in key segments, with a top five market position in Initial Public Offerings and top two in Leveraged Finance (Dealogic)
- Under his leadership, the Impact Advisory and Finance (IAF) department, which aims to facilitate initiatives for clients which have a positive economic and social impact, has reached USD 7.1 billion of assets under administration invested according to sustainability criteria and surpassed USD 1 billion in Asia in 2018
- He has received industry recognition for his leadership and focus on excellence in client service, named as Banker of the Year 2018 by Euromoney

Talent management
- Mr. Thiam has been instrumental in driving several people development and diversity initiatives
- Since his appointment to the role of CEO, the female Managing Director promotion ratio has increased by 47%

Risk and Regulatory
- Mr. Thiam has continued to strengthen the relationships with the Group's key regulators
- Under his leadership, there have been steady reductions in the number of adverse risk, regulatory and sustainability risk events

Conduct and Ethics
- Mr. Thiam has continued to strengthen the global conduct and ethics culture through a formalized conduct and ethics framework and Group-wide training programs
- He has overseen the significant upgrade of the Group's compliance and control framework, with greater investment in compliance talent, implementation of new compliance tools such as Single Client View and trader/relationship manager surveillance tools, as well as more than 10,000 control issues and improvements closed across all Group-wide risks since his appointment
- He has led by example in terms of personal commitment to the Group's conduct and ethics standards

Teamwork and Leadership
- Mr. Thiam has fostered a spirit of teamwork and collaboration amongst the Executive Board members, which has filtered throughout the organization
- He has continued to steer an integrated approach between the wealth management and investment banking businesses, as evidenced by the strong ITS business model

Utilization of Executive Board compensation approved at the 2018 AGM

At the 2018 AGM, shareholders approved a maximum aggregate amount of fixed compensation to be paid to members of the Executive Board for the period from the 2018 AGM to the 2019 AGM of CHF 31.0 million. By the time of the 2019 AGM, a total of approximately CHF 29.3 million will have been paid to Executive Board members with respect to fixed compensation. Fixed compensation includes base salaries, role-based allowances, dividend equivalents, pension and other benefits.

At the 2018 AGM, shareholders also approved an aggregate maximum amount of LTI compensation to be granted to members of the Executive Board for the 2018 financial year with a maximum amount of CHF 58.5 million, which was subsequently awarded to the Executive Board members. The amount of the 2018 LTI award earned by each of the Executive Board members can only be determined after the completion of the three-year performance period.

In line with the Compensation Ordinance and as specified in the AoA, if new members join the Executive Board or members of the Executive Board are promoted during a period for which compensation has already been approved by shareholders, a further 30% of the aggregate amounts already approved may be used for the compensation of such members. No such additional amount was required in 2018.

Supplementary information

Cash settlement of share awards
The Executive Board members are permitted to elect, subject to minimum shareholding requirements, at a predefined date in advance of settlement, to receive their vested share-based awards in the form of shares, cash or 50% in the form of shares and 50% in cash, in each case based on the Group share price at the time of settlement. An election to receive cash is subject to reversal if at the time of settlement the Group share price is less than 75% of the share price at the time of election. The timing and pricing of settlement will be the same as under the previous award plan and as under the plans of the non-Executive Board population.

Contract lengths, termination and change in control provisions
All members of the Executive Board have employment contracts with the Group which are valid until terminated. The notice period for termination of employment by either the Group or the respective Executive Board member is six months. Executive Board members may be held to a non-compete period of up to one year and may be compensated for this period of time by mutual agreement. In the event of termination, there are no contractual provisions that allow for the payment of severance awards to Executive Board members beyond the regular compensation awarded during the notice period. Pre-defined conditions for all employees, including Executive Board members, apply for the payment of outstanding deferred compensation awards, depending on whether the termination of employment was voluntary, involuntary or the result of a change in control. There are no other contracts, agreements or arrangements with the members of the Executive Board that provide for other types of payments or benefits in connection with termination of employment that are not generally available to other employees of the Group.

In the case of a change in control, the treatment of outstanding awards for all employees, including Executive Board members, will be determined by the Board upon recommendation of the Compensation Committee with the aim of maximizing shareholder value, subject to circumstances and prevailing market conditions. There are no provisions in the employment contracts of Executive Board members or any other pre-determined arrangements that require the payment of any type of extraordinary benefits, including special severance awards or transaction premia, in the case of a change in control.

Former Executive Board members (audited)
During 2018, no former Executive Board member received any compensation for services they continued to perform after they stepped down from the Executive Board, compared with CHF 1.4 million in 2017. Further, no payments were made to former Executive Board members pursuant to non-compete arrangements. Some former members of the Group's most senior executive body who no longer provide services to the Group are still eligible to receive office infrastructure and secretarial support. These services are based on existing resources and are not used on a regular basis.

Other outstanding awards
As of December 31, 2018, the outstanding cash-based deferred compensation awards granted to certain Executive Board members in prior years comprised of the Capital Opportunity Facility (COF), CCA, LTI plan (2013) and deferred STI cash awards. The cumulative value of such cash-based awards at their grant dates was CHF 28.9 million compared with CHF 29.3 million as of December 31, 2018. These amounts also include the cash value of dividend equivalents related to unvested share awards at their respective grant dates and at December 31, 2018.

Minimum shareholding requirements
As of December 31, 2018, the CEO and all Executive Board members fulfilled the minimum shareholding requirements of 500,000 shares and 300,000 shares, respectively, as measured against the number of shares owned plus the number of unvested awards calculated on the basis of maximum opportunity.

Executive Board holdings and values of deferred share-based awards by individual

end of	Number of owned shares [1]	Number of unvested awards (at maximum opportunity) [2]	Number of owned shares and unvested awards (at maximum opportunity)	Value (CHF) of unvested awards at grant date (at maximum opportunity)	Value (CHF) of unvested awards at year end (at fair value) [3]
2018					
Tidjane Thiam	64,302	990,706	1,055,008	16,430,736	6,923,084
James L. Amine	426,726	1,046,190	1,472,916	17,300,812	7,049,362
Pierre-Olivier Bouée	74,079	512,085	586,164	8,287,028	4,019,900
Romeo Cerutti	269,373	389,685	659,058	6,423,655	2,734,410
Brian Chin	431,274	1,137,731	1,569,005	18,494,683	8,600,260
Peter Goerke	21,953	342,324	364,277	5,655,877	2,438,237
Thomas Gottstein	118,976	402,042	521,018	6,752,150	2,831,436
Iqbal Khan	70,060	519,389	589,449	8,757,970	3,530,037
David R. Mathers	84,360	793,632	877,992	13,180,647	5,973,132
Joachim Oechslin	61,092	406,852	467,944	6,771,566	2,779,441
Helman Sitohang	264,737	822,060	1,086,797	13,497,946	5,857,016
Lara Warner	2,036	469,641	471,677	7,989,249	3,102,330
Total	**1,888,968**	**7,832,337**	**9,721,305**	**129,542,319**	**55,838,645**
2017					
Tidjane Thiam	1,967	1,132,835	1,134,802	20,298,771	13,941,708
James L. Amine	382,106	1,098,488	1,480,594	18,110,327	11,694,777
Pierre-Olivier Bouée	38,204	439,832	478,036	7,200,011	5,345,214
Romeo Cerutti	199,630	410,871	610,501	6,945,908	4,389,711
Brian Chin	234,328	1,098,757	1,333,085	17,798,557	16,800,518
Peter Goerke	21,953	282,112	304,065	4,750,031	2,985,514
Thomas Gottstein	–	354,275	354,275	6,009,654	3,639,767
Iqbal Khan	25,135	379,846	404,981	6,412,346	4,016,413
David R. Mathers	52,672	704,359	757,031	11,723,886	7,726,820
Joachim Oechslin	–	386,390	386,390	6,627,551	4,027,112
Helman Sitohang	394,737	826,572	1,221,309	13,516,027	9,278,836
Lara Warner	2,036	325,449	327,485	5,501,327	3,445,577
Total	**1,352,768**	**7,439,786**	**8,792,554**	**124,894,396**	**87,291,967**

1 Includes shares that were initially granted as deferred compensation and have vested.
2 Includes unvested shares originating from LTI awards calculated on the basis of maximum opportunity for awards that have not reached the end of their three-year performance period, given that the actual achievement level and associated number of unvested shares cannot be determined until the end of the performance period.
3 Includes the value of unvested LTI awards, which was determined based on the number of shares at fair value at the time of grant, multiplied by the share price at the end of the year.

Executive Board outstanding deferred compensation awards

in / end		Total outstanding end of 2017	Granted in 2018	Paid out in 2018	Ex post explicit adjustments	Ex post implicit adjustments	**Total outstanding end of 2018**	% of which exposed to ex post explicit adjustments
Executive Board (CHF million)								
CCAs	Cash-based	7	–	(3)	–	(1)	3	100%
Other cash awards [1]	Cash-based	7	12	(3)	(1)	0	15	100%
Share awards [2]	Share-based	90	57	(10)	0	(51)	86	100%
Performance share awards	Share-based	16	–	(10)	–	(2)	3	100%
CCA share awards	Share-based	24	–	(6)	(1)	(6)	10	100%
Total		**143**	**69**	**(33)**	**(1)**	**(61)**	**117**	

1 Includes the deferred cash portion of STI awards.
2 Includes outstanding LTI awards at maximum opportunity.

Executive Board loans (audited)

The majority of loans outstanding to Executive Board members are mortgages or loans against securities. Such loans are made on the same terms available to employees under the Group's employee benefit plans. Pursuant to the AoA, each Executive Board member may be granted individual credit facilities or loans up to a maximum of CHF 20 million. As of December 31, 2018, 2017 and 2016, outstanding loans to Executive Board members amounted to CHF 33 million, CHF 26 million and CHF 25 million, respectively. The number of individuals with outstanding loans at the beginning and the end of 2018 was 8 and 9, respectively, and the highest loan outstanding was CHF 6 million to Mr. Sitohang.

All mortgage loans to Executive Board members are granted either with variable or fixed interest rates over a certain period. Typically, mortgages are granted for periods of up to ten years. Interest rates applied are based on refinancing costs plus a margin, and interest rates and other terms are consistent with those applicable to other employees. Loans against securities are granted at interest rates and on terms applicable to such loans granted to other employees. The same credit approval and risk assessment procedures apply to Executive Board members as for other employees. Unless otherwise noted, all loans to Executive Board members were made in the ordinary course of business and substantially on the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons and in consideration of the terms which apply to all Group employees. These loans did not involve more than the normal risk of collectability or present other unfavorable features.

→ Refer to "Banking relationships with Board and Executive Board members and related party transactions" in IV – Corporate Governance – Additional information for further information.

2016 LTI awards in the 2016-2018 performance cycle

As disclosed in the 2015 Compensation Report, we introduced a three-year performance-based LTI award in 2016 with a combination of Group and division-specific financial metrics, as well as an RTSR component (40% weighting). The initial number of shares granted was calculated by dividing the LTI maximum opportunity by the volume-weighted average share price for the 10 trading days following the release of the 2015 annual results, consistent with all other share awards granted to Group employees. Reflecting the share price under-performance over the 2016-2018 performance measurement period, the RTSR component resulted in zero payout, and taking into consideration the performance against the financial criteria, the number of shares earned based on performance conditions represents 41% of the maximum opportunity for the Executive Board, in aggregate. For the CEO, the number of shares earned based on performance conditions over the three-year period (payout level) represents 36% of his maximum opportunity, and for the divisional and function heads, the payout levels range from 36% to 62% of the individual maximum opportunities. The impact of share price movements since the grant date is illustrated in the diagram below, with the value of the 2016 LTI award based on the share price at the end of 2018 being 25% of the maximum opportunity. The LTI award vests in three equal tranches on the third, fourth and fifth anniversaries of the grant date. The final value of the awards at delivery may differ from the value at the end of 2018 due to subsequent share price movements.

Vesting of 2016 LTI awards

The number of shares initially granted was determined by dividing the LTI award maximum opportunity by the share price at the time of grant.	**100%** **LTI award maximum opportunity**
The percentage of shares earned is based on the achievement of performance targets over the three-year performance period.	**41%** **Achievement of performance targets**
Shares vest in three equal tranches on the third, fourth and fifth anniversaries of the grant date. Based on the share price at the end of 2018, the value of these shares was 25% of the 2016 LTI maximum opportunity.	**25%** **Value of earned shares based on share price as of 31 December 2018**

2016 LTI awards: performance against targets

Performance criteria	Target performance level	Weighting [1]	2018 result	Payout level (% of maximum opportunity) 0%	Threshold 25%	Target 80%	Maximum 100%
Group metrics (applicable to all Executive Board members)							
Relative Total Shareholder Return (RTSR) [2]		40%	Ranked 17th	■			
Look-through CET1 ratio (%)	13.0%	13.3%	12.7% [3]			■	
CET1 leverage ratio (%)	3.5%	13.3%	4.1%				■
Adjusted operating cost base (CHF billion)	18.0	13.3%	16.5 [4]				■
Operating free capital generation (applicable to CEO and Functional heads)							
Operating free capital generation (CHF billion) [5]	6.0	20.0%	2.0	■			
Divisional metrics (applicable to Divisional heads)							
Various division-specific metrics (average)		20.0%			■		

1 Due to the nature of the role, the weighting of the Group and divisional metrics is different for the Executive Board member who is categorized as UK PRA Code Staff.
2 RTSR is measured over the three-year performance period 2016-2018.
3 The look-through CET1 ratio excludes CHF 2.2 billion of additional risk-weighted assets arising from Basel III rule changes effective in 2018 relating to banking book securitizations that were not yet in place when the 2016 target was set.
4 Adjusted results are non-GAAP financial measures which exclude certain items included in our reported results. Refer to "Reconciliation of adjusted results" in I – Information on the company – Strategy for further information.
5 Measures the amount of CET1 capital generated from operating activities.

Executive Board compensation design for 2019

The overall compensation structure and design for the Executive Board in 2019 builds upon the existing framework. Aside from refinements to the STI award financial criteria, reflecting the end of the restructuring period and feedback from shareholders and other external stakeholders, all the design changes implemented in 2018 will remain in place for 2019, as summarized in the following table.

Element	Changes implemented in 2018	2019 design
Fixed compensation	▪ No change to base salaries	▪ No changes
STI awards	▪ Introduction of STI award pool, with the total pool amount determined based on achievement of pre-determined financial criteria and non-financial criteria ▪ Metrics revised to promote greater focus on Group-level financial metrics and removal of capital-based performance metrics ▪ **Financial criteria** (weighted 66⅔%): Group adjusted[2] income before taxes and a cost target[2] ▪ **Non-financial criteria** (weighted 33⅓%): six broad categories, comprising strategic repositioning; client focus/quality of business/innovation; talent management; risk and regulatory; conduct and ethics; and teamwork and leadership ▪ **Target payout level:** 67% of the maximum opportunity	▪ **Financial criteria** (weighted 66⅔%): adjusted[2] income before taxes and Group reported RoTE[3], both for the performance year 2019
LTI awards	▪ Revised metrics for assessing performance that focus on Group only metrics and removal of capital-based performance metrics ▪ **Financial criteria** (weighted 66⅔%): Group three-year average reported RoTE[3] and TBVPS[3] ▪ **RTSR** (weighted 33⅓%): zero payout for bottom quartile ranking, weighting reduced from 50% ▪ **Target payout level**: 67% of the maximum opportunity	▪ No changes
Shareholding requirements[1]	▪ CEO minimum shareholding requirement: 500,000 shares, increased from 350,000 shares ▪ Executive Board member minimum shareholding requirement: 300,000 shares, increased from 150,000 shares	▪ No changes

1 The thresholds include all Group shares held by or on behalf of the Executive Board members, including unvested share-based awards. Executive Board members are restricted from selling shares, or from receiving their share-based awards in the form of cash, until they fulfill the minimum share ownership requirements.
2 Adjusted results are non-GAAP financial measures which exclude certain items included in our reported results.
3 Non-GAAP financial measure.

The threshold, target and maximum performance levels for the STI and LTI awards are pre-determined and set by the Compensation Committee, taking into account the Group's financial plan, prior year performance, analyst expectations and any publicly stated targets, in order to set performance levels which are challenging and motivating for the Executive Board. The financial plan is set at aspirational levels, and in combination with publicly disclosed targets, forms the basis for the maximum performance levels, with no additional upside payout beyond the maximum opportunities. The target performance levels are risk-adjusted, take into consideration analyst expectations and represent a significant increase compared with the prior year. The threshold performance levels are set taking into account prior year performance, as well as various internal scenarios.

Overview of 2019 Short-Term Incentive awards and Long-Term Incentive awards

STI awards: key features

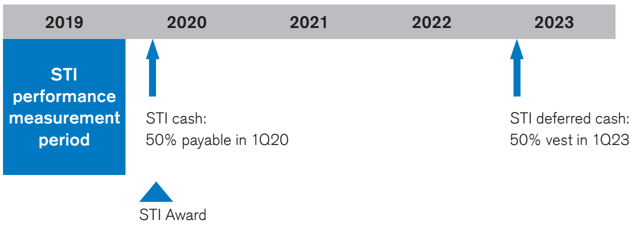
- Rewards achievement of annual objectives of the Group
- The maximum STI award pool equals the sum of all individual maximum opportunities of the Executive Board members. The award pool amount is determined based on achievement of pre-determined Group financial and non-financial metrics.
- The STI award amount for each Executive Board member is assessed by the CEO based on individualized balanced scorecards. Based on this assessment, the Compensation Committee makes proposals to the Board for the approval of final STI award amounts.
- Payout levels defined as % of total opportunity:[1]

Below Threshold	Threshold	Target	Maximum
0%	25%	67%	100%

- Delivery as 50% immediate cash payment and 50% deferred cash vesting on third anniversary of grant date[2]

Performance criteria	Weighting	Performance targets
Adjusted income before taxes[3]	33⅓%	To be disclosed retrospectively due to commercial sensitivity
Reported RoTE[4]	33⅓%	
Non-financial criteria	33⅓%	

Vesting and delivery



LTI awards: key features

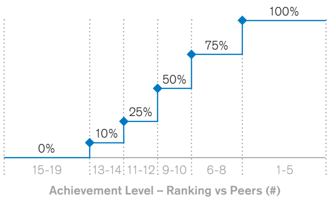
- Rewards achievement of long-term business plan and long-term returns for shareholders
- Maximum opportunity is expressed as a percentage of base salary taking into account role, market experience and geography
- Payout levels with respect to Group financial criteria are determined by average performance over three years:[1]

Below Threshold	Threshold	Target	Maximum
0%	25%	67%	100%

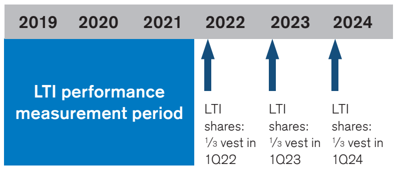
- Payout levels with respect to RTSR ranking are shown in the chart "RTSR payout levels"
- Delivery in the form of shares with vesting in three equal tranches on the third, fourth and fifth anniversaries of the grant date

Performance criteria	Weighting	Performance targets: Threshold	Target	Maximum
Three-year average reported RoTE[4]	33⅓%	6.0%	8.5%	11.5%
Three-year average TBVPS (CHF)[5]	33⅓%	17.50	18.55	19.60
RTSR	33⅓%	See "RTSR payout levels"		

RTSR payout levels (%)[6]



Vesting



1 Payout levels between threshold, target and maximum performance levels are calculated as a linear percentage of the award opportunity.
2 For UK PRA Code Staff, to comply with regulatory requirements, delivery comprises 20% immediate cash payment, 20% immediate Credit Suisse Group AG registered shares, subject to a blocking period of 12 months, and 30% deferred cash and 30% deferred shares, vesting in five equal tranches on the third to seventh anniversaries of the grant date.
3 Adjusted results are non-GAAP financial measures which exclude certain items included in our reported results.
4 RoTE is based on tangible shareholders' equity attributable to shareholders, a non-GAAP financial measure, which is calculated by deducting goodwill and other intangible assets from total shareholders' equity attributable to shareholders as presented in our balance sheet.
5 TBVPS is a non-GAAP financial measure and excludes the impact of any dividends paid during the performance period, share buybacks, own credit movements and foreign exchange rate movements.
6 To provide the benchmark for comparison of performance, a group of 18 peers has been chosen by the Compensation Committee based on size, geographic scope and business mix, and consists of companies with publicly traded shares where there is positive correlation to Credit Suisse in the relationship of share price movements and how they react to external market conditions. For the purposes of the RTSR ranking, the peer group list is unchanged since 2016 when the RTSR criteria was introduced, and consists of Banco Santander, Bank of America, Barclays, BBVA, BNP Paribas, Citigroup, Deutsche Bank, Goldman Sachs, ING Group, Intesa Sanpaolo, JPMorgan Chase, Julius Bär, Morgan Stanley, Nordea Bank, Royal Bank of Scotland, Société Générale, Standard Chartered and UBS.

Board of Directors compensation

Compensation structure

Board members receive fees which reflect their respective role, time commitment and scope of responsibility on the Board. The fee amounts are set at levels to attract and retain highly qualified and experienced individuals, taking into consideration levels at comparable leading Swiss companies. The base board and committee membership fees for the period from one AGM to the next are paid 50% in cash and 50% in Group shares in arrears in two equal installments, except for the Chairman and committee chairs as described below. The Group shares awarded are blocked and non-transferable for a period of four years. This ensures that the interests of Board members are closely aligned to the interests of shareholders. The fee amounts for the 2018 AGM to 2019 AGM Board period are shown in the table below, and are consistent with the prior year, except that the Risk Committee Chair fee has been reduced to CHF 400,000 (from CHF 420,000) as previously disclosed.

Membership fees: 2018 AGM – 2019 AGM

Role	Base fees	Chair fees [1]	Committee fees
CHF			
Chairman	3,000,000	1,500,000	–
Board member [2]	250,000	–	–
Audit Committee (AC)	–	480,000	150,000
Compensation Committee (CC)	–	300,000	100,000
Governance and Nominations Committee (GNC)	–	No additional fee	50,000
Risk Committee (RC)	–	400,000	100,000

1 Committee chairs do not receive committee fees in addition to their chair fees.
2 The Vice-Chair and Lead Independent Director does not receive additional compensation for these roles.

It is the intention of the Board to leave these fee amounts unchanged for the next Board compensation period, except that a new committee fee of CHF 75,000 will be introduced for membership of the newly established Conduct and Financial Crime Control Committee, which will be paid for the first time for the period from the 2019 AGM to the 2020 AGM.

Compensation of the Chairman

The Chairman's role is a full-time appointment. He is paid an annual base board fee of CHF 3.0 million in cash (divided into 12 monthly payments) plus a chair fee of CHF 1.5 million in Group shares delivered in one installment at the end of the current board period. In the past few years, the Chairman has voluntarily waived all or part of his chair fee. For the 2018 AGM to 2019 AGM period, the Chairman's compensation has returned to the previously approved level, in light of the successful completion of the Group's restructuring program. The Chairman may also receive benefits from and make contributions to the Group pension fund in line with local market practice for the Group. The total compensation paid to the Chairman reflects his full-time status and active role in shaping the Group's strategy, governing the Group's affairs, engaging and maintaining a close working relationship with the CEO and senior management, and providing counsel and support, where appropriate. The Chairman coordinates the Board's activities, works with the committee chairs to coordinate the tasks of the committees and ensures that Board members are provided with sufficient information to perform their duties. The Chairman drives the Board agenda on key topics such as the strategic development of the Group, corporate culture, succession planning and the structure and organization of the Group. The Chairman also steers the agenda on compensation and compensation structure, including the performance evaluation and compensation of the CEO and the Executive Board. He chairs the Board, the Governance and Nominations Committee and the shareholder meetings and takes an active role in representing the Group to regulators and supervisors, key shareholders, investors, and other external stakeholders. Moreover, he is a member of several Swiss and international industry associations on behalf of the Group, including the Swiss Bankers Association, the Swiss Finance Council, the Institute of International Finance and the European Banking Group.

Compensation of the committee chairs

The committee chair fees are fixed in advance and are not linked to the Group's financial performance. The chair fees are paid 50% in cash and 50% in Group shares in one installment at the end of the current board period. In addition to the greater time commitment required to prepare and lead the committee work, the chair fees reflect the engagement of the three committee chairs throughout the year with regulators, shareholders, the business divisions and corporate functions and other stakeholders. Regulatory developments in the banking industry in recent years have put increasing demands on the Risk and Audit Committee Chairs, in particular, increasing the frequency of interaction with the Group's main regulators on internal control, risk, capital and other matters under the supervision of these committees. Similarly, the greater focus of shareholders and regulators on compensation has resulted in an increased number of engagements between the Compensation Committee Chair and key shareholders and shareholder proxy advisers, as well as with regulators. The Compensation Committee held 9 meetings and calls during 2018. The Audit Committee Chair fee also considers the greater number of meetings required of the Audit Committee for the review and approval of the quarterly financial results and related filings and the Audit Committee Chair's supervisory role over the Internal Audit function. The Audit Committee held 18 meetings and calls during 2018. The Risk Committee Chair fee considers the regular interaction required between the Risk Committee Chair and the Group chief risk officer and other senior managers in the risk management function, as well as the oversight role over the Credit Risk Review function, which reports directly to the Risk Committee Chair. The Risk Committee held 6 meetings during 2018, and in addition, the Risk Committee Chair held numerous meetings with regulators and other stakeholders.

→ Refer to the table "Members of the Board and Board committees" in IV – Corporate Governance – Board of Directors for further information.

→ Refer to "Credit risk governance" in III – Treasury, Risk, Balance sheet and Off-balance sheet – Risk management – Risk coverage and management – Credit risk for further information on the Credit Risk Review function.

Utilization of Board compensation approved at the 2018 AGM

At the 2018 AGM, shareholders approved an aggregate amount of compensation to be paid to members of the Board for the period from the 2018 AGM to the 2019 AGM of CHF 12.0 million. Of this amount, a total of CHF 11.7 million will have been paid to Board members by the time of the 2019 AGM, of which CHF 10.4 million related to fees for Group Board memberships and CHF 1.3 million related to fees paid to certain Board members for subsidiary board membership. Total Group Board compensation is 6% higher compared with the prior period, and aggregate Board and subsidiary board compensation for Board members is 2% higher, primarily reflecting an additional Board member.

Board compensation from the 2018 AGM to the 2019 AGM (audited)

										Group		Subsidiaries	
	GNC	AC	CC	RC	Base board fee	Committee fee	Chair fee	Pension and other benefits	**Total**	Of which awarded in Group shares [1]	Subsidiary board fee [2]	Pension and other benefits	**Total, including subsidiary boards** [3]
CHF													
Urs Rohner, Chairman [4]	C				3,000,000		1,500,000	217,437	**4,717,437**	1,500,000			**4,717,437**
Iris Bohnet			M		250,000	100,000			**350,000**	175,000			**350,000**
Andreas Gottschling	M	M		C	250,000	200,000	400,000		**850,000**	425,000	100,000		**950,000**
Alexander Gut		M			250,000	150,000			**400,000**	200,000	150,000		**550,000**
Michael Klein				M	250,000	100,000			**350,000**	175,000			**350,000**
Andreas N. Koopmann			M		250,000	100,000			**350,000**	175,000			**350,000**
Seraina Macia				M	250,000	100,000			**350,000**	175,000			**350,000**
Kai S. Nargolwala	M		C		250,000	50,000	300,000		**600,000**	300,000			**600,000**
Ana Paula Pessoa		M			250,000	150,000			**400,000**	200,000			**400,000**
Joaquin J. Ribeiro		M			250,000	150,000			**400,000**	200,000			**400,000**
Severin Schwan	M			M	250,000	150,000			**400,000**	200,000			**400,000**
John Tiner	M	C		M	250,000	150,000	480,000		**880,000**	440,000	220,500		**1,100,500**
Alexandre Zeller [5]	M		M		208,333	125,000			**333,333**	166,667	666,667	180,993	**1,180,993**
Total					**5,958,333**	**1,525,000**	**2,680,000**	**217,437**	**10,380,770**	**4,331,667**	**1,137,167**	**180,993**	**11,698,930**

GNC = Governance and Nominations Committee; AC = Audit Committee; CC = Compensation Committee; RC = Risk Committee; C = Chair; M = Member

1 As of December 31, 2018, one-half of the Board member fees to be awarded in Group shares have been delivered to Board members. The applicable Group share price was CHF 13.03. The remaining shares will be delivered to Board members at or around the date of the 2019 AGM and the share price for this second share delivery will be determined at that time. Group shares are subject to a four-year blocking period.

2 Subsidiary board fees were awarded for the following subsidiary board roles: i) Mr. Gottschling serves as non-executive director and member of the risk commitee and advisory remuneration committee of the UK subsidiaries Credit Suisse International and Credit Suisse Securities (Europe) Limited; ii) Mr. Gut serves as non-executive director and audit committee chair of the Swiss subsidiary Credit Suisse (Schweiz) AG; iii) Mr. Tiner serves as non-executive board member of the US subsidiares Credit Suisse Holdings (USA), Inc. and Credit Suisse Securities (USA) LLC; in the case of Mr. Tiner, these fees were agreed prior to the cap of CHF 100,000 being adopted for Group Board members serving on subsidiary boards; and iv) Mr. Zeller served as non-executive board member and chairman of Credit Suisse (Schweiz) AG.

3 At the 2018 AGM, shareholders approved a maximum amount of total compensation to be awarded to Board members until the 2019 AGM of CHF 12 million. For the total compensation awarded to members of the Board, the Group will make payments of CHF 0.6 million for the 2018 / 2019 Board period to cover the mandatory employer social security contributions as required under the social security laws applicable to the individual Board members based on their domicile and employment status. These contributions do not form part of the Board members' compensation.

4 The Chair fee of the Chairman is set at CHF 1.5 million to be awarded as 100% Group shares. The total compensation of the Chairman includes benefits for the period from the 2018 AGM to the 2019 AGM of CHF 217,437, including pension and health insurance benefits.

5 Mr. Zeller stepped down as Group board member and board member and chairman of the board of directors of the subsidiary Credit Suisse (Schweiz) AG effective February 28, 2019. Accordingly, Mr. Zeller's Board compensation has been pro-rated for the period from the 2018 AGM to February 28, 2019. During this period, Mr. Zeller was eligible for pension and health insurance benefits in connection with his role as chairman and member of the board of Credit Suisse (Schweiz) AG, but not for his role as member of the Group Board.

Board compensation from the 2017 AGM to the 2018 AGM (audited)

										Group		Subsidiaries	
	GNC	AC	CC	RC	Base board fee	Committee fee	Chair fee	Pension and other benefits	**Total**	Of which awarded in Group shares [1]	Subsidiary board fee	Pension and other benefits	**Total, including subsidiary boards** [2]
CHF													
Urs Rohner, Chairman [3]	C				3,000,000	–	1,050,000	216,823	**4,266,823**	1,050,000	–	–	**4,266,823**
Iris Bohnet			M		250,000	100,000	–	–	**350,000**	175,000	–	–	**350,000**
Andreas Gottschling				M	250,000	100,000	–	–	**350,000**	175,000	33,333	–	**383,333**
Alexander Gut		M			250,000	150,000	–	–	**400,000**	200,000	150,000	–	**550,000**
Andreas N. Koopmann			M	M	250,000	200,000	–	–	**450,000**	225,000	–	–	**450,000**
Seraina Macia		M			250,000	150,000	–	–	**400,000**	200,000	–	–	**400,000**
Kai S. Nargolwala	M		C		250,000	50,000	300,000	–	**600,000**	300,000	–	–	**600,000**
Joaquin J. Ribeiro		M			250,000	150,000	–	–	**400,000**	200,000	–	–	**400,000**
Severin Schwan	M			M	250,000	150,000	–	–	**400,000**	200,000	–	–	**400,000**
Richard E. Thornburgh	M	M		C	250,000	200,000	420,000	–	**870,000**	435,000	271,600	–	**1,141,600**
John Tiner	M	C		M	250,000	150,000	480,000	–	**880,000**	440,000	218,250	–	**1,098,250**
Alexandre Zeller	M		M		250,000	150,000	–	–	**400,000**	200,000	800,000	216,823 [4]	**1,416,823**
Total					**5,750,000**	**1,550,000**	**2,250,000**	**216,823**	**9,766,823**	**3,800,000**	**1,473,183**	**216,823**	**11,456,829**

GNC = Governance and Nominations Committee; AC = Audit Committee; CC = Compensation Committee; RC = Risk Committee; C = Chair; M = Member

1 As of December 31, 2017, one-half of the Board member fees to be awarded in Group shares have been delivered to Board members. The applicable Group share price was CHF 16.11. The remaining shares will be delivered to Board members at or around the date of the 2018 AGM and the share price for this second share delivery will be determined at that time. Group shares are subject to a four-year blocking period.

2 At the 2017 AGM, shareholders approved a maximum amount of total compensation to be awarded to Board members until the 2018 AGM of CHF 12 million. For the total compensation awarded to members of the Board, the Group will make payments of CHF 0.5 million for the 2017/2018 Board period to cover the mandatory employer social security contributions as required under the social security laws applicable to the individual Board members based on their domicile and employment status. These contributions do not form part of the Board members' compensation.

3 The Chair fee of the Chairman is set at CHF 1.5 million to be awarded as 100% Group shares. For the period from the 2017 AGM to the 2018 AGM, the Chairman proposed to voluntarily waive 30% or CHF 0.45 million of his Chair fee and this proposal was approved by the Board. The total compensation of the Chairman includes benefits for the period from the 2017 AGM to the 2018 AGM of CHF 216,823, including pension and health insurance benefits.

4 Mr. Zeller was eligible for pension and health insurance benefits in connection with his role as board member and chairman of the board of directors of the subsidiary Credit Suisse (Schweiz) AG, but not for his role as a member of the Group Board.

Compensation of Board members serving on subsidiary boards

A number of Board members also serve as members on the boards of Group subsidiary companies. This practice is consistent with the Group's legal entity governance principles, which aim to foster a close alignment of the Group's governance practices and those of its significant subsidiary companies.

→ Refer to the "Governance of Group subsidiaries" and "Biographies of the Board members" in IV – Corporate Governance – Board of Directors for further information.

With the exception of the Chairman, Board members may receive separate fees for serving on subsidiary boards, in addition to their Board fees, which are paid in cash. These fees are approved by the respective subsidiary boards and are subject to ratification by the Board. All subsidiary board fees are included in the total amount of compensation of the members of the Board proposed for approval by shareholders at the AGM. The Chairman does not receive separate fees for board memberships in other Group companies, as this is considered to be included as part of the Chairman's compensation.

The Board members newly appointed to serve on subsidiary boards receive a flat subsidiary board membership fee of CHF 100,000 (or higher amounts if a Board member serves as the chair of the subsidiary board or a committee). This amount is generally less than that received by other external subsidiary board members, given that Board members are already familiar with the Group's entities and activities. Serving on a subsidiary board is nevertheless a significant additional commitment for these Board members, reflected, for example, in the number of subsidiary board meetings held throughout the year as shown in the following table.

Number of subsidiary board meetings

	Board	Committee [1]	**Total**
Subsidiary			
Credit Suisse (Schweiz) AG	12	16	**28**
Credit Suisse International (CSI) / Credit Suisse Securities (Europe) Ltd. (CSSEL)	13	12	**25**
Credit Suisse Holdings (USA), Inc.	19	21	**40**

1 Includes meetings of the respective subsidiary board's audit and risk committees.

Supplementary information

Board shareholdings

The table below discloses the shareholdings of the Board members, their immediate family and companies in which they have a controlling interest. As of December 31, 2018 and 2017, there were no Board members with outstanding options.

Board shareholdings by individual

end of	2018	2017
December 31 (shares) [1]		
Urs Rohner	268,250	189,956
Iris Bohnet	61,311	49,451
Andreas Gottschling	19,210	5,432
Alexander Gut	37,707	24,152
Michael Klein [2]	6,713	–
Andreas N. Koopmann	131,231	117,900
Seraina Macia	49,827	37,231
Kai S. Nargolwala	299,872	280,883
Ana Paula Pessoa [2]	7,672	–
Joaquin J. Ribeiro	37,705	24,150
Severin Schwan	129,957	116,402
John Tiner	244,317	216,645
Alexandre Zeller	79,763	6,208
Total	**1,373,535**	**1,068,410** [3]

1 Includes Group shares that are subject to a blocking period of up to four years; includes shareholdings of immediate family members.
2 Michael Klein and Ana Paula Pessoa were newly elected at the 2018 AGM.
3 Excludes 196,766 shares held by Richard E. Thornburgh as of December 31, 2017, who did not stand for re-election to the Board as of April 27, 2018.

Board loans

The majority of loans outstanding to members of the Board are mortgages or loans against securities. Such loans are made to Board members on the same terms available to third-party clients. Pursuant to the AoA, each member of the Board may be granted individual credit facilities or loans up to a maximum of CHF 20 million at market conditions. As of December 31, 2018, 2017 and 2016, outstanding loans to Board members amounted to CHF 10 million, CHF 11 million, and CHF 10 million, respectively.

Board members with loans, including the Chairman, do not benefit from employee conditions, but are subject to conditions applied to clients with a comparable credit standing. Unless otherwise noted, all loans to Board members are made in the ordinary course of business and substantially on the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons. Such loans do not involve more than the normal risk of collectability or present other unfavorable features. In addition to the loans listed below, the Group or any of its banking subsidiaries may enter into financing and other banking agreements with companies in which current Board members have a significant influence as defined by the SEC. Examples include holding executive and/or board level roles in these companies. Unless otherwise noted, loans extended by the Group to such companies are also made in the ordinary course of business and at prevailing market conditions. As of December 31, 2018, 2017 and 2016, there was no loan exposure to such related party companies that was not made in the ordinary course of business and at prevailing market conditions.

→ Refer to "Banking relationships with Board and Executive Board members and related party transactions" in IV – Corporate Governance – Additional information for further information.

Board loans by individual (audited)

end of	2018	2017
December 31 (CHF)		
Urs Rohner	4,660,000	4,745,000
Alexander Gut	30,000	30,000
Andreas N. Koopmann	4,122,750	5,197,600
Seraina Macia	960,000	968,000
Total	**9,772,750**	**10,940,600**

Includes loans to immediate family members and companies, in which the respective Board member has an ownership stake of 50% or higher.

Former members of the Board

Two former members of the Board are eligible to receive office infrastructure and secretarial support. These services are based on existing resources and are not used on a regular basis. No additional fees, severance payments or other forms of compensation were paid to former members of the Board or related parties during 2018 and 2017.

Group compensation

Compensation framework

The key elements of our current Group employees' compensation framework and how they applied to various employee categories are shown below.

Base salaries

All employees are paid a base salary. Salary levels are based on the skills, qualifications and relevant experience of the individual, the responsibilities required by the role and external market factors.

Role-based allowances

Role-based allowances are a component of fixed compensation awarded to certain employees identified as Prudential Regulation Authority (PRA) Code Staff under UK regulatory requirements or material risk-takers under other EU regulatory requirements. These role-based allowances are determined based on the role and organizational responsibility of the individuals. Role-based allowances are deemed to be fixed compensation for the purposes of calculating the cap of variable incentive compensation as required by the Capital Requirements Directive IV (CRD IV) and Capital Requirements Regulation (CRR). Role-based allowances for 2018 were paid entirely in cash on a non-deferred basis.

Variable incentive compensation

For 2018, variable incentive compensation was paid in cash unless the total compensation awarded to an employee for 2018 was greater than or equal to CHF 250,000 or the local currency equivalent or USD 250,000 for employees whose total compensation is denominated in US dollars. In these cases a portion was paid in cash and the balance was deferred, vesting at a later date.

Generally, employees receive the cash portion of their variable incentive compensation at a regular payroll settlement date close to the grant date. To comply with CRD IV requirements, employees who hold material risk-taker roles in respect of certain Group subsidiaries in the EU receive shares for 50% of the non-deferred portion of variable incentive compensation that would have been paid to them as cash. These shares are vested at the time of grant but remain blocked, that is, subject to transfer restrictions, for a period of 12 months.

To enable closer alignment with market practice and local variations, two deferral tables have been applied since 2015: one for the Americas and another for the rest of the world. For 2018, the deferral rates ranged from 17.5% to 80% of variable incentive compensation for employees located in the Americas, and 17.5% to 85% of variable incentive compensation for employees located elsewhere. The amount of variable incentive compensation paid in cash for 2018 was capped at CHF 2 million or the local currency equivalent (or USD 2 million for employees whose total compensation is denominated in US dollars) per employee.

Compensation components by employee category

	Total compensation				
	Fixed compensation	Variable compensation			
			Deferred compensation[1]		
Employee category	**Base salary**	**Cash**	**Share awards**	**Performance share awards**	**Contingent Capital Awards**
Managing directors and directors who are MRTC			30%	50%	20%
Other directors			80%		20%
Other MRTC			50%	50%	
Other employees with total compensation of CHF/USD 250,000 or higher			100%		
Employees with total compensation below CHF/USD 250,000					

1 Deferred compensation is applicable to employees with total compensation of CHF/USD 250,000 or higher.

Deferred compensation: key features

Award	Delivery[1]	Vesting period[1]	Performance conditions
Share awards	▪ One registered share per award ▪ Dividend equivalents (payable upon delivery)	▪ 3 years (ratable vesting) ▪ 5 years (ratable vesting) for risk managers[2] ▪ 7 years (ratable vesting over five years, starting on the third anniversary) for senior managers[3]	▪ No additional performance conditions
Performance share awards	▪ One registered share per award ▪ Dividend equivalents (payable upon delivery)	▪ 3 years (ratable vesting) ▪ 5 years (ratable vesting) for risk managers[2] ▪ 7 years (ratable vesting over five years, starting on the third anniversary) for senior managers[3]	▪ Performance conditions apply to full balance of outstanding awards ▪ Negative adjustment applies in event of divisional loss[4] by the division in which the employee worked as of December 31, 2018, or a negative return on equity (RoE) of the Group, whichever results in a larger adjustment ▪ For employees in the corporate functions and the Strategic Resolution Unit, the negative adjustment only applies in the event of a negative RoE of the Group
Contingent Capital Awards (CCA)	▪ At settlement, contingent capital instrument or cash payment based on the fair value of the CCA ▪ Prior to settlement, conditional right to receive semi-annual cash payments of interest equivalents ▪ Timing and form of distribution upon settlement is subject to approval by FINMA	▪ 3 years (cliff vesting) ▪ 5 years (cliff vesting) for risk managers[2] ▪ 7 years (cliff vesting) for senior managers[3]	Prior to settlement, the principal amount would be written down to zero and forfeited if: ▪ The Group's reported CET1 ratio falls below 7%; or ▪ FINMA determines that cancellation of the CCA and other similar contingent capital instruments is necessary, or that the Group requires public sector capital support, in either case to prevent it from becoming insolvent or otherwise failing

1 Individuals in certain jurisdictions may be subject to conditions other than those outlined here in order to comply with local legal or regulatory requirements.
2 Risk managers are a subset of the UK PRA Code Staff population, defined as individuals identified as having responsibility for managing or supervising risk-taking or significant risk functions for the Group's UK entities.
3 Senior managers are a subset of the UK PRA Code Staff population, defined as individuals who retain the greatest influence over the strategic direction of the Group's UK business, and who also perform one or more of the PRA and UK Financial Conduct Authority's designated senior management functions and "prescribed responsibilities" for the relevant UK entities.
4 Refer to table "Potential downward adjustments of performance share awards".

Potential downward adjustments of performance share awards

As described in the above table, performance share awards may be subject to negative adjustments in the event of a divisional loss. The amount of potential negative adjustment is shown in the table below.

Downward adjustment if division incurs a loss

Division pre-tax loss (in CHF billion)	Downward adjustment on award balance (in %)
1.00	15
2.00	30
3.00	45
4.00	60
5.00	75
6.00	90
6.67	100

Determination of the variable incentive compensation pools

In determining the pools, the Compensation Committee aims to balance the distribution of the Group's profits between shareholders and employees. The primary driver of the pool amounts is the Group's financial performance in terms of economic contribution, measured as adjusted income before taxes excluding variable incentive compensation expenses, after deducting a capital usage charge. Non-financial factors are also considered in the determination of the pool amounts, including progress on the achievement of strategic objectives, market position and trend, risk-related issues, relative performance compared to peers, and any extraordinary events, such as, but not limited to, company reorganizations, major legacy settlements or any other exceptional circumstances. In this regard, the Compensation Committee can apply discretion to make positive and negative adjustments to the variable incentive compensation pools.

Determination of variable incentive compensation pools

Governance	▪ Compensation Committee review	▪ Board approval	▪ Control functions provide feedback which may result in adjustments to divisional pools or individual allocations ▪ Conduct and Ethics Boards (or the Compensation Committee in the case of MD) apply malus to deferred compensation and/or variable compensation based on disciplinary review in cases of misconduct			
Process	Quarterly accruals	Final Group pool	Divisional and Corporate Function pools	Allocation to business areas	Allocation to line managers	Allocation to employees
Factors	▪ Economic contribution ▪ Risk, control, compliance, conduct and ethics		▪ Relative performance vs peers ▪ Market positioning ▪ Regulatory environment		▪ Capital usage ▪ Risk	▪ Individual and business performance

The variable incentive compensation pools are determined on an annual basis, with accruals made on a quarterly basis throughout the year. The Compensation Committee regularly reviews the accruals and related financial information and applies adjustments in exceptional circumstances to ensure that the overall size of the pools is consistent with the Group's compensation objectives. The total amount of the pool for the corporate functions is not linked to the performance of the particular divisions that employees of the corporate functions support or oversee, but takes into account the Group-wide financial performance, measured in the form of Group economic contribution and non-financial factors. Therefore, employees working in the corporate functions, including those performing control functions, are remunerated independently from the performance of the businesses they oversee and support. As with the business divisions, risk, control, compliance and ethical considerations and relative performance compared to peers, as well as the market and regulatory environment, are taken into account.

For 2018, the Compensation Committee noted the 52% increase in Group adjusted income before taxes, from CHF 2.8 billion in 2017 to CHF 4.2 billion in 2018, and acknowledged that the Group had successfully delivered against its strategic priorities, including a strengthened capital position since 2015, achievement of its target for adjusted operating cost base, closure of the Strategic Resolution Unit, de-risking of the Global Markets activities, and greater allocation of capital to the Wealth Management-related and Investment Banking & Capital Markets businesses, which typically generate higher returns and are less volatile. The Compensation Committee also considered a range of other factors such as relative performance versus peers, market position and market trends, as well as control, risk and ethical considerations. In terms of the market environment however, the Compensation Committee noted that conditions in the second half of 2018 became more challenging for the financial services industry, with a significant drop in client activity resulting from a combination of factors including increasing trade tensions, rising US interest rates and greater geopolitical uncertainty. Against the backdrop of these conditions, the Compensation Committee decided to keep the Group variable compensation pool stable to the previous year, notwithstanding an increase in adjusted income before taxes of 52% over the same period. As such, to protect returns and profitability in light of downward pressure on revenues during the second half of the year, the Compensation Committee proposed an overall Group pool of CHF 3,195 million, which was approved by the Board.

→ Adjusted results are non-GAAP financial measures which exclude certain items included in our reported results. Refer to "Reconciliation of adjusted results" in I – Information on the company – Strategy and II – Operating and financial review – Credit Suisse for further information.

Competitive benchmarking

The assessment of the economic and competitive environment is an important element of the compensation process as the Group strives for market-informed, competitive compensation levels. Internal expertise and the services of compensation consulting firms are used to benchmark compensation levels against relevant peers, taking into account geographical variations. The Compensation Committee is provided with regular reports from an independent compensation adviser on industry and market trends, including competitor performance and pay trends. The peers considered for the purposes of Group peer benchmarking are Bank of America, Barclays, Citigroup, Deutsche Bank, Goldman Sachs, JPMorgan Chase, Morgan Stanley and UBS. Specific benchmarking may include other peers, depending on the business area or geographic location, as appropriate.

For consideration of European and local practices, the Compensation Committee also references a cross-industry peer group of Europe-headquartered multinational companies selected on the basis of comparability to Credit Suisse in size, scale, global scope of operations and economic influence. In addition to the companies already listed above and those included as part of the Executive Board LTI award RTSR peer group, peers considered for Executive Board compensation include: AstraZeneca, Commerzbank, HSBC, Investor AB, Merck KGaA, Novartis, Standard Life Aberdeen and UniCredit.

Focus on risk and control

Risk and control considerations are an integral part of the performance assessment and compensation processes. This ensures that the Group's approach to compensation includes a focus on risk and internal control matters and discourages excessive risk taking. Senior management from the Group's corporate functions, including Compliance and Regulatory Affairs, General Counsel, Human Resources, Internal Audit, Product Control and

Risk Management, provide the Compensation Committee with comprehensive feedback on regulatory, audit, disciplinary and risk-related issues or trends across the Group, relevant to the assessment of the Group's risk and control culture. Divisions are assessed against risk and conduct measures for the year, and the consolidated findings are presented to the Compensation Committee and the CEO. Based on these assessments, the Compensation Committee may approve adjustments to the divisional pool levels as proposed by the CEO.

Aside from risk considerations, disciplinary events may also impact compensation decisions. Conduct and Ethics Boards (CEBs) review all disciplinary events and decide on disciplinary sanctions proposed by the recommendation teams, which include representatives from the control functions. CEBs have been established at the Group-wide level, as well as for each business division and the corporate functions overall. The Group CEB meets on a quarterly basis to ensure that sanctions applied are in line with the Group's risk appetite, market practice and regulatory requirements.

Malus and clawback provisions

All deferred compensation awards granted contain malus provisions that enable the Group to reduce or cancel the awards prior to settlement if the participant engages in certain detrimental conduct. Malus provisions were enforced during the course of 2018. All variable incentive compensation granted to UK PRA Code Staff and employees regulated by the Bank of Italy are subject to clawback. Other EU-regulated employees are also subject to clawback provisions as required by applicable legal or regulatory requirements.

	Application	Scope/Criteria
Malus	▪ Reduction or cancellation of outstanding deferred awards prior to settlement ▪ Applies to all outstanding deferred awards granted	▪ Impermissible disclosure or misuse of Group information, or willful engagement in conduct that is materially detrimental to an interest of the Group; ▪ Conduct that evidences serious misbehavior or serious error; ▪ Conduct that causes, could cause or could have caused the Group or any division or region to suffer a significant downturn in financial performance or regulatory capital base; ▪ Significant failure of risk management; or ▪ Conduct that is reviewed by the Group's disciplinary conduct, ethics or similar committee
Clawback	▪ Claim back of deferred and non-deferred variable compensation after vesting and settlement ▪ For UK PRA Code Staff, clawback may be applied up to seven years from grant date (or such longer period as may be required) ▪ The Group will apply clawback provisions to the extent permitted under local laws, as required	For UK PRA Code Staff, clawback may be applied in certain situations, including: ▪ Conduct which resulted in significant losses to the Group; ▪ Failure to meet appropriate standards of fitness and propriety; ▪ Reasonable evidence of misconduct or misbehavior or a material or serious error; ▪ The Group or relevant business unit suffers a material failure of risk management; ▪ A regulator mandates a significant increase in regulatory capital for the Group or any division or region; or ▪ The individual has contributed to any regulatory sanctions imposed on the Group or division or region Similar clawback provisions apply for employees regulated by the Bank of Italy and other EU-regulated employees who are subject to a clawback requirement.

Covered Employees (including Material Risk Takers and Controllers)

Covered employees are subject to a heightened level of scrutiny over the alignment of their compensation with performance and risk considerations.

Employee categories		Compensation process
Covered Employees	▪ MRTC ▪ US-based revenue producers in Global Markets and Investment Banking & Capital Markets divisions	**Focus on risk assessment** ▪ Covered employees and their managers are required to define role-specific risk objectives and to incorporate risk considerations in their performance evaluations and when setting variable incentive compensation ▪ Types of risks considered vary by role (e.g., reputational, credit, market, operational, liquidity, legal and compliance) ▪ Both realized and potential risk outcomes are assessed
MRTC	▪ Members of the Executive Board ▪ Employees who report directly to a member of the Executive Board ▪ Employees, individually or as part of a group, with the ability to put material amounts of the Group's capital at risk ▪ Top 150 paid employees across the Group based on total compensation ▪ Any employee identified as taking or controlling material risks on behalf of the Group, as prescribed by EU/UK regulators ▪ Other individuals whose roles have been identified as having a potential impact on the market, reputational and operational risk of the Group	

Compensation outcomes for 2018

Of the total variable incentive compensation awarded across the Group for 2018, 50% was deferred, compared with 45% in 2017, and subject to certain conditions including future service, performance, market and malus criteria.

Total compensation awarded

			2018			2017
For	Unrestricted	Deferred	**Total**	Unrestricted	Deferred	Total
Fixed compensation (CHF million)						
Salaries	5,235	99	5,334	5,504	90	5,594
Social security	652	–	652	671	–	671
Other [1]	748	–	748	790 [2]	–	790
Total fixed compensation	**6,635**	**99**	**6,734**	**6,965**	**90**	**7,055**
Variable incentive compensation (CHF million)						
Cash	1,555	–	1,555	1,708	–	1,708
Share awards	35	638	673	38	613	651
Performance share awards	–	532	532	–	478	478
Contingent Capital Awards	–	299	299	–	241	241
Other cash awards	–	136	136	–	112	112
Total variable incentive compensation	**1,590**	**1,605**	**3,195**	**1,746**	**1,444**	**3,190**
Other variable compensation (CHF million)						
Severance awards	34	0	34	1	–	1
Other [3]	23	99	122	26	244	270 [4]
Total other variable compensation	**57**	**99**	**156**	**27**	**244**	**271**
Total compensation awarded (CHF million)						
Total compensation awarded	**8,282**	**1,803**	**10,085**	**8,738**	**1,778**	**10,516**
of which guaranteed bonuses	26	33	59	49	72	121

1 Includes pension and other post-retirement expense of CHF 411 million and CHF 432 million in 2018 and 2017, respectively.
2 In 2018, the Group adopted a new US GAAP accounting standard which resulted in a restatement that increased compensation and benefits and reduced general and administrative expenses by CHF 190 million.
3 Includes replacement awards to compensate employees for the equivalent fair value of deferred awards cancelled by previous employers, as well as retention awards and sign-on payments.
4 Includes CHF 65 million of cash retention awards in Asia Pacific.

Number of employees awarded variable incentive and other compensation

	2018			2017		
	MRTC [1]	Other employees	Total	MRTC [1]	Other employees	Total
Number of employees awarded variable incentive compensation						
Variable incentive compensation	**1,003**	**41,210**	**42,213**	**1,070**	**41,614**	**42,684**
of which cash	977	40,996	41,973	1,070	41,614	42,684
of which share awards	944	6,004	6,948	983	6,011	6,994
of which performance share awards	952	873	1,825	990	859	1,849
of which Contingent Capital Awards	933	4,843	5,776	963	4,833	5,796
of which other cash awards	69	431	500	41	240	281
Number of employees awarded other variable compensation						
Severance awards	1	217	218	2	181	183
Guaranteed bonuses	4	129	133	16	162	178
Other [2]	34 [3]	590	624	44 [3]	821	865

Excluding Executive Board members who were in office on December 31, 2018.

1 Excludes individuals who may have been classified as MRTC according to regulatory requirements of jurisdictions outside of Switzerland, particularly US-based revenue producers in Global Markets and Investment Banking & Capital Markets, who were classified as Covered Employees by the US Federal Reserve.

2 Includes replacement awards to compensate employees for the equivalent fair value of deferred awards cancelled by previous employers, as well as retention awards and sign-on payments.

3 For 2018 and 2017, sign-on payments were paid to 5 and 3 MRTC, respectively.

Compensation awarded to Material Risk Takers and Controllers

	2018			2017		
For	Unrestricted	Deferred	Total	Unrestricted	Deferred	Total
Fixed compensation (CHF million)						
Total fixed compensation [1]	**514**	**58**	**572**	**536**	**59**	**595**
Variable incentive compensation (CHF million)						
Cash	230	–	230	298	–	298
Share awards	35	192	227	38	177	215
Performance share awards	–	328	328	–	299	299
Contingent Capital Awards	–	128	128	–	116	116
Other cash awards	–	40	40	–	35	35
Total variable incentive compensation	**265**	**688**	**953**	**336**	**627**	**963**
Other variable compensation (CHF million)						
Severance awards	1	–	1	1	–	1
Other [2]	4 [3]	22	26	8 [3]	88	96
Total other variable compensation	**5**	**22**	**27**	**9**	**88**	**97**
Total compensation (CHF million)						
Total compensation	**784**	**768**	**1,552**	**881**	**774**	**1,655**
of which guaranteed bonuses	1	3	4	10	25	35

Excluding Executive Board members who were in office on December 31, 2018. Of the total compensation awarded to MRTC for 2018 and 2017, 49% and 47%, respectively, was deferred. Of the total variable incentive compensation awarded to MRTC for 2018 and 2017, 72% and 65%, respectively, was deferred.

1 The number of MRTCs receiving fixed compensation for 2018 and 2017 was 1,030 and 1,102, respectively.

2 Includes replacement awards to compensate employees for the equivalent fair value of deferred awards cancelled by previous employers, as well as retention awards and sign-on payments.

3 For 2018 and 2017, sign-on payments paid to MRTC amounted to CHF 1 million and CHF 5 million, respectively.

Group compensation and benefits expense

Compensation and benefits expenses recognized in the current year income statement include salaries, role-based allowances, variable compensation, benefits and employer taxes on compensation. Variable compensation expense generally reflects the variable incentive cash compensation for the current year, amortization of deferred compensation awards granted in prior years, as well as severance payments, commission payments, replacement awards, retention awards, and sign-on payments. Deferred variable incentive compensation granted for the current year is expensed in future periods during which it is subject to future service, performance and malus criteria and other restrictive covenants.

Group compensation and benefits expense

			2018			2017
in	Current compensation	Deferred compensation	Total	Current compensation	Deferred compensation	Total
Fixed compensation expense (CHF million)						
Salaries	5,235	85 [1]	5,320	5,504	52 [1]	5,556
Social security [2]	652	–	652	671	–	671
Other [3]	748	–	748	790 [4]	–	790
Total fixed compensation expense	**6,635**	**85**	**6,720**	**6,965**	**52**	**7,017**
Variable incentive compensation expense (CHF million)						
Cash	1,555	–	1,555	1,708	–	1,708
Share awards	35	526 [5]	561	38	525 [5]	563
Performance share awards	–	382	382	–	348	348
Contingent Capital Awards	–	154	154	–	280	280
Contingent Capital share awards	–	2	2	–	18	18
Capital Opportunity Facility awards	–	12	12	–	14	14
2008 Partner Asset Facility awards [6]	–	–	–	–	7	7
Other cash awards	–	178	178	–	392	392
Total variable incentive compensation expense	**1,590**	**1,254**	**2,844**	**1,746**	**1,584**	**3,330**
Other variable compensation expense (CHF million)						
Severance payments	34	–	34	1	–	1
Other [7]	22	–	22	19	–	19
Total other variable compensation expense	**56**	**–**	**56**	**20**	**–**	**20**
Total compensation expense (CHF million)						
Total compensation expense	**8,281**	**1,339**	**9,620**	**8,731**	**1,636**	**10,367**

Restructuring expenses in connection with the strategic review of the Group are disclosed separately and are not part of the total compensation expenses. These restructuring expenses included cash severance expenses of CHF 169 million and CHF 192 million relating to 1,647 and 1,774 employees in 2018 and 2017, respectively.

1 Includes fixed deferred expense of CHF 85 million for other cash awards for 2018; and CHF 4 million for share awards and CHF 48 million for other cash awards for 2017.

2 Represents the Group's portion of employees' mandatory social security.

3 Includes pension and other post-retirement expense of CHF 411 million and CHF 432 million in 2018 and 2017, respectively.

4 In 2018, the Group adopted a new US GAAP accounting standard which resulted in a restatement that increased compensation and benefits and reduced general and administrative expenses by CHF 190 million.

5 Includes CHF 22 million and CHF 34 million of compensation expense associated with replacement share awards granted in 2018 and 2017, respectively.

6 Includes the change in the underlying fair value of the indexed assets during the period.

7 Includes replacement awards to compensate employees for the equivalent fair value of deferred awards cancelled by previous employers, as well as retention awards and sign-on payments.

Supplementary information

Equal pay and the gender pay gap

Equal pay for equal work has always been and will continue to be an important focus for us. Our philosophy is to provide a discrimination-free compensation system for all employees based on their contribution and regardless of their background, including gender.

We design our compensation system to be compliant with applicable laws regarding equal and gender pay. In the UK, we publish the gender pay gap report in line with regulatory requirements and we are implementing measures to address this gap. We were one of the first banks signing up to HM Treasury's Women in Finance Charter, promising support for transitioning women into senior roles. We are also involved in numerous opportunities to promote gender diversity and talent including Women on Board, Women in Banking and Finance and Modern Muse and Tech She Can.

Equal pay for our employees is set forth in our Group Compensation policy which states that all employment-related decisions, including decisions on compensation are based on an individual's qualifications, performance and behavior, or other legitimate business considerations, such as the profitability of the Group or the division and department of the individual, and the strategic needs of the Group.

Group estimated unrecognized compensation expense

The following table shows the estimated compensation expense that has not yet been recognized through the income statement for deferred compensation awards granted for 2018 and prior years that were outstanding as of December 31, 2018, with comparative information for 2017. These estimates were based on the fair value of each award on the grant date, taking into account the current estimated outcome of relevant performance criteria and estimated future forfeitures. No estimate has been included for future mark-to-market adjustments.

Group estimated unrecognized compensation expense

	Deferred compensation		**2018**	Deferred compensation		2017
end of	For 2018	For prior-year awards	**Total**	For 2017	For prior-year awards	Total
Estimated unrecognized compensation expense (CHF million)						
Share awards	629	466 [1]	1,095	569	472 [1]	1,041
Performance share awards	521	167	688	445	158	603
Contingent Capital Awards	273	141	414	229	119	348
Contingent Capital share awards	–	0	0	–	3	3
Other cash awards	136	179	315	112	194	306
Total estimated unrecognized compensation expense	**1,559**	**953**	**2,512**	**1,355**	**946**	**2,301**

1 Includes CHF 38 million and CHF 71 million of estimated unrecognized compensation expense associated with replacement share awards granted to new employees in 2018 and 2017, respectively, not related to prior years.

Limitations on share-based awards

The Group prohibits employees from entering into transactions to hedge the value of outstanding share-based awards but allows employees to hedge awards that have already vested. Employee pledging of unvested, or vested and undistributed share-based awards is also prohibited, except with the approval of the Compensation Committee. These provisions also apply to Executive Board members.

Impact of share-based compensation on shareholders' equity

In general, the income statement expense recognition of share-based awards on a pre-tax basis has a neutral impact on shareholders' equity because the reduction to shareholders' equity from the expense recognition is offset by the obligation to deliver shares, which is recognized as an increase to equity by a corresponding amount. Shareholders' equity includes, as additional paid-in capital, the tax benefits associated with the expensing and subsequent settlement of share-based awards.

In 2018, the Group's share delivery obligations were covered by shares purchased in the market. The Group intends to continue to cover its future share delivery obligations through market purchases.

Share-based awards outstanding

At the end of 2018, there were 138.3 million share-based awards outstanding, of which 83.2 million were share awards, 51.7 million were performance share awards and 3.4 million were CCA share awards.

→ Refer to "Note 28 – Employee deferred compensation" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Subsequent activity

In early 2019, the Group granted approximately 55.6 million new share awards and 46.1 million new performance share awards with respect to performance in 2018. Further, the Group awarded CHF 299 million of deferred variable incentive compensation in the form of CCA pursuant to the Group's compensation policy.

In the first half of 2019, the Group plans to settle 62.9 million deferred awards from prior years, including 36.3 million share awards and 23.2 million performance share awards. The Group plans to meet this delivery obligation through market purchases.

→ Refer to "Capital management" in III – Treasury, Risk, Balance sheet and Off-balance sheet for more information.

Changes to the value of outstanding deferred awards

Employees experience changes to the value of their deferred compensation awards during the vesting period due to both implicit and explicit value changes. Implicit value changes primarily reflect market-driven effects, such as changes in the Group share price, changes in the value of the COF, CCA and foreign exchange rate movements. Explicit value changes reflect risk adjustments triggered by conditions related to negative performance in the performance share awards, forfeiture, or the malus provisions in all deferred awards. The final value of an award will only be determined at settlement.

→ Refer to "Note 28 – Employee deferred compensation" in VI – Consolidated financial statements – Credit Suisse Group for further information.

The following table provides a comparison of the outstanding deferred compensation awards at the end of 2017 and 2018, indicating the value of changes due to ex post implicit and ex post explicit adjustments. For 2018, the change in value for the outstanding deferred compensation awards was mainly due to implicit adjustments driven primarily by changes in the Group share price, foreign exchange rate movements and changes in the value of CCA.

Outstanding deferred compensation awards

in / end		Total outstanding end of 2017	Granted in 2018	Paid out in 2018	Ex post explicit adjustments	Ex post implicit adjustments	**Total outstanding end of 2018**	% of which exposed to ex post explicit adjustments
Group (CHF million) [1]								
CCAs	Cash-based	745	241	(314)	(31)	(94)	547	100%
Other cash awards	Cash-based	402	125	(235)	(14)	(2)	276	100%
Share awards	Share-based	1,477	740	(665)	(65)	(589)	898	100%
Performance share awards	Share-based	943	450	(441)	(37)	(358)	557	100%
CCA share awards	Share-based	146	–	(81)	(1)	(28)	36	100%
Total		**3,713**	**1,556**	**(1,736)**	**(148)**	**(1,071)**	**2,314**	
Material Risk Takers and Controllers (CHF million) [2]								
CCAs	Cash-based	281	113	(106)	–	(44)	244	100%
Other cash awards	Cash-based	149	34	(90)	–	(3)	90	100%
Share awards	Share-based	425	216	(200)	–	(176)	265	100%
Performance share awards	Share-based	458	267	(201)	–	(199)	325	100%
CCA share awards	Share-based	38	–	(24)	–	(6)	8	100%
Total		**1,351**	**630**	**(621)**	**–**	**(428)**	**932**	

1 Includes MRTCs and Executive Board members who were in office on December 31, 2018.
2 Excludes Executive Board members who were in office on December 31, 2018.

Report of the Statutory Auditor

To the General Meeting of Shareholders of Credit Suisse Group AG, Zurich

We have audited the accompanying compensation report dated March 22, 2019 of Credit Suisse Group AG (the “Group”) for the year ended December 31, 2018. The audit was limited to the information according to articles 14-16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (the “Ordinance”) contained in the sections marked with (audited) on pages 243 to 254 of the compensation report.

Responsibility of the Board of Directors

The Board of Directors is responsible for the preparation and overall fair presentation of the compensation report in accordance with Swiss law and the Ordinance. The Board of Directors is also responsible for designing the compensation system and defining individual compensation packages.

Auditor's Responsibility

Our responsibility is to express an opinion on the accompanying compensation report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the compensation report complies with Swiss law and articles 14 – 16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the compensation report with regard to compensation, loans and credits in accordance with articles 14 – 16 of the Ordinance. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatements in the compensation report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of compensation, as well as assessing the overall presentation of the compensation report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, the compensation report for the year ended December 31, 2018 of the Group complies with Swiss law and articles 14 – 16 of the Ordinance.

KPMG AG

Nicholas Edmonds *Licensed Audit Expert* *Auditor in Charge*	Ralph Dicht *Licensed Audit Expert*

Zurich, Switzerland
March 22, 2019

KPMG AG, Badenerstrasse 172, PO Box, CH-8036 Zurich

APPENDIX 5 — OUR FINANCIAL STATEMENTS EXTRACTED FROM CREDIT SUISSE ANNUAL REPORT 2018

We are a wholly owned subsidiary of Credit Suisse Group AG. We have extracted the section headed "Consolidated financial statements — Credit Suisse (Bank)" from pages 433 to 516 of the Credit Suisse Annual Report 2018 in this appendix 5. References to page numbers in this appendix 5 are to the pages in the Credit Suisse Annual Report 2018 and not to the pages in this document.

For further information on our financial statements (including the notes to such statements), we refer you to the complete Credit Suisse Annual Report 2018 on our website at www.credit-suisse.com.

Please refer to the base listing document dated 13 April 2018 for our audited consolidated financial statements and the auditors' report for the year ended 31 December 2017.

VIII – Consolidated financial statements – Credit Suisse (Bank)

Notes to the consolidated financial statements

KPMG

Report of the Independent Registered Public Accounting Firm

To the shareholders and Board of Directors
Credit Suisse AG, Zurich

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Credit Suisse AG and subsidiaries (the "Bank") as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Bank as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Bank's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 22, 2019 expressed an unqualified opinion on the effectiveness of the Bank's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Bank's management and the Board of Directors. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Bank in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

KPMG AG

Nicholas Edmonds	Anthony Anzevino
Licensed Audit Expert	*Global Lead Partner*
Auditor in Charge	

We have served as the Bank's auditor since 1989.

Zurich, Switzerland
March 22, 2019

KPMG AG, Badenerstrasse 172, PO Box, CH-8036 Zurich

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Consolidated financial statements

Consolidated statements of operations

in	Note	2018	2017	2016
Consolidated statements of operations (CHF million)				
Interest and dividend income	5	19,623	17,061	17,375
Interest expense	5	(12,498)	(10,369)	(9,781)
Net interest income	5	7,125	6,692	7,594
Commissions and fees	6	11,742	11,672	10,938
Trading revenues	7	456	1,300	371
Other revenues	8	1,497	1,301	1,490
Net revenues		**20,820**	**20,965**	**20,393**
Provision for credit losses	9	**245**	**210**	**252**
Compensation and benefits	10	8,864	9,964	10,777
General and administrative expenses	11	7,068	7,413	9,885
Commission expenses		1,259	1,429	1,455
Restructuring expenses	12	528	396	513
Total other operating expenses		8,855	9,238	11,853
Total operating expenses		**17,719**	**19,202**	**22,630**
Income/(loss) before taxes		**2,856**	**1,553**	**(2,489)**
Income tax expense	27	1,134	2,781	400
Net income/(loss)		**1,722**	**(1,228)**	**(2,889)**
Net income/(loss) attributable to noncontrolling interests		(7)	27	(6)
Net income/(loss) attributable to shareholders		**1,729**	**(1,255)**	**(2,883)**

Consolidated statements of comprehensive income

in	2018	2017	2016
Comprehensive income/(loss) (CHF million)			
Net income/(loss)	1,722	(1,228)	(2,889)
Gains/(losses) on cash flow hedges	(7)	(35)	(22)
Foreign currency translation	(321)	(1,015)	498
Unrealized gains/(losses) on securities	(18)	(13)	1
Actuarial gains/(losses)	31	21	210
Net prior service credit/(cost)	(10)	0	0
Gains/(losses) on liabilities related to credit risk	1,442	(1,684)	(1,082)
Other comprehensive income/(loss), net of tax	1,117	(2,726)	(395)
Comprehensive income/(loss)	**2,839**	**(3,954)**	**(3,284)**
Comprehensive income/(loss) attributable to noncontrolling interests	(3)	(9)	11
Comprehensive income/(loss) attributable to shareholders	**2,842**	**(3,945)**	**(3,295)**

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated balance sheets

end of	Note	2018	2017
Assets (CHF million)			
Cash and due from banks		99,314	109,510
of which reported at fair value		115	212
of which reported from consolidated VIEs		173	232
Interest-bearing deposits with banks		1,074	721
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	14	117,095	115,346
of which reported at fair value		81,818	77,498
Securities received as collateral, at fair value		41,696	38,074
of which encumbered		25,711	23,632
Trading assets, at fair value	15	132,427	156,774
of which encumbered		32,452	49,237
of which reported from consolidated VIEs		1,616	1,348
Investment securities	16	2,909	2,189
of which reported at fair value		2,909	2,189
of which reported from consolidated VIEs		1,432	381
Other investments	17	4,824	5,893
of which reported at fair value		2,430	3,497
of which reported from consolidated VIEs		1,505	1,833
Net loans	18	292,875	283,237
of which reported at fair value		14,873	15,307
of which encumbered		230	186
of which reported from consolidated VIEs		387	267
allowance for loan losses		(901)	(881)
Premises and equipment	19	4,530	4,445
of which reported from consolidated VIEs		18	128
Goodwill	20	4,056	4,036
Other intangible assets	21	219	223
of which reported at fair value		163	158
Brokerage receivables		38,907	46,968
Other assets	22	32,143	30,956
of which reported at fair value		7,263	9,018
of which encumbered		279	134
of which reported from consolidated VIEs		2,009	2,396
Total assets		**772,069**	**798,372**

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated balance sheets (continued)

end of	Note	**2018**	2017
Liabilities and equity (CHF million)			
Due to banks	23	15,220	15,411
of which reported at fair value		406	197
Customer deposits	23	365,263	362,303
of which reported at fair value		3,292	3,511
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	14	24,623	26,496
of which reported at fair value		14,828	15,262
Obligation to return securities received as collateral, at fair value		41,696	38,074
Trading liabilities, at fair value	15	42,171	39,132
of which reported from consolidated VIEs		3	3
Short-term borrowings		22,419	26,378
of which reported at fair value		8,068	11,019
of which reported from consolidated VIEs		5,465	6,672
Long-term debt	24	153,433	172,042
of which reported at fair value		63,027	62,622
of which reported from consolidated VIEs		1,764	863
Brokerage payables		30,923	43,303
Other liabilities	22	30,327	31,683
of which reported at fair value		8,983	8,590
of which reported from consolidated VIEs		277	441
Total liabilities		**726,075**	**754,822**
Common shares		4,400	4,400
Additional paid-in capital		45,557	45,718
Retained earnings		10,179	8,484
Accumulated other comprehensive income/(loss)	25	(14,840)	(15,932)
Total shareholders' equity		**45,296**	**42,670**
Noncontrolling interests		698	880
Total equity		**45,994**	**43,550**
Total liabilities and equity		**772,069**	**798,372**

end of	**2018**	2017
Additional share information		
Par value (CHF)	1.00	1.00
Issued shares	4,399,680,200	4,399,680,200
Shares outstanding	4,399,680,200	4,399,680,200

The Bank's total share capital is fully paid and consists of 4,399,680,200 registered shares as of December 31, 2018. Each share is entitled to one vote. The Bank has no warrants on its own shares outstanding.

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of changes in equity

	Attributable to shareholders							
	Common shares	Additional paid-in capital	Retained earnings	Treasury shares, at cost [1]	AOCI	**Total share-holders' equity**	Non-controlling interests	**Total equity**
2018 (CHF million)								
Balance at beginning of period	**4,400**	**45,718**	**8,484**	**0**	**(15,932)**	**42,670**	**880**	**43,550**
Purchase of subsidiary shares from non-controlling interests, changing ownership	–	(1)	–	–	–	(1)	(4)	(5)
Purchase of subsidiary shares from non-controlling interests, not changing ownership [2, 3]	–	–	–	–	–	–	(70)	(70)
Sale of subsidiary shares to noncontrolling interests, changing ownership	–	2	–	–	–	2	(2)	–
Sale of subsidiary shares to noncontrolling interests, not changing ownership [3]	–	–	–	–	–	–	30	30
Net income/(loss)	–	–	1,729	–	–	1,729	(7)	1,722
Cumulative effect of accounting changes, net of tax	–	–	(24)	–	(21)	(45)	–	(45)
Total other comprehensive income/(loss), net of tax	–	–	–	–	1,113	1,113	4	1,117
Share-based compensation, net of tax	–	(140)	–	–	–	(140)	–	(140)
Dividends on share-based compensation, net of tax	–	(22)	–	–	–	(22)	–	(22)
Dividends paid	–	–	(10)	–	–	(10)	(5)	(15)
Changes in scope of consolidation, net	–	–	–	–	–	–	(128)	(128)
Balance at end of period	**4,400**	**45,557**	**10,179**	**0**	**(14,840)**	**45,296**	**698**	**45,994**
2017 (CHF million)								
Balance at beginning of period	**4,400**	**41,817**	**9,814**	**0**	**(13,242)**	**42,789**	**1,069**	**43,858**
Purchase of subsidiary shares from non-controlling interests, not changing ownership	–	–	–	–	–	–	(189)	(189)
Sale of subsidiary shares to noncontrolling interests, not changing ownership	–	–	–	–	–	–	65	65
Net income/(loss)	–	–	(1,255)	–	–	(1,255)	27	(1,228)
Cumulative effect of accounting changes, net of tax	–	–	(25)	–	–	(25)	–	(25)
Total other comprehensive income/(loss), net of tax	–	–	–	–	(2,690)	(2,690)	(36)	(2,726)
Share-based compensation, net of tax	–	6	–	–	–	6	–	6
Dividends on share-based compensation, net of tax	–	(79)	–	–	–	(79)	–	(79)
Dividends paid	–	–	(10)	–	–	(10)	(3)	(13)
Changes in scope of consolidation, net	–	–	–	–	–	–	(41)	(41)
Other	–	3,974	(40)	–	–	3,934	(12)	3,922
Balance at end of period	**4,400**	**45,718**	**8,484**	**0**	**(15,932)**	**42,670**	**880**	**43,550**

1 Reflects Credit Suisse Group shares which are reported as treasury shares. Those shares are held to economically hedge share award obligations.
2 Distributions to owners in funds include the return of original capital invested and any related dividends.
3 Transactions with and without ownership changes related to fund activity are all displayed under "not changing ownership".

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of changes in equity (continued)

	Attributable to shareholders							
	Common shares/ participa- tion secu- rities	Additional paid-in capital	Retained earnings	Treasury shares, at cost	AOCI	**Total share- holders' equity**	Non- controlling interests	**Total equity**
2016 (CHF million)								
Balance at beginning of period	**4,400**	**40,999**	**13,307**	**0**	**(13,294)**	**45,412**	**1,284**	**46,696**
Purchase of subsidiary shares from non-controlling interests, changing ownership	–	(13)	–	–	–	(13)	(6)	(19)
Purchase of subsidiary shares from non-controlling interests, not changing ownership	–	–	–	–	–	–	(118)	(118)
Sale of subsidiary shares to noncontrolling interests, not changing ownership	–	–	–	–	–	–	120	120
Net income/(loss)	–	–	(2,883)	–	–	(2,883)	(6)	(2,889)
Cumulative effect of accounting changes, net of tax	–	–	(464)	–	464	–	–	–
Total other comprehensive income/(loss), net of tax	–	–	–	–	(412)	(412)	17	(395)
Share-based compensation, net of tax	–	168	–	–	–	168	–	168
Dividends on share-based compensation, net of tax	–	(41)	–	–	–	(41)	–	(41)
Dividends paid	–	–	(146)	–	–	(146)	–	(146)
Changes in scope of consolidation, net	–	2	–	–	–	2	(194)	(192)
Other	–	702	–	–	–	702	(28)	674
Balance at end of period	**4,400**	**41,817**	**9,814**	**0**	**(13,242)**	**42,789**	**1,069**	**43,858**

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of cash flows

in	2018	2017	2016
Operating activities (CHF million)			
Net income/(loss)	**1,722**	**(1,228)**	**(2,889)**
Adjustments to reconcile net income/(loss) to net cash provided by/(used in) operating activities (CHF million)			
Impairment, depreciation and amortization	844	837	934
Provision for credit losses	245	210	252
Deferred tax provision/(benefit)	592	2,285	(234)
Share of net income/(loss) from equity method investments	(107)	(150)	(62)
Trading assets and liabilities, net	25,388	3,441	21,214
(Increase)/decrease in other assets	3,519	(15,435)	9,731
Increase/(decrease) in other liabilities	(14,228)	(1,443)	(1,021)
Other, net	(5,564)	2,993	(917)
Total adjustments	10,689	(7,262)	29,897
Net cash provided by/(used in) operating activities	**12,411**	**(8,490)**	**27,008**
Investing activities (CHF million)			
(Increase)/decrease in interest-bearing deposits with banks	(364)	40	117
(Increase)/decrease in central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	(1,372)	14,286	(7,056)
Purchase of investment securities	(683)	(86)	(88)
Proceeds from sale of investment securities	255	14	14
Maturities of investment securities	853	422	363
Investments in subsidiaries and other investments	(546)	(1,094)	(1,357)
Proceeds from sale of other investments	1,770	1,967	1,693
(Increase)/decrease in loans	(13,701)	(14,779)	(4,221)
Proceeds from sales of loans	5,981	9,938	2,468
Capital expenditures for premises and equipment and other intangible assets	(989)	(950)	(1,164)
Proceeds from sale of premises and equipment and other intangible assets	80	60	55
Other, net	342	65	750
Net cash provided by/(used in) investing activities	**(8,374)**	**9,883**	**(8,426)**

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of cash flows (continued)

in	2018	2017	2016
Financing activities (CHF million)			
Increase/(decrease) in due to banks and customer deposits	2,006	3,187	10,237
Increase/(decrease) in short-term borrowings	(2,985)	5,507	6,594
Increase/(decrease) in central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(2,052)	(5,251)	(14,525)
Issuances of long-term debt	33,308	43,567	52,944
Repayments of long-term debt	(43,858)	(62,644)	(47,132)
Dividends paid	(15)	(13)	(145)
Other, net	(657)	3,535	1,044
Net cash provided by/(used in) financing activities	**(14,253)**	**(12,112)**	**9,017**
Effect of exchange rate changes on cash and due from banks (CHF million)			
Effect of exchange rate changes on cash and due from banks	**20**	**(837)**	**1,213**
Net increase/(decrease) in cash and due from banks (CHF million)			
Net increase/(decrease) in cash and due from banks	**(10,196)**	**(11,556)**	**28,812**
Cash and due from banks at beginning of period [1]	109,510	121,066	92,254
Cash and due from banks at end of period [1]	**99,314**	**109,510**	**121,066**

1 Includes restricted cash.

Supplemental cash flow information

in	2018	2017	2016
Cash paid for income taxes and interest (CHF million)			
Cash paid for income taxes	666	531	659
Cash paid for interest	12,524	9,688	9,105
Assets and liabilities sold in business divestitures (CHF million)			
Assets sold	0	1,777	425
Liabilities sold	0	1,658	383

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Notes to the consolidated financial statements

1 Summary of significant accounting policies

The accompanying consolidated financial statements of Credit Suisse AG (the Bank), the direct bank subsidiary of Credit Suisse Group AG (the Group), are prepared in accordance with accounting principles generally accepted in the US (US GAAP) and are stated in Swiss francs (CHF). The financial year for the Bank ends on December 31. Certain reclassifications have been made to the prior year's consolidated financial statements to conform to the current presentation which had no impact on net income/(loss) or total shareholders' equity.

In preparing the consolidated financial statements, management is required to make estimates and assumptions including, but not limited to, the fair value measurements of certain financial assets and liabilities, the allowance for loan losses, the evaluation of variable interest entities (VIEs), the impairment of assets other than loans, recognition of deferred tax assets, tax uncertainties, pension liabilities and various contingencies. These estimates and assumptions affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the dates of the consolidated balance sheets and the reported amounts of revenues and expenses during the reporting period. While management evaluates its estimates and assumptions on an ongoing basis, actual results could differ materially from management's estimates. Market conditions may increase the risk and complexity of the judgments applied in these estimates.

→ Refer to "Note 1 – Summary of significant accounting policies" in VI – Consolidated financial statements – Credit Suisse Group for a summary of significant accounting policies, with the exception of the following accounting policies.

Pension and other post-retirement benefits

Credit Suisse sponsors a Group defined benefit pension plan in Switzerland that covers eligible employees of the Bank domiciled in Switzerland. The Bank also has single-employer defined benefit pension plans and defined contribution pension plans in Switzerland and other countries around the world.

For the Bank's participation in the Group defined benefit pension plan, no retirement benefit obligation is recognized in the consolidated balance sheets of the Bank and defined contribution accounting is applied, as the Bank is not the sponsoring entity of the Group plan.

For single-employer defined benefit plans, the Bank uses the projected unit credit actuarial method to determine the present value of its projected benefit obligations (PBO) and the current and past service costs or credits related to its defined benefit and other post-retirement benefit plans. The measurement date used to perform the actuarial valuation is December 31.

→ Refer to "Pension and other post-retirement benefits" in VI – Consolidated financial statements – Credit Suisse Group – Note 1 – Summary of significant accounting policies for further information.

Own shares, own bonds and financial instruments on Group shares

The Bank's shares are wholly owned by Credit Suisse Group AG and are not subject to trading. The Bank may buy and sell Credit Suisse Group AG shares (Group shares) and Group bonds, own bonds and financial instruments on Group shares within its normal trading and market-making activities. In addition, the Bank may hold Group shares to economically hedge commitments arising from employee share-based compensation awards. Group shares are reported as trading assets, unless those shares are held to economically hedge share award obligations. Hedging shares are reported as treasury shares, resulting in a reduction to total shareholder's equity. Financial instruments on Group shares are recorded as assets or liabilities and carried at fair value. Dividends received on Group shares and unrealized and realized gains and losses on Group shares are recorded according to the classification of the shares as trading assets or treasury shares. Purchases of bonds originally issued by the Bank are recorded as an extinguishment of debt.

2 Recently issued accounting standards

→ Refer to "Note 2 – Recently issued accounting standards" in VI – Consolidated financial statements – Credit Suisse Group for recently adopted accounting standards and standards to be adopted in future periods.

The impact on the Bank's and Group's financial position, results of operations or cash flows was or is expected to be identical.

3 Business developments, significant shareholders and subsequent events

→ Refer to "Note 3 – Business developments, significant shareholders and subsequent events" in VI – Consolidated financial statements – Credit Suisse Group for further information.

4 Segment information

For the purposes of the presentation of reportable segments, the Bank has included accounts of affiliate entities wholly owned by the same parent which are managed together with the operating segments of the Bank.

→ Refer to "Note 4 – Segment information" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Net revenues and income/(loss) before taxes

in	2018	2017	2016
Net revenues (CHF million)			
Swiss Universal Bank	5,564	5,396	5,759
International Wealth Management	5,414	5,111	4,698
Asia Pacific	3,393	3,504	3,597
Global Markets	4,980	5,551	5,497
Investment Banking & Capital Markets	2,177	2,139	1,972
Strategic Resolution Unit	(708)	(886)	(1,271)
Adjustments [1]	0	150	141
Net revenues	**20,820**	**20,965**	**20,393**
Income/(loss) before taxes (CHF million)			
Swiss Universal Bank	2,125	1,765	2,025
International Wealth Management	1,705	1,351	1,121
Asia Pacific	664	729	725
Global Markets	154	450	48
Investment Banking & Capital Markets	344	369	261
Strategic Resolution Unit	(1,381)	(2,135)	(5,759)
Adjustments [1]	(755)	(976)	(910)
Income/(loss) before taxes	**2,856**	**1,553**	**(2,489)**

1 Adjustments represent certain consolidating entries and balances, including those relating to items that are managed but are not legally owned by the Bank and vice versa, and certain expenses that were not allocated to the segments.

Total assets

end of	2018	2017
Total assets (CHF million)		
Swiss Universal Bank	224,301	228,857
International Wealth Management	91,835	94,753
Asia Pacific	99,809	96,497
Global Markets	211,530	242,159
Investment Banking & Capital Markets	16,156	20,803
Strategic Resolution Unit	20,874	45,629
Adjustments [1]	107,564	69,674
Total assets	**772,069**	**798,372**

1 Adjustments represent certain consolidating entries and balances, including those relating to items that are managed but are not legally owned by the Bank and vice versa, and certain expenses that were not allocated to the segments.

Net revenues and income/(loss) before taxes by geographical location

in	2018	2017	2016
Net revenues (CHF million)			
Switzerland	8,047	8,015	8,484
EMEA	1,164	1,042	2,036
Americas	8,750	8,952	7,267
Asia Pacific	2,859	2,956	2,606
Net revenues	**20,820**	**20,965**	**20,393**
Income/(loss) before taxes (CHF million)			
Switzerland	1,927	1,648	1,955
EMEA	(2,520)	(2,825)	(2,487)
Americas	3,344	2,660	(1,602)
Asia Pacific	105	70	(355)
Income/(loss) before taxes	**2,856**	**1,553**	**(2,489)**

The designation of net revenues and income/(loss) before taxes is based on the location of the office recording the transactions. This presentation does not reflect the way the Bank is managed.

Total assets by geographical location

end of	2018	2017
Total assets (CHF million)		
Switzerland	237,200	243,767
EMEA	149,715	154,179
Americas	309,616	318,358
Asia Pacific	75,538	82,068
Total assets	**772,069**	**798,372**

The designation of total assets by region is based upon customer domicile.

5 Net interest income

in	2018	2017	2016
Net interest income (CHF million)			
Loans	6,778	5,981	5,627
Investment securities	80	47	60
Trading assets	7,131	6,698	7,483
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	2,856	2,515	2,767
Other	2,778	1,820	1,438
Interest and dividend income	19,623	17,061	17,375
Deposits	(2,291)	(1,360)	(1,047)
Short-term borrowings	(370)	(168)	(84)
Trading liabilities	(3,453)	(3,546)	(3,602)
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(1,877)	(1,284)	(1,387)
Long-term debt	(3,696)	(3,580)	(3,460)
Other	(811)	(431)	(201)
Interest expense	(12,498)	(10,369)	(9,781)
Net interest income	**7,125**	**6,692**	**7,594**

6 Commissions and fees

in	2018	2017	2016
Commissions and fees (CHF million)			
Lending business	1,902	1,809	1,790
Investment and portfolio management	3,415	3,320	3,043
Other securities business	83	82	72
Fiduciary business	3,498	3,402	3,115
Underwriting	1,735	1,817	1,364
Brokerage	2,797	3,006	3,029
Underwriting and brokerage	4,532	4,823	4,393
Other services	1,810	1,638	1,640
Commissions and fees	**11,742**	**11,672**	**10,938**

7 Trading revenues

in	2018	2017	2016
Trading revenues (CHF million)			
Interest rate products	759	3,218	7,163
Foreign exchange products	372	1,991	(3,461)
Equity/index-related products	(481)	(2,895)	(1,738)
Credit products	(97)	(1,096)	(2,124)
Commodity and energy products	102	86	177
Other products	(199)	(4)	354
Total	**456**	**1,300**	**371**

Represents revenues on a product basis which are not representative of business results within segments, as segment results utilize financial instruments across various product types.

→ Refer to “Note 7 – Trading revenues” in VI – Consolidated financial statements – Credit Suisse Group for further information.

8 Other revenues

in	2018	2017	2016
Other revenues (CHF million)			
Loans held-for-sale	(4)	3	(51)
Long-lived assets held-for-sale	39	(18)	437
Equity method investments	221	229	205
Other investments	335	81	7
Other	906	1,006	892
Other revenues	**1,497**	**1,301**	**1,490**

9 Provision for credit losses

in	2018	2017	2016
Provision for credit losses (CHF million)			
Provision for loan losses	201	190	249
Provision for lending-related and other exposures	44	20	3
Provision for credit losses	**245**	**210**	**252**

10 Compensation and benefits

in	2018	2017	2016
Compensation and benefits (CHF million)			
Salaries and variable compensation	7,449	8,421	9,058
Social security	567	620	691
Other	848 [1]	923	1,028
Compensation and benefits	**8,864**	**9,964**	**10,777**

1 Includes pension-related expenses of CHF 533 million in 2018 relating to service costs for defined benefit pension plans and employer contributions for defined contribution pension plans.

11 General and administrative expenses

in	2018	2017	2016
General and administrative expenses (CHF million)			
Occupancy expenses	855	935	999
IT, machinery, etc.	926	1,005	1,160
Provisions and losses	433	697	3,009
Travel and entertainment	310	299	316
Professional services	2,991	3,019	2,966
Amortization and impairment of other intangible assets	9	9	8
Other	1,544 [1]	1,449	1,427
General and administrative expenses	**7,068**	**7,413**	**9,885**

1 Includes pension-related expenses/(credits) of CHF 32 million in 2018 relating to certain components of net periodic benefit costs for defined benefit plans.

12 Restructuring expenses

Restructuring expenses by segment

in	2018	2017	2016
Restructuring expenses by segment (CHF million)			
Swiss Universal Bank	101	59	60
International Wealth Management	115	70	54
Asia Pacific	61	63	53
Global Markets	242	150	217
Investment Banking & Capital Markets	84	42	28
Strategic Resolution Unit	21	57	121
Corporate Center	2	14	7
Adjustments [1]	(98)	(59)	(27)
Total restructuring expenses	**528**	**396**	**513**

1 Adjustments represent certain consolidating entries and balances, including those relating to items that are managed but are not legally owned by the Bank and vice versa.

Restructuring expenses by type

in	2018	2017	2016
Restructuring expenses by type (CHF million)			
Compensation and benefits-related expenses	233	286	358
of which severance expenses	157	188	218
of which accelerated deferred compensation	76	98	140
General and administrative-related expenses	295	110	155
Total restructuring expenses	**528**	**396**	**513**

In connection with the ongoing implementation of the revised Bank strategy, restructuring expenses of CHF 528 million, CHF 396 million and CHF 513 million were recognized in 2018, 2017 and 2016, respectively.

→ Refer to "Note 12 – Restructuring expenses" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Restructuring provision

	2018			2017			2016		
in	Compensation and benefits	General and administrative expenses	Total	Compensation and benefits	General and administrative expenses	Total	Compensation and benefits	General and administrative expenses	Total
Restructuring provision (CHF million)									
Balance at beginning of period	**191**	**110**	**301**	**217**	**94**	**311**	**187**	**12**	**199**
Net additional charges [1]	157	216	373	188	86	274	218	137	355
Utilization	(196)	(136)	(332)	(214)	(70)	(284)	(188)	(55)	(243)
Balance at end of period	**152**	**190**	**342**	**191**	**110**	**301**	**217**	**94**	**311**

1 The following items for which expense accretion was accelerated in 2018, 2017 and 2016 due to the restructuring of the Bank are not included in the restructuring provision: unsettled share-based compensation of CHF 55 million, CHF 67 million and CHF 34 million, respectively; unsettled cash-based deferred compensation of CHF 21 million, CHF 31 million and CHF 106 million, respectively, which remain classified as compensation liabilities; and accelerated accumulated depreciation and impairment of CHF 79 million, CHF 24 million and CHF 18 million, respectively, which remain classified as premises and equipment. The settlement date for the unsettled share-based compensation remains unchanged at three years.

13 Revenue from contracts with customers

Contracts with customers and disaggregation of revenues

in	4Q18	3Q18	2Q18	1Q18
Contracts with customers (CHF million)				
Investment and portfolio management	866	856	850	843
Other securities business	18	21	21	23
Underwriting	330	422	513	470
Brokerage	647	605	748	812
Other services	513	470	476	490
Total revenues from contracts with customers	2,374	2,374	2,608	2,638

The table above differs from "Note 6 – Commissions and fees" as it includes only those contracts with customers that are in scope of ASC Topic 606 – Revenue from Contracts with Customers.

Contract balances

in / end of	4Q18	3Q18	2Q18	1Q18
Contract balances (CHF million)				
Contract receivables	789	883	824	745
Contract liabilities	56	66	63	67
Revenue recognized in the reporting period included in the contract liabilities balance at the beginning of period	16	7	13	13

The Bank did not recognize any revenues in the reporting period from performance obligations satisfied in previous periods.

In 2018, we recognized a net impairment loss on contract receivables of CHF 2 million in the fourth quarter, CHF 6 million in the third quarter and CHF 3 million in the second quarter. No impairment losses were recognized on contract receivables in the first quarter of 2018. The Bank did not recognize any contract assets during the fourth quarter, the third quarter, the second quarter and the first quarter of 2018.

→ Refer to "Note 14 – Revenue from contracts with customers" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Capitalized costs

The Bank has not incurred costs in obtaining a contract nor costs to fulfill a contract that are eligible for capitalization.

Remaining performance obligations

ASC Topic 606's practical expedient allows the Bank to exclude from its remaining performance obligations disclosure any performance obligations which are part of a contract with an original expected duration of one year or less. Additionally, any variable consideration, for which it is probable that a significant reversal in the amount of cumulative revenue recognized will occur when the uncertainty associated with the variable consideration is subsequently resolved, is not subject to the remaining performance obligations disclosure because such variable consideration is not included in the transaction price (e.g., investment management fees). Upon review, the Bank determined that no material remaining performance obligations are in scope of the remaining performance obligations disclosure.

Impact of the adoption of ASC Topic 606

The impact of adoption of ASC Topic 606 on the Bank's consolidated statement of operations resulted in increases in commissions and fees revenues of CHF 12 million, CHF 19 million, CHF 23 million and CHF 20 million, increases in other revenues of CHF 7 million, CHF 2 million, CHF 6 million and CHF 5 million, increases in general and administrative expenses of CHF 33 million, CHF 47 million, CHF 54 million and CHF 45 million and decreases in commission expenses of CHF 12 million, CHF 25 million, CHF 29 million and CHF 22 million for the fourth quarter, the third quarter, the second quarter and the first quarter of 2018, respectively. The impact of the adoption did not have a material impact on the Banks's consolidated balance sheet or the Bank's consolidated statement of cash flows in the fourth quarter, the third quarter, the second quarter and the first quarter of 2018.

14 Securities borrowed, lent and subject to repurchase agreements

end of	2018	2017
Securities borrowed or purchased under agreements to resell (CHF million)		
Central bank funds sold and securities purchased under resale agreements	77,770	70,009
Deposits paid for securities borrowed	39,325	45,337
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	**117,095**	**115,346**
Securities lent or sold under agreements to repurchase (CHF million)		
Central bank funds purchased and securities sold under repurchase agreements	20,305	20,606
Deposits received for securities lent	4,318	5,890
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	**24,623**	**26,496**

→ Refer to "Note 15 – Securities borrowed, lent and subject to repurchase agreements" in VI – Consolidated financial statements – Credit Suisse Group for further information.

15 Trading assets and liabilities

end of	2018	2017
Trading assets (CHF million)		
Debt securities	62,216	72,826
Equity securities	46,517	55,822
Derivative instruments [1]	18,402	19,900
Other	5,292	8,226
Trading assets	**132,427**	**156,774**
Trading liabilities (CHF million)		
Short positions	26,948	24,478
Derivative instruments [1]	15,223	14,654
Trading liabilities	**42,171**	**39,132**

1 Amounts shown after counterparty and cash collateral netting.

end of	2018	2017
Cash collateral on derivative instruments – netted (CHF million) [1]		
Cash collateral paid	20,333	23,587
Cash collateral received	13,213	14,996
Cash collateral on derivative instruments – not netted (CHF million) [2]		
Cash collateral paid	7,057	5,142
Cash collateral received	6,903	8,644

1 Recorded as cash collateral netting on derivative instruments in Note 26 – Offsetting of financial assets and financial liabilities.
2 Recorded as cash collateral on derivative instruments in Note 22 – Other assets and other liabilities.

16 Investment securities

end of	2018	2017
Investment securities (CHF million)		
Securities available-for-sale	2,909	2,189
Total investment securities	**2,909**	**2,189**

Investment securities by type

	2018				2017			
end of	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Investment securities by type (CHF million)								
Debt securities issued by the Swiss federal, cantonal or local governmental entities	0	0	0	0	197	13	0	210
Debt securities issued by foreign governments	821	7	0	828	1,215	21	0	1,236
Corporate debt securities	649	0	0	649	238	0	0	238
Residential mortgage-backed securities [1]	1,430	0	0	1,430	207	0	0	207
Commercial mortgage-backed securities	2	0	0	2	173	0	0	173
Debt securities available-for-sale	2,902	7	0	2,909	2,030	34	0	2,064
Banks, trust and insurance companies [2]	–	–	–	–	95	30	0	125
Equity securities available-for-sale [2]	–	–	–	–	95	30	0	125
Securities available-for-sale	**2,902**	**7**	**0**	**2,909**	**2,125**	**64**	**0**	**2,189**

1 Relate to the consolidation of RMBS securitization VIEs where the assets are carried at fair value under the fair value option as are the VIEs' liabilities recorded in long-term debt.
2 As a result of the adoption of ASU 2016-01, equity securities available-for-sale are now recognized in trading assets and no longer in investment securities. Refer to "Note 2 – Recently issued accounting standards" for further information.

Proceeds from sales, realized gains and realized losses from available-for-sale securities

	2018		2017		2016	
in	Debt securities	Equity securities [1]	Debt securities	Equity securities	Debt securities	Equity securities
Additional information (CHF million)						
Proceeds from sales	255	–	7	7	9	4
Realized gains	8	–	0	0	0	0

1 As a result of the adoption of ASU 2016-01 equity securities available-for-sale are now recognized in trading assets and no longer in investment securities. Refer to "Note 2 – Recently issued accounting standards" for further information.

Amortized cost, fair value and average yield of debt securities

	Debt securities available-for-sale		
end of	Amortized cost	Fair value	Average yield (in %)
2018 (CHF million)			
Due within 1 year	844	850	0.72
Due from 1 to 5 years	6	6	4.54
Due from 5 to 10 years	620	621	0.83
Due after 10 years	1,432	1,432	2.45
Total debt securities	**2,902**	**2,909**	**1.61**

17 Other investments

end of	2018	2017
Other investments (CHF million)		
Equity method investments	2,429	3,027
Equity securities (without a readily determinable fair value) [1]	1,202	1,283
of which at net asset value	526	734
of which at measurement alternative	227	175
of which at fair value	208	161
of which at cost less impairment	241	213
Real estate held-for-investment [2]	56	209
Life finance instruments [3]	1,137	1,374
Total other investments	**4,824**	**5,893**

1 Includes private equity, hedge funds and restricted stock investments as well as certain investments in non-marketable mutual funds for which the Bank has neither significant influence nor control over the investee.
2 As of the end of 2018 and 2017, real estate held for investment included foreclosed or repossessed real estate of CHF 3 million and CHF 41 million, respectively, all related to residential real estate.
3 Includes life settlement contracts at investment method and SPIA contracts.

Equity securities at measurement alternative – impairments and adjustments

in / end of	2018	Cumulative
Impairments and adjustments (CHF million)		
Impairments and downward adjustments	(4)	(7)

→ Refer to "Note 34 – Financial instruments" for further information on such investments.

No impairments were recorded on real estate held-for-investments in 2018, while in 2017 and 2016, impairments of CHF 16 million and CHF 31 million, respectively, were recorded.

Accumulated depreciation related to real estate held-for-investment amounted to CHF 27 million, CHF 136 million and CHF 133 million for 2018, 2017 and 2016, respectively. Prior periods have been corrected.

→ Refer to "Note 18 – Other investments" in VI – Consolidated financial statements – Credit Suisse Group for further information.

18 Loans, allowance for loan losses and credit quality

end of	2018	2017
Loans (CHF million)		
Mortgages	107,845	106,039
Loans collateralized by securities	42,034	42,016
Consumer finance	3,905	4,242
Consumer	153,784	152,297
Real estate	26,727	26,599
Commercial and industrial loans	86,165	81,792
Financial institutions	23,320	19,662
Governments and public institutions	3,893	3,874
Corporate & institutional	140,105	131,927
Gross loans	**293,889**	**284,224**
of which held at amortized cost	279,016	268,917
of which held at fair value	14,873	15,307
Net (unearned income)/deferred expenses	(113)	(106)
Allowance for loan losses	(901)	(881)
Net loans	**292,875**	**283,237**
Gross loans by location		
Switzerland	165,184	161,645
Foreign	128,705	122,579
Gross loans	**293,889**	**284,224**
Impaired loans		
Non-performing loans	1,203	1,048
Non-interest-earning loans	288	210
Total non-performing and non-interest-earning loans	1,491	1,258
Restructured loans	299	290
Potential problem loans	390	549
Total other impaired loans	689	839
Gross impaired loans	**2,180**	**2,097**

Allowance for loan losses

			2018			2017			2016
	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total
Allowance for loan losses (CHF million)									
Balance at beginning of period	**220**	**661**	**881**	**216**	**721**	**937**	**216**	**649**	**865**
Net movements recognized in statements of operations	19	182	201	54	136	190	63	186	249
Gross write-offs	(85)	(184)	(269)	(60)	(242)	(302)	(86)	(192)	(278)
Recoveries	21	37	58	12	41	53	13	53	66
Net write-offs	(64)	(147)	(211)	(48)	(201)	(249)	(73)	(139)	(212)
Provisions for interest	11	19	30	(1)	14	13	10	8	18
Foreign currency translation impact and other adjustments, net	1	(1)	0	(1)	(9)	(10)	0	17	17
Balance at end of period	**187**	**714**	**901**	**220**	**661**	**881**	**216**	**721**	**937**
of which individually evaluated for impairment	146	461	607	179	474	653	172	527	699
of which collectively evaluated for impairment	41	253	294	41	187	228	44	194	238
Gross loans held at amortized cost (CHF million)									
Balance at end of period	**153,761**	**125,255**	**279,016**	**152,277**	**116,640**	**268,917**	**145,070**	**115,428**	**260,498**
of which individually evaluated for impairment [1]	677	1,503	2,180	632	1,465	2,097	662	1,798	2,460
of which collectively evaluated for impairment	153,084	123,752	276,836	151,645	115,175	266,820	144,408	113,630	258,038

1 Represents gross impaired loans both with and without a specific allowance.

Purchases, reclassifications and sales

in			2018			2017			2016
	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total
Loans held at amortized cost (CHF million)									
Purchases [1]	0	2,163	**2,163**	0	3,381	**3,381**	30	3,405	**3,435**
Reclassifications from loans held-for-sale [2]	0	1	**1**	0	63	**63**	0	125	**125**
Reclassifications to loans held-for-sale [3]	1	2,351	**2,352**	0	7,407	**7,407**	1,632	2,768	**4,400**
Sales [3]	1	2,267	**2,268**	0	7,051	**7,051**	72	2,087	**2,159**

1 Includes drawdowns under purchased loan commitments.
2 Includes loans previously reclassified to held-for-sale that were not sold and were reclassified back to loans held-to-maturity.
3 All loans held at amortized cost which are sold are reclassified to loans held-for-sale on or prior to the date of the sale.

Gross loans held at amortized cost by internal counterparty rating

	Investment grade	Non-investment grade		
end of	AAA to BBB	BB to C	D	**Total**
2018 (CHF million)				
Mortgages	97,404	10,046	395	107,845
Loans collateralized by securities	39,281	2,676	77	42,034
Consumer finance	1,465	2,247	170	3,882
Consumer	138,150	14,969	642	153,761
Real estate	19,461	6,494	110	26,065
Commercial and industrial loans	41,352	37,633	1,256	80,241
Financial institutions	15,540	2,138	86	17,764
Governments and public institutions	1,132	53	0	1,185
Corporate & institutional	77,485	46,318	1,452	125,255
Gross loans held at amortized cost	**215,635**	**61,287**	**2,094**	**279,016**
Value of collateral [1]	192,617	47,999	1,444	242,060
2017 (CHF million)				
Mortgages	94,553	11,214	272	106,039
Loans collateralized by securities	38,387	3,530	99	42,016
Consumer finance	1,801	2,241	180	4,222
Consumer	134,741	16,985	551	152,277
Real estate	20,278	5,640	85	26,003
Commercial and industrial loans	39,610	35,250	1,287	76,147
Financial institutions	11,223	2,022	46	13,291
Governments and public institutions	1,124	74	1	1,199
Corporate & institutional	72,235	42,986	1,419	116,640
Gross loans held at amortized cost	**206,976**	**59,971**	**1,970**	**268,917**
Value of collateral [1]	189,092	49,271	1,409	239,772

1 Includes the value of collateral up to the amount of the outstanding related loans. For mortgages, the value of collateral is determined at the time of granting the loan and thereafter regularly reviewed according to the Bank's risk management policies and directives, with maximum review periods determined by property type, market liquidity and market transparency.

Gross loans held at amortized cost – aging analysis

end of	Current	Past due Up to 30 days	31-60 days	61-90 days	More than 90 days	Total	Total
2018 (CHF million)							
Mortgages	107,364	155	23	10	293	481	107,845
Loans collateralized by securities	41,936	21	0	0	77	98	42,034
Consumer finance	3,383	286	35	32	146	499	3,882
Consumer	152,683	462	58	42	516	1,078	153,761
Real estate	25,914	63	4	0	84	151	26,065
Commercial and industrial loans	78,919	378	96	82	766	1,322	80,241
Financial institutions	17,593	104	19	3	45	171	17,764
Governments and public institutions	1,172	13	0	0	0	13	1,185
Corporate & institutional	123,598	558	119	85	895	1,657	125,255
Gross loans held at amortized cost	**276,281**	**1,020**	**177**	**127**	**1,411**	**2,735**	**279,016**
2017 (CHF million)							
Mortgages	105,689	102	27	14	207	350	106,039
Loans collateralized by securities	41,867	37	0	0	112	149	42,016
Consumer finance	3,701	297	39	40	145	521	4,222
Consumer	151,257	436	66	54	464	1,020	152,277
Real estate	25,871	37	12	15	68	132	26,003
Commercial and industrial loans	74,966	429	40	201	511	1,181	76,147
Financial institutions	12,912	333	1	2	43	379	13,291
Governments and public institutions	1,197	1	0	0	1	2	1,199
Corporate & institutional	114,946	800	53	218	623	1,694	116,640
Gross loans held at amortized cost	**266,203**	**1,236**	**119**	**272**	**1,087**	**2,714**	**268,917**

Gross impaired loans by category

	Non-performing and non-interest earning loans			Other impaired loans			
end of	Non-performing	Non-interest-earning	Total	Re-structured	Potential problem	Total	Total
2018 (CHF million)							
Mortgages	304	12	316	34	72	106	422 [1]
Loans collateralized by securities	62	13	75	0	3	3	78
Consumer finance	170	6	176	0	1	1	177
Consumer	536	31	567	34	76	110	677
Real estate	80	4	84	0	38	38	122
Commercial and industrial loans	547	211	758	265	272	537	1,295
Financial institutions	40	42	82	0	4	4	86
Corporate & institutional	667	257	924	265	314	579	1,503
Gross impaired loans	**1,203**	**288**	**1,491**	**299**	**390**	**689**	**2,180**
2017 (CHF million)							
Mortgages	236	17	253	13	66	79	332 [1]
Loans collateralized by securities	96	16	112	0	2	2	114
Consumer finance	176	9	185	0	1	1	186
Consumer	508	42	550	13	69	82	632
Real estate	73	4	77	0	19	19	96
Commercial and industrial loans	465	121	586	277	458	735	1,321
Financial institutions	1	43	44	0	3	3	47
Governments and public institutions	1	0	1	0	0	0	1
Corporate & institutional	540	168	708	277	480	757	1,465
Gross impaired loans	**1,048**	**210**	**1,258**	**290**	**549**	**839**	**2,097**

1 As of December 31, 2018 and 2017, CHF 123 million and CHF 90 million, respectively, were related to consumer mortgages secured by residential real estate for which formal foreclosure proceedings according to local requirements of the applicable jurisdiction were in process.

As of December 31, 2018 and 2017, the Bank did not have any material commitments to lend additional funds to debtors whose loan terms had been modified in troubled debt restructurings.

Gross impaired loan details

			2018			2017
end of	Recorded investment	Unpaid principal balance	Associated specific allowance	Recorded investment	Unpaid principal balance	Associated specific allowance
CHF million						
Mortgages	278	262	21	254	239	36
Loans collateralized by securities	77	63	35	111	97	49
Consumer finance	174	154	90	180	160	94
Consumer	529	479	146	545	496	179
Real estate	82	73	10	86	79	11
Commercial and industrial loans	761	730	400	984	947	426
Financial institutions	86	84	51	47	46	37
Governments and public institutions	0	0	0	1	1	0
Corporate & institutional	929	887	461	1,118	1,073	474
Gross impaired loans with a specific allowance	**1,458**	**1,366**	**607**	**1,663**	**1,569**	**653**
Mortgages	144	144	–	78	78	–
Loans collateralized by securities	1	1	–	3	3	–
Consumer finance	3	3	–	6	6	–
Consumer	148	148	–	87	87	–
Real estate	40	40	–	10	10	–
Commercial and industrial loans	534	534	–	337	337	–
Corporate & institutional	574	574	–	347	347	–
Gross impaired loans without specific allowance	**722**	**722**	**–**	**434**	**434**	**–**
Gross impaired loans	**2,180**	**2,088**	**607**	**2,097**	**2,003**	**653**
of which consumer	677	627	146	632	583	179
of which corporate & institutional	1,503	1,461	461	1,465	1,420	474

Gross impaired loan details (continued)

in	2018			2017			2016		
	Average recorded investment	Interest income recognized	Interest income recognized (cash basis)	Average recorded investment	Interest income recognized	Interest income recognized (cash basis)	Average recorded investment	Interest income recognized	Interest income recognized (cash basis)
CHF million									
Mortgages	261	2	1	229	2	1	195	2	1
Loans collateralized by securities	92	1	1	116	1	1	153	1	1
Consumer finance	176	2	2	167	5	5	205	1	1
Consumer	529	5	4	512	8	7	553	4	3
Real estate	90	0	0	78	1	0	72	1	0
Commercial and industrial loans	905	14	5	1,151	17	5	1,029	10	4
Financial institutions	58	1	0	76	1	1	154	1	0
Governments and public institutions	0	0	0	5	0	0	5	0	0
Corporate & institutional	1,053	15	5	1,310	19	6	1,260	12	4
Gross impaired loans with a specific allowance	**1,582**	**20**	**9**	**1,822**	**27**	**13**	**1,813**	**16**	**7**
Mortgages	91	3	0	83	3	0	83	3	0
Loans collateralized by securities	1	0	0	7	0	0	24	0	0
Consumer finance	3	0	0	3	0	0	11	0	0
Consumer	95	3	0	93	3	0	118	3	0
Real estate	14	1	0	27	1	0	31	1	0
Commercial and industrial loans	292	16	1	271	11	1	307	7	1
Financial institutions	0	0	0	0	0	0	5	0	0
Governments and public institutions	0	0	0	0	0	0	5	0	0
Corporate & institutional	306	17	1	298	12	1	348	8	1
Gross impaired loans without specific allowance	**401**	**20**	**1**	**391**	**15**	**1**	**466**	**11**	**1**
Gross impaired loans	**1,983**	**40**	**10**	**2,213**	**42**	**14**	**2,279**	**27**	**8**
of which consumer	624	8	4	605	11	7	671	7	3
of which corporate & institutional	1,359	32	6	1,608	31	7	1,608	20	5

Restructured loans held at amortized cost

in	2018			2017			2016		
	Number of contracts	Recorded investment – pre-modification	Recorded investment – post-modification	Number of contracts	Recorded investment – pre-modification	Recorded investment – post-modification	Number of contracts	Recorded investment – pre-modification	Recorded investment – post-modification
CHF million, except where indicated									
Mortgages	5	29	29	0	0	0	0	0	0
Commercial and industrial loans	13	182	160	15	123	119	16	201	201
Total	**18**	**211**	**189**	**15**	**123**	**119**	**16**	**201**	**201**

Restructured loans held at amortized cost that defaulted within 12 months from restructuring

in	2018		2017		2016	
	Number of contracts	Recorded investment	Number of contracts	Recorded investment	Number of contracts	Recorded investment
CHF million, except where indicated						
Mortgages	1	8	0	0	0	0
Commercial and industrial loans	8	76	1	48	0	0
Total	**9**	**84**	**1**	**48**	**0**	**0**

In 2018, the loan modifications of the Bank included extended loan repayment terms, including suspensions of loan amortizations, deferral of lease installments or pay-as-you-earn arrangements, the waiver of claims, interest rate concessions and the subordination of a loan.

→ Refer to "Note 19 – Loans, allowance for loan losses and credit quality" in VI – Consolidated financial statements – Credit Suisse Group for further information.

19 Premises and equipment

end of	2018	2017
Premises and equipment (CHF million)		
Buildings and improvements	1,595	1,624
Land	347	346
Leasehold improvements	1,752	1,751
Software	5,715	5,583
Equipment	1,136	1,226
Premises and equipment	**10,545**	**10,530** [1]
Accumulated depreciation	(6,015)	(6,085) [1]
Total premises and equipment, net	**4,530**	**4,445**

1 Prior period has been corrected.

in	2018	2017	2016
Depreciation and impairment (CHF million)			
Depreciation	745	770	882
Impairment	8	33	25

20 Goodwill

2018	Swiss Universal Bank	International Wealth Management	Asia Pacific	Global Markets	Investment Banking & Capital Markets	Strategic Resolution Unit	Bank
Gross amount of goodwill (CHF million)							
Balance at beginning of period	**592**	**1,531**	**2,044**	**2,837**	**911**	**12**	**7,927**
Foreign currency translation impact	2	8	9	1	5	0	**25**
Other	3	(8)	0	0	0	0	**(5)**
Balance at end of period	**597**	**1,531**	**2,053**	**2,838**	**916**	**12**	**7,947**
Accumulated impairment (CHF million)							
Balance at beginning of period	**0**	**0**	**772**	**2,719**	**388**	**12**	**3,891**
Balance at end of period	**0**	**0**	**772**	**2,719**	**388**	**12**	**3,891**
Net book value (CHF million)							
Net book value	**597**	**1,531**	**1,281**	**119**	**528**	**0**	**4,056**
2017							
Gross amount of goodwill (CHF million)							
Balance at beginning of period	**605**	**1,598**	**2,090**	**2,842**	**933**	**12**	**8,080**
Foreign currency translation impact	(13)	(54)	(46)	(5)	(22)	0	**(140)**
Other	0	(13)	0	0	0	0	**(13)**
Balance at end of period	**592**	**1,531**	**2,044**	**2,837**	**911**	**12**	**7,927**
Accumulated impairment (CHF million)							
Balance at beginning of period	**0**	**0**	**772**	**2,719**	**388**	**12**	**3,891**
Balance at end of period	**0**	**0**	**772**	**2,719**	**388**	**12**	**3,891**
Net book value (CHF million)							
Net book value	**592**	**1,531**	**1,272**	**118**	**523**	**0**	**4,036**

→ Refer to "Note 21 – Goodwill" in VI – Consolidated financial statements – Credit Suisse Group for further information.

21 Other intangible assets

end of	2018 Gross carrying amount	2018 Accumulated amortization	2018 Net carrying amount	2017 Gross carrying amount	2017 Accumulated amortization	2017 Net carrying amount
Other intangible assets (CHF million)						
Trade names/trademarks	27	(26)	1	27	(26)	1
Client relationships	43	(20)	23	47	(18)	29
Other	(2)	2	0	5	(3)	2
Total amortizing other intangible assets	**68**	**(44)**	**24**	**79**	**(47)**	**32**
Non-amortizing other intangible assets	195	–	195	191	–	191
of which mortgage servicing rights, at fair value	163	–	163	158	–	158
Total other intangible assets	**263**	**(44)**	**219**	**270**	**(47)**	**223**

Additional information

in	2018	2017	2016
Aggregate amortization and impairment (CHF million)			
Aggregate amortization	8	7	8
Impairment	1	2	0

Estimated amortization

Estimated amortization (CHF million)	
2019	4
2020	3
2021	2
2022	2
2023	2

22 Other assets and other liabilities

end of	2018	2017
Other assets (CHF million)		
Cash collateral on derivative instruments	7,057	5,142
Cash collateral on non-derivative transactions	465	490
Derivative instruments used for hedging	33	50
Assets held-for-sale	6,744	8,300
of which loans [1]	6,630	8,130
of which real estate [2]	54	141
of which long-lived assets	60	29
Assets held for separate accounts	125	190
Interest and fees receivable	5,506	4,819
Deferred tax assets	4,887	5,457
Prepaid expenses	560	330
Failed purchases	1,283	1,327
Defined benefit pension and post-retirement plan assets	1,001	1,058
Other	4,482	3,793
Other assets	**32,143**	**30,956**

1 Included as of the end of 2018 and 2017 were CHF 687 million and CHF 534 million, respectively, in restricted loans, which represented collateral on secured borrowings.
2 As of the end of 2018 and 2017, real estate held-for-sale included foreclosed or repossessed real estate of CHF 13 million and CHF 8 million, respectively, of which CHF 10 million and CHF 5 million, respectively, were related to residential real estate.

end of	2018	2017
Other liabilities (CHF million)		
Cash collateral on derivative instruments	6,903	8,644
Cash collateral on non-derivative transactions	514	473
Derivative instruments used for hedging	8	99
Provisions	920	998
of which off-balance sheet risk	151	106
Restructuring liabilities	342	301
Liabilities held for separate accounts	125	190
Interest and fees payable	5,521	5,804
Current tax liabilities	907	687
Deferred tax liabilities	268	152
Failed sales	2,187	720
Defined benefit pension and post-retirement plan liabilities	518	541
Other	12,114	13,074
Other liabilities	**30,327**	**31,683**

23 Deposits

end of	Switzer-land 2018	Foreign 2018	Total 2018	Switzer-land 2017	Foreign 2017	Total 2017
Deposits (CHF million)						
Non-interest-bearing demand deposits	2,713	1,981	4,694	2,594	2,058	4,652
Interest-bearing demand deposits	126,416	28,010	154,426	125,685	32,965	158,650
Savings deposits	63,924	48	63,972	64,068	18	64,086
Time deposits	32,347	125,044	157,391 [1]	33,051	117,275	150,326 [1]
Total deposits	**225,400**	**155,083**	**380,483** [2]	**225,398**	**152,316**	**377,714** [2]
of which due to banks	–	–	15,220	–	–	15,411
of which customer deposits	–	–	365,263	–	–	362,303

The designation of deposits in Switzerland versus foreign deposits is based upon the location of the office where the deposit is recorded.

1 Included CHF 157,252 million and CHF 150,203 million as of December 31, 2018 and 2017, respectively, of the Swiss franc equivalent of individual time deposits greater than USD 100,000 in Switzerland and foreign offices.

2 Not included as of December 31, 2018 and 2017 were CHF 137 million and CHF 135 million, respectively, of overdrawn deposits reclassified as loans.

24 Long-term debt

end of	2018	2017
Long-term debt (CHF million)		
Senior	136,445	148,568
Subordinated	15,224	22,611
Non-recourse liabilities from consolidated VIEs	1,764	863
Long-term debt	**153,433**	**172,042**
of which reported at fair value	63,027	62,622
of which structured notes	48,064	51,465

end of	2018	2017
Structured notes by product (CHF million)		
Equity	30,698	32,059
Fixed income	13,128	14,471
Credit	3,898	4,678
Other	340	257
Total structured notes	**48,064**	**51,465**

Long-term debt by maturities

end of	2019	2020	2021	2022	2023	Thereafter	Total
Long-term debt (CHF million)							
Senior debt							
Fixed rate	15,798	9,359	7,759	11,321	6,041	29,899	80,177
Variable rate	10,001	9,953	8,142	5,690	3,605	18,877	56,268
Interest rates (range in %) [1]	0.0–8.8	0.1–22.5	0.1–6.7	0.1–8.2	0.1–4.2	0.2–7.1	–
Subordinated debt							
Fixed rate	0	1,797	19	1,552	5,781	5,858	15,007
Variable rate	211	0	0	0	6	0	217
Interest rates (range in %) [1]	2.7	3.3–7.0	3.3	7.1–7.5	3.9–8.0	3.5–8.0	–
Non-recourse liabilities from consolidated VIEs							
Fixed rate	346	235	23	0	0	0	604
Variable rate	114	2	4	6 [2]	21 [2]	1,013	1,160
Interest rates (range in %) [1]	2.9–7.2	3.8	9.3–10.3	–	–	1.2–10.7	–
Total long-term debt	**26,470**	**21,346**	**15,947**	**18,569**	**15,454**	**55,647**	**153,433**
of which structured notes	8,268	9,260	5,779	3,787	2,726	18,244	48,064

The maturity of perpetual debt is based on the earliest callable date. The maturity of all other debt is based on contractual maturity and includes certain structured notes that have mandatory early redemption features based on stipulated movements in markets or the occurrence of a market event. Within this population there are approximately CHF 0.5 billion of such notes with a contractual maturity of greater than one year that have an observable likelihood of redemption occurring within one year based on a modelling assessment.

1 Excludes structured notes for which fair value has been elected as the related coupons are dependent upon the embedded derivatives and prevailing market conditions at the time each coupon is paid.

2 Reflects equity linked notes, where the payout is not fixed.

→ Refer to "Note 25 – Long-term debt" in VI – Consolidated financial statements – Credit Suisse Group for further information.

25 Accumulated other comprehensive income

	Gains/ (losses) on cash flow hedges	Cumulative translation adjustments	Unrealized gains/ (losses) on securities	Actuarial gains/ (losses)	Net prior service credit/ (cost)	Gains/ (losses) on liabilities relating to credit risk	AOCI
2018 (CHF million)							
Balance at beginning of period	**(51)**	**(13,248)**	**48**	**(381)**	**2**	**(2,302)**	**(15,932)**
Increase/(decrease)	(115)	(344)	(11)	(18)	(10)	1,394	896
Reclassification adjustments, included in net income/(loss)	108	19	(7)	49	0	48	217
Cumulative effect of accounting changes, net of tax	0	0	(21)	0	0	0	(21)
Total increase/(decrease)	(7)	(325)	(39)	31	(10)	1,442	1,092
Balance at end of period	**(58)**	**(13,573)**	**9**	**(350)**	**(8)**	**(860)**	**(14,840)**
2017 (CHF million)							
Balance at beginning of period	**(16)**	**(12,269)**	**61**	**(402)**	**2**	**(618)**	**(13,242)**
Increase/(decrease)	(61)	(1,009)	(13)	(40)	0	(1,716)	(2,839)
Reclassification adjustments, included in net income/(loss)	26	30	0	61	0	32	149
Total increase/(decrease)	(35)	(979)	(13)	21	0	(1,684)	(2,690)
Balance at end of period	**(51)**	**(13,248)**	**48**	**(381)**	**2**	**(2,302)**	**(15,932)**
2016 (CHF million)							
Balance at beginning of period	**6**	**(12,750)**	**60**	**(612)**	**2**	**–**	**(13,294)**
Increase/(decrease)	(6)	409	1	131	0	(1,082)	(547)
Reclassification adjustments, included in net income/(loss)	(16)	72	0	79	0	0	135
Cumulative effect of accounting changes, net of tax	0	0	0	0	0	464	464
Total increase/(decrease)	(22)	481	1	210	0	(618)	52
Balance at end of period	**(16)**	**(12,269)**	**61**	**(402)**	**2**	**(618)**	**(13,242)**

→ Refer to “Note 27 – Tax” and “Note 30 – Pension and other post-retirement benefits” for income tax expense/(benefit) on the movements of accumulated other comprehensive income/(loss).

Details of significant reclassification adjustments

in	**2018**	2017	2016
Reclassification adjustments, included in net income/(loss) (CHF million)			
Cumulative translation adjustments			
Reclassification adjustments [1]	**19**	**30**	**72**
Actuarial gains/(losses)			
Amortization of recognized actuarial losses [2]	55	68	123
Tax expense/(benefit)	(6)	(7)	(44)
Net of tax	**49**	**61**	**79**

1 Includes net releases of CHF 21 million on the liquidation of Credit Suisse Securities (Johannesburg) Proprietary Limited in 2018 and net releases of CHF 17 million on the liquidation of Credit Suisse Principal Investments Limited and AJP Cayman Ltd. in 2016. In addition, it includes net releases of CHF 23 million on the sale of Credit Suisse (Monaco) S.A.M. in 2017 and net releases of CHF 59 million on the sale of Credit Suisse (Gibraltar) Limited in 2016. These were reclassified from cumulative translation adjustments and included in net income in other revenues.

2 These components are included in the computation of total benefit costs. Refer to “Note 30 – Pension and other post-retirement benefits” for further information.

26 Offsetting of financial assets and financial liabilities

→ Refer to "Note 27 – Offsetting of financial assets and financial liabilities" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Offsetting of derivatives

	2018		2017	
end of	Derivative assets	Derivative liabilities	Derivative assets	Derivative liabilities
Gross derivatives subject to enforceable master netting agreements (CHF billion)				
OTC-cleared	5.5	4.8	2.5	1.8
OTC	63.4	60.7	83.3	79.0
Exchange-traded	0.2	0.3	0.1	0.2
Interest rate products	**69.1**	**65.8**	**85.9**	**81.0**
OTC-cleared	0.1	0.2	0.2	0.2
OTC	26.9	31.2	29.1	34.6
Foreign exchange products	**27.0**	**31.4**	**29.3**	**34.8**
OTC	10.2	10.3	11.7	12.0
Exchange-traded	11.8	14.2	9.2	9.8
Equity/index-related products	**22.0**	**24.5**	**20.9**	**21.8**
OTC-cleared	1.5	1.6	3.6	3.8
OTC	3.8	4.9	3.9	4.7
Credit derivatives	**5.3**	**6.5**	**7.5**	**8.5**
OTC	1.3	0.5	1.4	0.9
Other products [1]	**1.3**	**0.5**	**1.4**	**0.9**
OTC-cleared	7.1	6.6	6.3	5.8
OTC	105.6	107.6	129.4	131.2
Exchange-traded	12.0	14.5	9.3	10.0
Total gross derivatives subject to enforceable master netting agreements	**124.7**	**128.7**	**145.0**	**147.0**
Offsetting (CHF billion)				
OTC-cleared	(6.0)	(5.8)	(5.7)	(5.4)
OTC	(92.5)	(99.1)	(114.5)	(122.4)
Exchange-traded	(11.6)	(12.5)	(8.6)	(9.6)
Offsetting	**(110.1)**	**(117.4)**	**(128.8)**	**(137.4)**
of which counterparty netting	(96.9)	(96.9)	(113.8)	(113.8)
of which cash collateral netting	(13.2)	(20.5)	(15.0)	(23.6)
Net derivatives presented in the consolidated balance sheets (CHF billion)				
OTC-cleared	1.1	0.8	0.6	0.4
OTC	13.1	8.5	14.9	8.8
Exchange-traded	0.4	2.0	0.7	0.4
Total net derivatives subject to enforceable master netting agreements	**14.6**	**11.3**	**16.2**	**9.6**
Total derivatives not subject to enforceable master netting agreements [2]	**3.8**	**3.9**	**3.7**	**5.2**
Total net derivatives presented in the consolidated balance sheets	**18.4**	**15.2**	**19.9**	**14.8**
of which recorded in trading assets and trading liabilities	18.4	15.2	19.9	14.7
of which recorded in other assets and other liabilities	0.0	0.0	0.0	0.1

1 Primarily precious metals, commodity and energy products.
2 Represents derivatives where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place.

Offsetting of securities purchased under resale agreements and securities borrowing transactions

end of	2018 Gross	2018 Offsetting	2018 Net book value	2017 Gross	2017 Offsetting	2017 Net book value
Securities purchased under resale agreements and securities borrowing transactions (CHF billion)						
Securities purchased under resale agreements	86.6	(20.9)	65.7	89.4	(28.8)	60.6
Securities borrowing transactions	12.6	(2.2)	10.4	18.7	(5.0)	13.7
Total subject to enforceable master netting agreements	**99.2**	**(23.1)**	**76.1**	**108.1**	**(33.8)**	**74.3**
Total not subject to enforceable master netting agreements [1]	**41.0**	**–**	**41.0**	**41.0**	**–**	**41.0**
Total	**140.2**	**(23.1)**	**117.1** [2]	**149.1**	**(33.8)**	**115.3** [2]

1 Represents securities purchased under resale agreements and securities borrowing transactions where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place.
2 CHF 81,818 million and CHF 77,498 million of the total net amount as of the end of 2018 and 2017, respectively, are reported at fair value.

Offsetting of securities sold under repurchase agreements and securities lending transactions

end of	2018 Gross	2018 Offsetting	2018 Net book value	2017 Gross	2017 Offsetting	2017 Net book value
Securities sold under repurchase agreements and securities lending transactions (CHF billion)						
Securities sold under repurchase agreements	42.3	(22.5)	19.8	49.4	(31.5)	17.9
Securities lending transactions	4.2	(0.6)	3.6	7.1	(2.3)	4.8
Obligation to return securities received as collateral, at fair value	39.4	0.0	39.4	37.0	0.0	37.0
Total subject to enforceable master netting agreements	**85.9**	**(23.1)**	**62.8**	**93.5**	**(33.8)**	**59.7**
Total not subject to enforceable master netting agreements [1]	**3.5**	**–**	**3.5**	**4.9**	**–**	**4.9**
Total	**89.4**	**(23.1)**	**66.3**	**98.4**	**(33.8)**	**64.6**
of which securities sold under repurchase agreements and securities lending transactions	47.7	(23.1)	24.6 [2]	60.3	(33.8)	26.5 [2]
of which obligation to return securities received as collateral, at fair value	41.7	0.0	41.7	38.1	0.0	38.1

1 Represents securities sold under repurchase agreements and securities lending transactions where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place.
2 CHF 14,828 million and CHF 15,262 million of the total net amount as of the end of 2018 and 2017, respectively, are reported at fair value.

Amounts not offset in the consolidated balance sheets

end of	2018 Net	2018 Financial instruments [1]	2018 Cash collateral received/ pledged [1]	2018 Net exposure	2017 Net	2017 Financial instruments [1]	2017 Cash collateral received/ pledged [1]	2017 Net exposure
Financial assets subject to enforceable master netting agreements (CHF billion)								
Derivatives	14.6	4.5	0.1	10.0	16.2	5.2	0.0	11.0
Securities purchased under resale agreements	65.7	65.7	0.0	0.0	60.6	60.6	0.0	0.0
Securities borrowing transactions	10.4	10.0	0.0	0.4	13.7	13.2	0.0	0.5
Total financial assets subject to enforceable master netting agreements	**90.7**	**80.2**	**0.1**	**10.4**	**90.5**	**79.0**	**0.0**	**11.5**
Financial liabilities subject to enforceable master netting agreements (CHF billion)								
Derivatives	11.3	1.4	0.0	9.9	9.6	2.1	0.0	7.5
Securities sold under repurchase agreements	19.8	19.7	0.1	0.0	17.9	17.9	0.0	0.0
Securities lending transactions	3.6	3.2	0.0	0.4	4.8	4.4	0.0	0.4
Obligation to return securities received as collateral, at fair value	39.4	34.3	0.0	5.1	37.0	32.7	0.0	4.3
Total financial liabilities subject to enforceable master netting agreements	**74.1**	**58.6**	**0.1**	**15.4**	**69.3**	**57.1**	**0.0**	**12.2**

1 The total amount reported in financial instruments (recognized financial assets and financial liabilities and non-cash financial collateral) and cash collateral is limited to the amount of the related instruments presented in the consolidated balance sheets and therefore any over-collateralization of these positions is not included.

27 Tax

Details of current and deferred taxes

in	2018	2017	2016
Current and deferred taxes (CHF million)			
Switzerland	126	76	135
Foreign	416	420	499
Current income tax expense	**542**	**496**	**634**
Switzerland	266	285	(167)
Foreign	326	2,000	(67)
Deferred income tax expense/(benefit)	**592**	**2,285**	**(234)**
Income tax expense	**1,134**	**2,781**	**400**
Income tax expense/(benefit) reported in shareholder's equity related to:			
Gains/(losses) on cash flow hedges	(28)	(24)	(6)
Cumulative translation adjustment	(7)	1	(4)
Unrealized gains/(losses) on securities	(5)	1	1
Actuarial gains/(losses)	7	(7)	87
Share-based compensation and treasury shares	0	0	106

Reconciliation of taxes computed at the Swiss statutory rate

in	2018	2017	2016
Income/(loss) before taxes (CHF million)			
Switzerland	1,927	1,648	1,955
Foreign	929	(95)	(4,444)
Income/(loss) before taxes	**2,856**	**1,553**	**(2,489)**
Reconciliation of taxes computed at the Swiss statutory rate (CHF million)			
Income tax expense/(benefit) computed at the statutory tax rate of 22%	628	342	(548)
Increase/(decrease) in income taxes resulting from			
Foreign tax rate differential	89	(92)	(559)
Non-deductible amortization of other intangible assets and goodwill impairment	3	0	1
Other non-deductible expenses	455	354	1,533
Additional taxable income	5	0	87
Lower taxed income	(187)	(272)	(216)
(Income)/loss taxable to noncontrolling interests	10	7	(10)
Changes in tax law and rates	(2)	2,095	145
Changes in deferred tax valuation allowance	(115)	88	76
Change in recognition of outside basis difference	(32)	(12)	211
Tax deductible impairments of Swiss subsidiary investments	(65)	88	(68)
(Windfall tax benefits)/shortfall tax charges on share-based compensation	10	91	–
Other	335	92	(252)
Income tax expense	**1,134**	**2,781**	**400**

2018

Foreign tax rate differential of CHF 89 million reflected a foreign tax expense mainly driven by profits made in higher tax jurisdictions, such as the US, partially offset by foreign tax rate differential related to profits incurred in lower tax jurisdictions, mainly in Singapore. The foreign tax rate expense of CHF 742 million comprised not only the foreign tax expense based on statutory tax rates but also the tax impacts related to additional reconciling items as explained below.

Other non-deductible expenses of CHF 455 million included the impact of CHF 325 million relating to non-deductible interest expenses (including a contingency accrual of CHF 92 million), CHF 49 million relating to non-deductible bank levy costs and other non-deductible compensation expenses and management costs, CHF 15 million relating to non-deductible fines, and other various smaller non-deductible expenses.

Lower taxed income of CHF 187 million included a tax benefit of CHF 66 million related to non-taxable dividend income, CHF 48 million related to non-taxable life insurance income, CHF 33 million related to concessionary and lower taxed income, CHF 23 million related to exempt income, and various smaller items.

Changes in deferred tax valuation allowances of CHF 115 million included a tax benefit from the release of valuation allowances of CHF 191 million, mainly in respect of two of the Bank's operating entities in the UK. Also included was the net impact of the increase in valuation allowances on deferred tax assets of CHF 76 million, mainly in respect of one of the Bank's operating entities in Switzerland.

Other of CHF 335 million included CHF 202 million relating to the tax impact of transitional adjustments arising on first adoption of IFRS 9 for own credit movements, CHF 65 million relating to the US Base Erosion and Anti-abuse Tax (BEAT), CHF 56 million relating to the net re-assessment of deferred tax balances in respect of one of the Bank's operating entities in Switzerland, CHF 26 million relating to the increase of tax contingency accruals, and other smaller balances. This was partially offset by prior year adjustments of CHF 76 million.

2017

Foreign tax rate differential of CHF 92 million reflected a foreign tax benefit mainly driven by losses made in higher tax jurisdictions, such as the US, partially offset by foreign tax rate differential related to losses incurred in lower tax jurisdictions, mainly in Guernsey. The foreign tax rate expense of CHF 2,420 million comprised not only the foreign tax benefit based on statutory tax rates but also the tax impacts related to additional reconciling items as explained below.

Other non-deductible expenses of CHF 354 million included the impact of CHF 217 million relating to non-deductible interest expenses (including a contingency accrual of CHF 155 million), CHF 57 million related to the non-deductible portion of the litigation provisions and settlement charges, CHF 27 million related to non-deductible bank levy costs and other non-deductible compensation expenses and management costs, CHF 10 million related to non-deductible foreign exchange losses, and other various smaller non-deductible expenses of CHF 43 million.

Lower taxed income of CHF 272 million included a tax benefit of CHF 86 million related to non-taxable life insurance income, CHF 78 million related to non-taxable dividend income, CHF 31 million in respect of income taxed at rates lower than the statutory tax rate, CHF 25 million related to exempt income, and various smaller items.

Changes in tax law and rates of CHF 2,095 million mainly reflected the impact of the US tax reform enacted on December 22, 2017 which resulted in a reduction of the federal corporate income tax rate from 35% to 21%, effective as of January 1, 2018. The US tax reform required a re-assessment of the deferred tax assets.

Changes in deferred tax valuation allowances of CHF 88 million included the net impact of the increase in valuation allowances on deferred tax assets of CHF 285 million, mainly in respect of two of the Bank's operating entities in the UK. Also included was a tax benefit from the release of valuation allowances of CHF 197 million, mainly in respect of two of the Bank's operating entities, one in the UK and one in Switzerland.

Other of CHF 92 million included a tax expense of CHF 231 million relating to the net re-assessment of deferred tax balances in respect of two of the Bank's operating entities in Switzerland reflecting the establishment of Credit Suisse Asset Management & Investor Services (Schweiz) Holding AG, the impact of adverse earnings mix of the current year and changes in forecasted future profitability, CHF 26 million relating to the increase of tax contingency accruals and CHF 17 million from prior year adjustments, partially offset by CHF 85 million relating to tax deductibility of previously taken litigation accruals and CHF 49 million from a favorable court decision. The remaining balance included various smaller items.

2016

Foreign tax rate differential of CHF 559 million reflected a foreign tax benefit mainly driven by losses made in higher tax jurisdictions, such as the US, partially offset by foreign tax rate differential related to profits earned in lower tax jurisdictions, mainly the Bahamas. The foreign tax rate expense of CHF 432 million was not only impacted by the foreign tax benefit based on statutory tax rates but also by tax impacts related to additional reconciling items as explained below.

Other non-deductible expenses of CHF 1,533 million included the impact of CHF 983 million related to the non-deductible portion of the litigation provisions and settlement charges, CHF 420 million relating to non-deductible interest expenses, CHF 52 million related to non-deductible bank levy costs and other non-deductible compensation expenses and management costs, CHF 31 million related to non-deductible foreign exchange losses, CHF 25 million related to onerous lease provisions, and other various smaller non-deductible expenses of CHF 22 million.

Lower taxed income of CHF 216 million included a tax benefit of CHF 71 million related to non-taxable life insurance income, CHF 58 million related to non-taxable dividend income, CHF 19 million in respect of income taxed at rates lower than the statutory tax rate, CHF 11 million related to exempt income, and various smaller items.

Changes in tax law and rates of CHF 145 million reflected a tax expense of CHF 139 million caused by the reduction of deferred tax assets from the enactment of UK corporation tax rate changes, and CHF 6 million related to changes in other countries.

Changes in deferred tax valuation allowances of CHF 76 million included the net impact of the increase in valuation allowances on deferred tax assets of CHF 308 million, mainly in respect of four of the Bank's operating entities, two in the UK, one in Hong Kong and one in Switzerland. Additionally, 2016 included an accrual of valuation allowances of CHF 91 million for previously recognized deferred tax assets in respect of one of the Bank's operating entities in Hong Kong. Also included was a tax benefit from the release of valuation allowances of CHF 193 million, mainly in respect of one of the Bank's operating entities in the UK. The change in UK corporation tax rates caused a release of valuation allowances of CHF 130 million in respect of four of the Bank's operating entities in the UK.

Change in recognition of outside basis difference of CHF 211 million reflected a tax expense related to the expected reversal of the outside basis differences relating to Swiss subsidiary investments.

Other of CHF 252 million included a tax benefit of CHF 340 million relating to the re-assessment of deferred tax balances in Switzerland reflecting changes in forecasted future profitability and CHF 33 million from prior year adjustments, partially offset by CHF 89 million tax litigation expense and associated interest and penalties relating to two Italian income tax matters which have been resolved as part of an agreement with the Italian tax authorities, and CHF 22 million relating to the increase of tax contingency accruals. The remaining balance included various smaller items.

As of December 31, 2018, the Bank had accumulated undistributed earnings from foreign subsidiaries of CHF 9.1 billion compared to CHF 4.6 billion as of December 31, 2017. The increase compared to the end of 2017 reflected a reserve transfer in one of the Bank's entities. No deferred tax liability was recorded in respect of those amounts as these earnings are considered indefinitely reinvested. It is not practicable to estimate the amount of unrecognized deferred tax liabilities for these undistributed foreign earnings.

Deferred tax assets and liabilities

end of	2018	2017
Deferred tax assets and liabilities (CHF million)		
Compensation and benefits	944	1,095
Loans	192	330
Investment securities	1,986	1,039
Provisions	582	441
Derivatives	65	96
Real estate	278	333
Net operating loss carry-forwards	6,142	6,762
Goodwill and intangible assets	497	664
Other	197	127
Gross deferred tax assets before valuation allowance	**10,883**	**10,887**
Less valuation allowance	(3,957)	(4,224)
Gross deferred tax assets net of valuation allowance	**6,926**	**6,663**
Compensation and benefits	(257)	(278)
Loans	(87)	(36)
Investment securities	(1,170)	(197)
Provisions	(368)	(519)
Business combinations	(1)	(1)
Derivatives	(214)	(154)
Real estate	(56)	(54)
Other	(154)	(119)
Gross deferred tax liabilities	**(2,307)**	**(1,358)**
Net deferred tax assets	**4,619**	**5,305**
of which deferred tax assets	4,887	5,457
of which net operating losses	1,632	2,200
of which deductible temporary differences	3,255	3,257
of which deferred tax liabilities	(268)	(152)

The decrease in net deferred tax assets from 2017 to 2018 of CHF 686 million was primarily due to the impact of CHF 691 million related to current year earnings and CHF 50 million from the re-measurement of deferred tax balances in Switzerland. These decreases were partially offset by the tax impacts directly recorded in equity and other comprehensive income, mainly related to the pension plan re-measurement and other tax recorded directly in equity of CHF 32 million and foreign exchange translation gains of CHF 23 million, which are included within the currency translation adjustments recorded in accumulated other comprehensive income/(loss) (AOCI).

Due to uncertainty concerning its ability to generate the necessary amount and mix of taxable income in future periods, the Bank recorded a valuation allowance against deferred tax assets in the amount of CHF 4.0 billion as of December 31, 2018, compared to CHF 4.2 billion as of December 31, 2017.

Amounts and expiration dates of net operating loss carry-forwards

end of 2018	Total
Net operating loss carry-forwards (CHF million)	
Due to expire within 1 year	106
Due to expire within 2 to 5 years	6,545
Due to expire within 6 to 10 years	828
Due to expire within 11 to 20 years	6,798
Amount due to expire	**14,277**
Amount not due to expire	18,618
Total net operating loss carry-forwards	**32,895**

Movements in the valuation allowance

in	2018	2017	2016
Movements in the valuation allowance (CHF million)			
Balance at beginning of period	**4,224**	**4,168**	**3,898**
Net changes	(267)	56	270
Balance at end of period	**3,957**	**4,224**	**4,168**

Tax benefits associated with share-based compensation

in	2018	2017	2016
Tax benefits (CHF million)			
Tax benefits recorded in the consolidated statements of operations [1]	236	310	390
Windfall tax benefits/(shortfall tax charges) recorded in additional paid-in capital [2]	–	–	(110)

1 Calculated at the statutory tax rate before valuation allowance considerations.
2 As a result of the adoption of ASU 2016-09 windfall tax benefits and shortfall tax charges on share-based compensation are recognized in the consolidated statements of operations and no longer in additional paid-in capital.

→ Refer to "Note 28 – Employee deferred compensation" for further information on share-based compensation.

Uncertain tax positions

Reconciliation of the beginning and ending amount of gross unrecognized tax benefits

in	2018	2017	2016
Movements in gross unrecognized tax benefits (CHF million)			
Balance at beginning of period	**481**	**401**	**360**
Increases in unrecognized tax benefits as a result of tax positions taken during a prior period	10	131	52
Decreases in unrecognized tax benefits as a result of tax positions taken during a prior period	(2)	(95)	(43)
Increases in unrecognized tax benefits as a result of tax positions taken during the current period	112	117	17
Decreases in unrecognized tax benefits relating to settlements with tax authorities	0	(73)	(2)
Reductions to unrecognized tax benefits as a result of a lapse of the applicable statute of limitations	(4)	(3)	(7)
Other (including foreign currency translation)	(23)	3	24
Balance at end of period	**574**	**481**	**401**
of which, if recognized, would affect the effective tax rate	574	481	401

Interest and penalties

in	2018	2017	2016
Interest and penalties (CHF million)			
Interest and penalties recognized in the consolidated statements of operations	(28)	30	2
Interest and penalties recognized in the consolidated balance sheets	87	115	85

Interest and penalties are reported as tax expense. The Bank is currently subject to ongoing tax audits, inquiries and litigation with the tax authorities in a number of jurisdictions, including Brazil, the Netherlands, the US, the UK and Switzerland. Although the timing of completion is uncertain, it is reasonably possible that some of these will be resolved within 12 months of the reporting date. It is reasonably possible that there will be a decrease of between zero and CHF 26 million in unrecognized tax benefits within 12 months of the reporting date.

The Bank remains open to examination from federal, state, provincial or similar local jurisdictions from the following years onward in these major countries: Brazil – 2014; the UK – 2012; Switzerland – 2011; the US – 2010; and the Netherlands – 2006.

→ Refer to "Note 28 – Tax" in VI – Consolidated financial statements – Credit Suisse Group for further information.

28 Employee deferred compensation

The following tables show the compensation expense for deferred compensation awards granted in 2018 and prior years that was recognized in the consolidated statements of operations during 2018, 2017 and 2016, the total shares delivered, the estimated unrecognized compensation expense for deferred compensation awards granted in 2018 and prior years outstanding as of December 31, 2018 and the remaining requisite service period over which the estimated unrecognized compensation expense will be recognized. The recognition of compensation expense for the deferred compensation awards granted in February 2019 began in 2019 and thus had no impact on the 2018 consolidated financial statements.

→ Refer to "Note 29 – Employee deferred compensation" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Deferred compensation expense

in	**2018**	2017	2016
Deferred compensation expense (CHF million)			
Share awards	512	519	624
Performance share awards	371	342	370
Contingent Capital Awards	149	277	234
Contingent Capital share awards	1	17	30
Capital Opportunity Facility awards	12	14	13
Plus Bond awards [1]	–	–	5
2008 Partner Asset Facility awards [2]	–	7	13
Other cash awards	257	417	331
Total deferred compensation expense	**1,302**	**1,593**	**1,620**
Total shares delivered (million)			
Total shares delivered	45.0	41.2	41.5

1 Compensation expense primarily relates to mark-to-market changes of the underlying assets of the Plus Bonds and the amortization of the voluntary Plus Bonds elected in the first quarter of 2013 and expensed over a three-year vesting period.
2 Compensation expense mainly includes the change in the underlying fair value of the indexed assets during the period.

Estimated unrecognized deferred compensation

end of	**2018**
Estimated unrecognized compensation expense (CHF million)	
Share awards	455
Performance share awards	161
Contingent Capital Awards	136
Other cash awards	160
Total	**912**
Aggregate remaining weighted-average requisite service period (years)	
Aggregate remaining weighted-average requisite service period	1.3

Does not include the estimated unrecognized compensation expense relating to grants made in 2019 for 2018.

Share awards

On February 15, 2019, the Bank granted 54.0 million share awards with a total value of CHF 620 million. The estimated unrecognized compensation expense of CHF 611 million was determined based on the fair value of the awards on the grant date, includes the current estimated future forfeitures and will be recognized over the vesting period, subject to early retirement rules.

Share awards granted for previous years

For compensation year	**2018**	2017	2016
Shares awarded (million)	54.0	33.1	37.6
Value of shares awarded (CHF million)	620	596	563

On February 15, 2019, the Bank granted 2.7 million blocked shares with a total value of CHF 31 million that vested immediately upon grant, have no future service requirements and were attributed to services performed in 2018.

Blocked share awards granted for previous years

For compensation year	**2018**	2017	2016
Blocked shares awarded (million)	2.7	1.9	2.4
Value of shares awarded (CHF million)	31	35	37

Share award activities

	2018		2017		2016	
	Number of share awards in million	Weighted-average grant-date fair value in CHF	Number of share awards in million	Weighted-average grant-date fair value in CHF	Number of share awards in million	Weighted-average grant-date fair value in CHF
Share awards						
Balance at beginning of period	**79.9**	**15.77**	**70.8**	**18.78**	**79.0**	**21.56**
Granted	40.5	16.97	51.5 [1]	14.54	38.1	17.59
Settled	(39.0)	16.02	(36.8)	19.75	(37.2)	22.68
Forfeited	(4.3)	16.33	(5.6) [2]	16.47	(9.1)	21.88
Balance at end of period	**77.1**	**16.23**	**79.9**	**15.77**	**70.8**	**18.78**
of which vested	8.4	–	7.8	–	8.1	–
of which unvested	68.7	–	72.1	–	62.7	–

1 Includes an adjustment for share awards granted in the second quarter of 2017 to compensate for the proportionate dilution of Group shares resulting from the rights offering approved on May 18, 2017. The number of deferred share-based awards held by each individual was increased by 3.64%. The terms and conditions of the adjusted shares were the same as the existing share-based awards, thereby ensuring that holders of the awards were neither advantaged nor disadvantaged by the additional shares granted.
2 Includes the transfer of the share-based awards of Neue Aargauer Bank AG, BANK-now AG and Swisscard AECS GmbH.

Performance share awards

On February 15, 2019, the Bank granted 44.6 million performance share awards with a total value of CHF 515 million. The estimated unrecognized compensation expense of CHF 505 million was determined based on the fair value of the awards on the grant date, includes the current estimated outcome of the relevant performance criteria and estimated future forfeitures and will be recognized over the vesting period, subject to early retirement rules.

Performance share awards granted for previous years

For compensation year	2018	2017	2016
Performance shares awarded (million)	44.6	25.6	29.6
Value of performance shares awarded (CHF million)	515	462	449

Performance share award activities

	2018		2017		2016	
	Number of performance share awards in million	Weighted-average grant-date fair value in CHF	Number of performance share awards in million	Weighted-average grant-date fair value in CHF	Number of performance share awards in million	Weighted-average grant-date fair value in CHF
Performance share awards						
Balance at beginning of period	**52.8**	**15.88**	**48.1**	**19.12**	**55.5**	**21.01**
Granted	25.6	16.98	31.1 [1]	14.41	21.3	18.62
Settled	(25.6)	16.07	(23.6)	20.41	(26.4)	22.66
Forfeited	(2.8)	16.26	(2.8) [2]	16.37	(2.3)	18.98
Balance at end of period	**50.0**	**16.33**	**52.8**	**15.88**	**48.1**	**19.12**
of which vested	5.2	–	6.6	–	6.8	–
of which unvested	44.8	–	46.2	–	41.3	–

1 Includes an adjustment for performance share awards granted in the second quarter of 2017 to compensate for the proportionate dilution of Group shares resulting from the rights offering approved on May 18, 2017. The number of deferred share-based awards held by each individual was increased by 3.64%. The terms and conditions of the adjusted shares were the same as the existing share-based awards, thereby ensuring that holders of the awards were neither advantaged nor disadvantaged by the additional performance shares granted.
2 Includes the transfer of the share-based awards of Neue Aargauer Bank AG, BANK-now AG and Swisscard AECS GmbH.

Contingent Capital Awards

On February 15, 2019, the Bank awarded CHF 289 million of Contingent Capital Awards (CCA) that will be expensed over the vesting period. The estimated unrecognized compensation expense of CHF 264 million was determined based on the fair value of the awards on the grant date and includes the current estimated outcome of the relevant performance criteria, the estimated future forfeitures and the expected semi-annual cash payments of interest equivalents and will be recognized over the vesting period.

Contingent Capital Awards granted for previous years

For compensation year	**2018**	2017	2016
CCA awarded (CHF million)	289	233	228

Contingent Capital share awards

In March 2016, the Bank executed a voluntary exchange offer, under which employees had the right to voluntarily convert all or a portion of their respective CCA into Contingent Capital share awards at a conversion price of CHF 14.57. CCA holders elected to convert CHF 213 million of their CCA into Contingent Capital share awards during the election period. This fair value represented an approximate conversion rate of 15%. Each Contingent Capital share award had a grant-date fair value of CHF 14.45 and contains the same contractual term, vesting period, performance criteria and other terms and conditions as the original CCA.

Contingent Capital share award activities

	2018	2017	2016
Contingent Capital share awards			
Balance at beginning of period	**7.5**	**12.8**	**–**
Granted	0.0	0.3 [1]	15.6
Settled	(4.6)	(4.9)	(2.5)
Forfeited	(0.2)	(0.7) [2]	(0.3)
Balance at end of period	**2.7**	**7.5**	**12.8**
of which vested	0.7	1.3	1.0
of which unvested	2.0	6.2	11.8

1 Includes an adjustment for Contingent Capital share awards granted in the second quarter of 2017 to compensate for the proportionate dilution of Group shares resulting from the rights offering approved on May 18, 2017. The number of deferred share-based awards held by each individual was increased by 3.64%. The terms and conditions of the adjusted shares were the same as the existing share-based awards, thereby ensuring that holders of the awards were neither advantaged nor disadvantaged by the additional Contingent Capital shares granted.

2 Includes the transfer of the share-based awards of Neue Aargauer Bank AG, BANK-now AG and Swisscard AECS GmbH.

2008 Partner Asset Facility awards

During 2017, the final settlement of the outstanding PAF awards of CHF 789 million was made.

Other cash awards

During 2018, the Bank granted deferred fixed cash compensation of CHF 98 million to certain employees in the Americas. This compensation will be expensed in the Global Markets, Investment Banking & Capital Markets and International Wealth Management divisions over a three-year vesting period from the grant date. Amortization of this compensation totaled CHF 52 million in 2018.

During 2017, the Bank granted deferred cash retention awards of CHF 65 million relating to the reorganization of the Asia Pacific business. These awards will be expensed over a two-year vesting period from the grant date. Amortization of these awards totaled CHF 28 million in 2017 and was recognized in the Corporate Center. The Bank granted deferred fixed cash awards of CHF 90 million to certain employees in the US. These awards will be expensed in the Global Markets, Investment Banking & Capital Markets and International Wealth Management divisions over a three-year vesting period from the grant date. Amortization of these awards totaled CHF 48 million in 2017.

In 2016, the Bank granted deferred share and cash retention awards of CHF 249 million relating to the reorganization of the Global Markets and Investment Banking & Capital Markets businesses. These awards will be expensed over a vesting period of up to seven years from the grant date. Amortization of these awards in 2016 of CHF 118 million was recognized in the Corporate Center.

29 Related parties

The Group owns all of the Bank's outstanding voting registered shares. The Bank is involved in significant financing and other transactions with subsidiaries of the Group. The Bank generally enters into these transactions in the ordinary course of business and believes that these transactions are generally on market terms that could be obtained from unrelated third parties.

→ Refer to "Note 30 – Related parties" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Related party assets and liabilities

end of	2018	2017
Assets (CHF million)		
Net loans	5,305	4,100
Other assets	508	208
Total assets	**5,813**	**4,308**
Liabilities (CHF million)		
Due to banks/customer deposits	1,338	1,141
Short-term borrowings	493	489
Long-term debt	23,456	15,612
Other liabilities	1,122	851
Total liabilities	**26,409**	**18,093**

Related party revenues and expenses

in	2018	2017	2016
Revenues (CHF million)			
Interest and dividend income	10	2	(2)
Interest expense	(924)	(574)	(280)
Net interest income	**(914)**	**(572)**	**(282)**
Commissions and fees	87	46	41
Other revenues	72	67	119
Net revenues	**(755)**	**(459)**	**(122)**
Expenses (CHF million)			
Total operating expenses	**1,642**	**1,044** [1]	**152**

1 Prior period has been corrected.

Related party guarantees

end of	2018	2017
Guarantees (CHF million)		
Credit guarantees and similar instruments	5	4
Total guarantees	**5**	**4**

Executive Board and Board of Directors loans

	2018	2017	2016
Loans to members of the Executive Board (CHF million)			
Balance at beginning of period	**26** [1]	**25**	**26**
Additions	8	3	6
Reductions	(1)	(2)	(7)
Balance at end of period	**33** [1]	**26**	**25**
Loans to members of the Board of Directors (CHF million)			
Balance at beginning of period	**11** [2]	**10**	**8**
Additions	0	1	3
Reductions	(1)	0	(1)
Balance at end of period	**10** [2]	**11**	**10**

1 The number of individuals with outstanding loans at the beginning and the end of the year was seven and eight, respectively.
2 The number of individuals with outstanding loans at the beginning and the end of the year was four.

Liabilities due to own pension plans

Liabilities due to the Bank's own defined benefit pension plans as of December 31, 2018 and 2017 of CHF 735 million and CHF 336 million, respectively, were reflected in various liability accounts in the Bank's consolidated balance sheets.

30 Pension and other post-retirement benefits

The Bank participates in a defined benefit pension plan sponsored by the Group and has defined contribution pension plans, single-employer defined benefit pension plans and other post-retirement defined benefit plans. The Bank's principal plans are located in Switzerland, the US and the UK.

→ Refer to "Note 31 – Pension and other post-retirement benefits" in VI – Consolidated financial statements – Credit Suisse Group for further information on pension and other post-retirement benefits.

Defined contribution pension plans

The Bank contributes to various defined contribution pension plans primarily in the US and the UK as well as other countries throughout the world. During 2018, 2017 and 2016, the Bank contributed to these plans and recognized as expense CHF 140 million, CHF 156 million and CHF 160 million, respectively.

Defined benefit pension and other post-retirement benefit plans

Defined benefit pension plans

Group pension plan

The Bank covers pension requirements for its employees in Switzerland by participating in a defined benefit pension plan sponsored by the Group (Group plan), the Group's most significant defined benefit pension plan. The Group plan provides benefits in the event of retirement, death and disability. Various legal entities within the Group participate in the Group plan, which is set up as an independent trust domiciled in Zurich. Benefits in the Group plan are determined on the basis of the accumulated employer and employee contributions and accumulated interest credited. In accordance with US GAAP, the Group accounts for the Group plan as a single-employer defined benefit pension plan and uses the projected unit credit actuarial method to determine the net periodic benefit costs, the PBO and the accumulated benefit obligation (ABO). The Bank accounts for the defined benefit pension plan sponsored by the Group as a multi-employer pension plan because other legal entities within the Group also participate in the Group plan and the assets contributed by the Bank are not segregated into a separate account or restricted to provide benefits only to employees of the Bank. The assets contributed by the Bank are commingled with the assets contributed by the other legal entities of the Group and can be used to provide benefits to any employee of any participating legal entity. The Bank's contributions to the Group plan comprise 88% of the total assets contributed to the Group plan by all participating legal entities on an annual basis.

The Bank accounts for the Group plan on a defined contribution basis whereby it only recognizes the amounts required to be contributed to the Group plan during the period as net periodic pension expense and only recognizes a liability for any contributions due and unpaid. No other expenses or balance sheet amounts related to the Group plan were recognized by the Bank. In the savings section of the Group plan, the Bank's contribution varies between 7.5% and 25.0% of the pensionable salary depending on the employees' age.

During 2018, 2017 and 2016, the Bank contributed and recognized as expense CHF 377 million, CHF 379 million and CHF 438 million to the Group plan, respectively. The Bank expects to contribute CHF 323 million to the Group plan during 2019.

International pension plans

Various defined benefit pension plans cover the Bank's employees outside Switzerland. These plans provide benefits in the event of retirement, death, disability or termination of employment. Retirement benefits under the plans depend on age, contributions and salary. The Bank's principal defined benefit pension plans outside Switzerland are located in the US and in the UK. Both plans are funded, closed to new participants and have ceased accruing new benefits. Smaller defined benefit pension plans, both funded and unfunded, are operated in other locations.

Other post-retirement defined benefit plans

In the US, the Bank's defined benefit plans provide post-retirement benefits other than pension benefits that primarily focus on health and welfare benefits for certain retired employees. In exchange for the current services provided by the employee, the Bank promises to provide health and welfare benefits after the employee retires. The Bank's obligation for that compensation is incurred as employees render the services necessary to earn their post-retirement benefits.

Net periodic benefit costs of defined benefit plans

The net periodic benefit costs for defined benefit pension and other post-retirement defined benefit plans are the costs of the respective plan for a period during which an employee renders services. The actual amount to be recognized is determined using the standard actuarial methodology which considers, among other factors, current service cost, interest cost, expected return on plan assets and the amortization of both prior service cost/(credit) and actuarial losses/(gains) recognized in AOCI.

Components of net periodic benefit costs

in	International single-employer defined benefit pension plans			Other post-retirement defined benefit plans		
	2018	2017	2016	**2018**	2017	2016
Net periodic benefit costs (CHF million)						
Service costs on benefit obligation	16	22	20	0	0	0
Interest costs on benefit obligation	86	91	124	5	6	8
Expected return on plan assets	(114)	(133)	(175)	0	0	0
Amortization of recognized actuarial losses/(gains)	47	60	41	8	7	10
Settlement losses/(gains)	0	0	72	0	0	0
Curtailment losses/(gains)	(1)	(10)	0	0	0	0
Net periodic benefit costs/(credits)	**34**	**30**	**82**	**13**	**13**	**18**

Service costs on benefit obligation reflected in compensation and benefits – other for 2018, 2017 and 2016 were CHF 16 million, CHF 22 million and CHF 20 million, respectively. During the second half of 2016, lump-sum settlement offers were made to terminated vested members of the pension fund in the US. As a result of members accepting this offer, there was an additional cost of CHF 72 million relating to the settlement of pension obligations for these members.

Benefit obligation

The following table shows the changes in the PBO, the ABO, the fair value of plan assets and the amounts recognized in the consolidated balance sheets for the international single-employer defined benefit pension plans and other post-retirement defined benefit plans.

Obligations and funded status of the plans

in / end of	International single-employer defined benefit pension plans 2018	2017	Other post-retirement defined benefit plans 2018	2017
PBO (CHF million) [1]				
Beginning of the measurement period	**3,390**	**3,337**	**173**	**184**
Service cost	16	22	0	0
Interest cost	86	91	5	6
Plan amendments	10	0	0	0
Settlements	(1)	0	0	0
Curtailments	(1)	(11)	0	0
Special termination benefits	1	1	0	0
Actuarial losses/(gains)	(229)	171	(9)	2
Benefit payments	(233)	(287)	(11)	(11)
Exchange rate losses/(gains)	(88)	66	2	(8)
End of the measurement period	**2,951**	**3,390**	**160**	**173**
Fair value of plan assets (CHF million)				
Beginning of the measurement period	**4,088**	**4,000**	**0**	**0**
Actual return on plan assets	(141)	256	0	0
Employer contributions	19	22	11	11
Settlements	(1)	0	0	0
Benefit payments	(233)	(287)	(11)	(11)
Exchange rate gains/(losses)	(128)	97	0	0
End of the measurement period	**3,604**	**4,088**	**0**	**0**
Total funded status recognized (CHF million)				
Funded status of the plan – over/(underfunded)	653	698	(160)	(173)
Funded status recognized in the consolidated balance sheet as of December 31	**653**	**698**	**(160)**	**(173)**
Total amount recognized (CHF million)				
Noncurrent assets	1,001	1,058	0	0
Current liabilities	(10)	(11)	(11)	(11)
Noncurrent liabilities	(338)	(349)	(149)	(162)
Net amount recognized in the consolidated balance sheet as of December 31	**653**	**698**	**(160)**	**(173)**
ABO (CHF million) [2]				
End of the measurement period	**2,921**	**3,351**	**160**	**173**

1 Including estimated future salary increases.
2 Excluding estimated future salary increases.

The net amount recognized in the consolidated balance sheets as of December 31, 2018 and 2017 was an overfunding of CHF 493 million and CHF 525 million, respectively.

In 2018 and 2017, the Bank made contributions of CHF 19 million and CHF 22 million, respectively, to the international single-employer defined benefit pension plans and CHF 11 million and CHF 11 million, respectively, to the other post-retirement defined benefit plans. In 2019 the Bank expects to contribute CHF 16 million to the international single-employer defined benefit pension plans and CHF 11 million to other post-retirement defined benefit plans.

PBO or ABO in excess of plan assets

The following table shows the aggregate PBO and ABO, as well as the aggregate fair value of plan assets for those plans with PBO in excess of plan assets and those plans with ABO in excess of plan assets as of December 31, 2018 and 2017, respectively.

Defined benefit pension plans in which PBO or ABO exceeded plan assets

	PBO exceeds fair value of plan assets [1]		ABO exceeds fair value of plan assets [1]	
December 31	**2018**	2017	**2018**	2017
PBO/ABO exceeded plan assets (CHF million)				
PBO	1,336	1,464	1,325	1,447
ABO	1,312	1,433	1,304	1,420
Fair value of plan assets	989	1,104	978	1,088

1 Includes only those defined benefit pension plans where the PBO/ABO exceeded the fair value of plan assets.

Amount recognized in AOCI and OCI

The following table shows the actuarial gains/(losses) and prior service credit/(cost) which were recorded in AOCI and subsequently recognized as components of net periodic benefit costs.

Amounts recognized in AOCI, net of tax

	International single-employer defined benefit pension plans		Other post-retirement defined benefit plans		Total	
end of	**2018**	2017	**2018**	2017	**2018**	2017
Amounts recognized in AOCI (CHF million)						
Actuarial gains/(losses)	(327)	(345)	(23)	(36)	(350)	(381)
Prior service credit/(cost)	(11)	(1)	3	3	(8)	2
Total	**(338)**	**(346)**	**(20)**	**(33)**	**(358)**	**(379)**

The following tables show the changes in OCI due to actuarial gains/(losses) and prior service credit/(cost) recognized in AOCI during 2018 and 2017 and the amortization of the aforementioned items as components of net periodic benefit costs for these periods, as well as the amounts expected to be amortized in 2019.

Amounts recognized in OCI

	International single-employer defined benefit pension plans			Other post-retirement defined benefit plans			
in	Gross	Tax	Net	Gross	Tax	Net	**Total net**
2018 (CHF million)							
Actuarial gains/(losses)	(26)	1	(25)	9	(2)	7	(18)
Prior service credit/(cost)	(10)	0	(10)	0	0	0	(10)
Amortization of actuarial losses/(gains)	47	(4)	43	8	(2)	6	49
Total	**11**	**(3)**	**8**	**17**	**(4)**	**13**	**21**
2017 (CHF million)							
Actuarial gains/(losses)	(48)	14	(34)	(2)	1	(1)	(35)
Amortization of actuarial losses/(gains)	60	(7)	53	7	(3)	4	57
Total	**12**	**7**	**19**	**5**	**(2)**	**3**	**22**

Amounts in AOCI, net of tax, expected to be amortized

	International single-employer defined benefit pension plans	Other post-retirement defined benefit plans
Amortization in 2019 (CHF million)		
Amortization of actuarial losses/(gains)	15	2
Amortization of prior service cost/(credit)	1	0
Total	**16**	**2**

Assumptions

The measurement of both the net periodic benefit costs and the benefit obligation is determined using explicit assumptions, each of which individually represents the best estimate of a particular future event.

Weighted-average assumptions used to determine net periodic benefit costs and benefit obligation

	International single-employer defined benefit pension plans			Other post-retirement defined benefit plans		
December 31	**2018**	2017	2016	**2018**	2017	2016
Net periodic benefit cost (%)						
Discount rate – service cost	2.96	2.92	4.05	3.86	4.03	4.50
Discount rate – interest cost	2.77	2.79	4.05	3.28	3.48	4.50
Salary increases	2.97	3.55	3.56	–	–	–
Expected long-term rate of return on plan assets	3.22	3.88	5.07	–	–	–
Benefit obligation (%)						
Discount rate	3.30	2.83	3.10	4.37	3.70	4.21
Salary increases	2.90	2.97	3.55	–	–	–

Mortality tables and life expectancies for major plans

		Life expectancy at age 65 for a male member currently				Life expectancy at age 65 for a female member currently			
		aged 65		aged 45		aged 65		aged 45	
December 31		**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017
Life expectancy (years)									
UK	SAPS S2 light tables [1]	23.7	23.8	25.3	25.4	24.8	24.8	26.5	26.6
US	RP-2014 mortality tables [2]	21.5	21.5	22.7	22.7	23.4	23.3	24.5	24.4

1 95% of Self-Administered Pension Scheme (SAPS) S2 light tables were used, which included final CMI projections, with a long-term rate of improvement of 1.5% per annum.
2 The Retirement Projection 2014 (RP-2014) mortality tables were used, with projections based on the Social Security Administration's intermediate improvement scale.

Health care cost assumptions

The health care cost trend is used to determine the appropriate other post-retirement defined benefit costs. In determining those costs, an annual weighted-average rate is assumed in the cost of covered health care benefits.

The following table provides an overview of assumed health care cost trend rates and the sensitivity of a one percentage point increase or decrease of the rate.

Health care cost trend rates and sensitivity

in / end of	2018	2017	2016
Health care cost trend rate (%)			
Annual weighted-average health care cost trend rate [1]	8.7	8.3	8.3
Increase/(decrease) in post-retirement expenses (CHF million)			
One percentage point increase in health care cost trend rates	0.1	0.1	0.2
One percentage point decrease in health care cost trend rates	(0.1)	(0.1)	(0.2)
Increase/(decrease) in post-retirement benefit obligation (CHF million)			
One percentage point increase in health care cost trend rates	3	3	4
One percentage point decrease in health care cost trend rates	(3)	(3)	(4)

1 The annual health care cost trend rate is assumed to decrease gradually to achieve the long-term health care cost trend rate of 5.0% by 2026.

The annual health care cost trend rate used to determine the defined benefit cost for 2019 is 8.7%.

Plan assets and investment strategy

As of December 31, 2018 and 2017, no Group debt or equity securities were included in plan assets for the international single-employer defined benefit pension plans.

Fair value of plan assets

The following tables present the plan assets measured at fair value on a recurring basis as of December 31, 2018 and 2017, for the Bank's defined benefits plans.

Plan assets measured at fair value on a recurring basis

end of					2018					2017
	Level 1	Level 2	Level 3	Assets measured at net asset value per share	Total	Level 1	Level 2	Level 3	Assets measured at net asset value per share	Total
Plan assets at fair value (CHF million)										
Cash and cash equivalents	86	123	0	0	209	70	133	0	0	203
Debt securities	1,889	846	0	328	3,063	1,991	1,080	0	370	3,441
of which governments	1,574	5	0	0	1,579	1,622	9	0	0	1,631
of which corporates	315	841	0	328	1,484	369	1,071	0	370	1,810
Equity securities	52	12	0	74	138	55	14	0	147	216
Real estate – indirect	0	0	0	29	29	0	0	0	27	27
Alternative investments	0	19	0	61	80	0	33	0	76	109
of which hedge funds	0	0	0	61	61	0	0	0	76	76
of which other	0	19 [1]	0	0	19	0	33 [1]	0	0	33
Other investments	0	85	0	0	85	0	92	0	0	92
Total plan assets at fair value	**2,027**	**1,085**	**0**	**492**	**3,604**	**2,116**	**1,352**	**0**	**620**	**4,088**

1 Primarily related to derivative instruments.

Plan assets measured at fair value on a recurring basis for level 3

	Balance at beginning of period	Transfers in	Transfers out	Actual return on plan assets: On assets still held at reporting date	Actual return on plan assets: On assets sold during the period	Purchases, sales, settlements	Foreign currency translation impact	**Balance at end of period**
2017 (CHF million)								
Debt securities – corporates	7	0	0	0	0	(7)	0	0
Total plan assets at fair value	**7**	**0**	**0**	**0**	**0**	**(7)**	**0**	**0**

Plan asset allocation
The following table shows the plan asset allocation as of the measurement date calculated based on the fair value at that date including the performance of each asset class.

Plan asset allocation

December 31	**2018**	2017
Weighted-average (%)		
Cash and cash equivalents	5.8	5.0
Debt securities	85.0	84.0
Equity securities	3.8	5.3
Real estate	0.8	0.7
Alternative investments	2.2	2.7
Insurance	2.4	2.3
Total	**100.0**	**100.0**

The following table shows the target plan asset allocation for 2019 in accordance with the Bank's investment strategy. The target plan asset allocation is used to determine the expected return on plan assets to be considered in the net periodic benefit costs for 2019.

2019 target plan asset allocation

Weighted-average (%)	
Cash and cash equivalents	0.3
Debt securities	88.9
Equity securities	5.1
Real estate	0.6
Alternative investments	2.7
Insurance	2.4
Total	**100.0**

Estimated future benefit payments
The following table shows the estimated future benefit payments for defined benefit pension and other post-retirement defined benefit plans.

Estimated future benefit payments

	International single-employer defined benefit pension plans	Other post-retirement defined benefit plans
Payments (CHF million)		
2019	92	11
2020	90	12
2021	107	12
2022	98	12
2023	108	12
For five years thereafter	622	53

31 Derivatives and hedging activities

→ Refer to "Note 32 – Derivatives and hedging activities" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Hedge accounting

Cash flow hedges

As of the end of 2018, the maximum length of time over which the Bank hedged its exposure to the variability in future cash flows for forecasted transactions, excluding those forecasted transactions related to the payment of variable interest on existing financial instruments, was five years.

Fair value of derivative instruments

	Trading			Hedging [1]		
end of 2018	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)
Derivative instruments (CHF billion)						
Forwards and forward rate agreements	7,477.7	3.6	3.7	0.0	0.0	0.0
Swaps	13,221.5	49.0	45.4	44.6	0.1	0.2
Options bought and sold (OTC)	2,027.6	17.0	17.1	0.0	0.0	0.0
Futures	256.8	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	111.1	0.3	0.3	0.0	0.0	0.0
Interest rate products	**23,094.7**	**69.9**	**66.5**	**44.6**	**0.1**	**0.2**
Forwards	1,124.5	9.5	10.5	12.0	0.1	0.1
Swaps	456.6	14.4	17.4	0.0	0.0	0.0
Options bought and sold (OTC)	313.0	3.9	4.3	0.0	0.0	0.0
Futures	10.7	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	1.3	0.0	0.0	0.0	0.0	0.0
Foreign exchange products	**1,906.1**	**27.8**	**32.2**	**12.0**	**0.1**	**0.1**
Forwards	0.7	0.2	0.1	0.0	0.0	0.0
Swaps	152.9	4.1	5.0	0.0	0.0	0.0
Options bought and sold (OTC)	212.3	7.3	6.7	0.0	0.0	0.0
Futures	39.2	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	356.7	11.9	14.4	0.0	0.0	0.0
Equity/index-related products	**761.8**	**23.5**	**26.2**	**0.0**	**0.0**	**0.0**
Credit derivatives [2]	**469.4**	**5.4**	**6.6**	**0.0**	**0.0**	**0.0**
Forwards	8.2	0.1	0.1	0.0	0.0	0.0
Swaps	13.5	1.5	0.6	0.0	0.0	0.0
Options bought and sold (OTC)	9.5	0.1	0.1	0.0	0.0	0.0
Futures	9.3	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	1.9	0.0	0.0	0.0	0.0	0.0
Other products [3]	**42.4**	**1.7**	**0.8**	**0.0**	**0.0**	**0.0**
Total derivative instruments	**26,274.4**	**128.3**	**132.3**	**56.6**	**0.2**	**0.3**

The notional amount, PRV and NRV (trading and hedging) was CHF 26,331.0 billion, CHF 128.5 billion and CHF 132.6 billion, respectively, as of December 31, 2018.

1 Relates to derivative contracts that qualify for hedge accounting under US GAAP.

2 Primarily credit default swaps.

3 Primarily precious metals, commodity and energy products.

Fair value of derivative instruments (continued)

end of 2017	Trading Notional amount	Trading Positive replacement value (PRV)	Trading Negative replacement value (NRV)	Hedging [1] Notional amount	Hedging [1] Positive replacement value (PRV)	Hedging [1] Negative replacement value (NRV)
Derivative instruments (CHF billion)						
Forwards and forward rate agreements	8,509.3	1.2	1.2	0.0	0.0	0.0
Swaps	13,048.8	60.4	56.3	46.8	0.2	0.2
Options bought and sold (OTC)	2,374.5	25.2	24.0	0.0	0.0	0.0
Futures	547.8	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	419.2	0.2	0.3	0.0	0.0	0.0
Interest rate products	**24,899.6**	**87.0**	**81.8**	**46.8**	**0.2**	**0.2**
Forwards	1,387.9	10.7	11.1	13.3	0.0	0.2
Swaps	581.1	15.2	19.9	0.0	0.0	0.0
Options bought and sold (OTC)	414.8	4.6	4.8	2.1	0.0	0.0
Futures	13.0	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	5.4	0.0	0.0	0.0	0.0	0.0
Foreign exchange products	**2,402.2**	**30.5**	**35.8**	**15.4**	**0.0**	**0.2**
Forwards	0.9	0.0	0.1	0.0	0.0	0.0
Swaps	199.1	3.8	4.9	0.0	0.0	0.0
Options bought and sold (OTC)	221.8	8.6	8.5	0.0	0.0	0.0
Futures	32.8	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	373.2	9.3	10.3	0.0	0.0	0.0
Equity/index-related products	**827.8**	**21.7**	**23.8**	**0.0**	**0.0**	**0.0**
Credit derivatives [2]	**524.9**	**7.7**	**8.9**	**0.0**	**0.0**	**0.0**
Forwards	7.0	0.0	0.1	0.0	0.0	0.0
Swaps	17.9	1.5	1.4	0.0	0.0	0.0
Options bought and sold (OTC)	10.1	0.1	0.0	0.0	0.0	0.0
Futures	15.6	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	2.1	0.0	0.0	0.0	0.0	0.0
Other products [3]	**52.7**	**1.6**	**1.5**	**0.0**	**0.0**	**0.0**
Total derivative instruments	**28,707.2**	**148.5**	**151.8**	**62.2**	**0.2**	**0.4**

The notional amount, PRV and NRV (trading and hedging) was CHF 28,769.4 billion, CHF 148.7 billion and CHF 152.2 billion, respectively, as of December 31, 2017.

1 Relates to derivative contracts that qualify for hedge accounting under US GAAP.

2 Primarily credit default swaps.

3 Primarily precious metals, commodity and energy products.

Fair value hedges

in	2018	2017	2016
Gains/(losses) recognized in income on derivatives (CHF million)			
Interest rate products	(415)	(285)	(116)
Total	**(415)**	**(285)**	**(116)**
Gains/(losses) recognized in income on hedged items (CHF million)			
Interest rate products	423	290	111
Total	**423**	**290**	**111**
Details of fair value hedges (CHF million)			
Net gains/(losses) on the ineffective portions	8	5	(5)

Represents gains/(losses) recognized in trading revenues.

Cash flow hedges

in	2018	2017	2016
Gains/(losses) recognized in AOCI on derivatives (CHF million)			
Interest rate products	(76)	(56)	(5)
Foreign exchange products	(86)	(31)	(3)
Total	**(162)**	**(87)**	**(8)**
Gains/(losses) reclassified from AOCI into income (CHF million)			
Interest rate products [1]	(85)	(11)	29
Foreign exchange products	(42) [2,3]	(17) [2]	(7) [3]
Total	**(127)**	**(28)**	**22**
Details of cash flow hedges (CHF million)			
Net gains/(losses) on the ineffective portions [2]	0	(1)	(1)

Represents gains/(losses) on effective portion.
1 Included in interest and other dividend income.
2 Included in trading revenues.
3 Included in total other operating expenses.

The net loss associated with cash flow hedges expected to be reclassified from AOCI within the next 12 months was CHF 39 million.

Net investment hedges

in	2018	2017	2016
Gains/(losses) recognized in AOCI on derivatives (CHF million)			
Foreign exchange products	131	(475)	(537)
Total	**131**	**(475)**	**(537)**

Represents gains/(losses) on effective portion.

The Bank includes all derivative instruments not included in hedge accounting relationships in its trading activities.

→ Refer to "Note 7 – Trading revenues" for gains and losses on trading activities by product type.

Disclosures relating to contingent credit risk

The following table provides the Bank's current net exposure from contingent credit risk relating to derivative contracts with bilateral counterparties and special purpose entities (SPEs) that include credit support agreements, the related collateral posted and the additional collateral required in a one-notch, two-notch and a three-notch downgrade event, respectively. The table also includes derivative contracts with contingent credit risk features without credit support agreements that have accelerated termination event conditions. The current net exposure for derivative contracts with bilateral counterparties and contracts with accelerated termination event conditions is the aggregate fair value of derivative instruments that were in a net liability position. For SPEs, the current net exposure is the contractual amount that is used to determine the collateral payable in the event of a downgrade. The contractual amount could include both the negative replacement value and a percentage of the notional value of the derivative.

Contingent credit risk

				2018				2017
end of	Bilateral counterparties	Special purpose entities	Accelerated terminations	**Total**	Bilateral counterparties	Special purpose entities	Accelerated terminations	**Total**
Contingent credit risk (CHF billion)								
Current net exposure	3.6	0.1	0.3	**4.0**	5.4	0.1	1.2	**6.7**
Collateral posted	3.4	0.1	–	**3.5**	4.4	0.1	–	**4.5**
Impact of a one-notch downgrade event	0.2	0.0	0.0	**0.2**	0.2	0.1	0.1	**0.4**
Impact of a two-notch downgrade event	0.9	0.0	0.1	**1.0**	0.9	0.2	0.5	**1.6**
Impact of a three-notch downgrade event	1.0	0.1	0.2	**1.3**	1.0	0.4	0.7	**2.1**

The impact of a downgrade event reflects the amount of additional collateral required for bilateral counterparties and special purpose entities and the amount of additional termination expenses for accelerated terminations, respectively.

Credit derivatives

→ Refer to "Note 32 – Derivatives and hedging activities" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Credit protection sold/purchased

The following tables do not include all credit derivatives and differ from the credit derivatives in the "Fair value of derivative instruments" table. This is due to the exclusion of certain credit derivative instruments under US GAAP, which defines a credit derivative as a derivative instrument (a) in which one or more of its underlyings are related to the credit risk of a specified entity (or a group of entities) or an index based on the credit risk of a group of entities and (b) that exposes the seller to potential loss from credit risk-related events specified in the contract.

Total return swaps (TRS) of CHF 9.7 billion and CHF 6.7 billion as of December 31, 2018 and 2017, respectively, were also excluded because a TRS does not expose the seller to potential loss from credit risk-related events specified in the contract. A TRS only provides protection against a loss in asset value and not against additional amounts as a result of specific credit events.

Credit protection sold/purchased

					2018					2017
end of	Credit protection sold	Credit protection purchased [1]	**Net credit protection (sold)/ purchased**	Other protection purchased	Fair value of credit protection sold	Credit protection sold	Credit protection purchased [1]	**Net credit protection (sold)/ purchased**	Other protection purchased	Fair value of credit protection sold
Single-name instruments (CHF billion)										
Investment grade [2]	(46.0)	43.1	(2.9)	11.8	0.2	(57.6)	53.8	(3.8)	15.3	0.9
Non-investment grade	(26.2)	24.3	(1.9)	17.7	(0.2)	(28.2)	25.5	(2.7)	14.3	0.5
Total single-name instruments	**(72.2)**	**67.4**	**(4.8)**	**29.5**	**0.0**	**(85.8)**	**79.3**	**(6.5)**	**29.6**	**1.4**
of which sovereign	(16.4)	15.0	(1.4)	5.5	(0.1)	(21.0)	19.2	(1.8)	6.2	0.2
of which non-sovereign	(55.8)	52.4	(3.4)	24.0	0.1	(64.8)	60.1	(4.7)	23.4	1.2
Multi-name instruments (CHF billion)										
Investment grade [2]	(102.9)	102.4	(0.5)	25.1	(0.8)	(107.1)	104.7	(2.4)	59.3	0.7
Non-investment grade	(26.5)	25.3	(1.2)	8.4 [3]	0.1	(21.0)	19.6	(1.4)	12.0 [3]	0.9
Total multi-name instruments	**(129.4)**	**127.7**	**(1.7)**	**33.5**	**(0.7)**	**(128.1)**	**124.3**	**(3.8)**	**71.3**	**1.6**
of which sovereign	(0.2)	0.2	0.0	0.0	0.0	(0.3)	0.3	0.0	0.3	0.0
of which non-sovereign	(129.2)	127.5	(1.7)	33.5	(0.7)	(127.8)	124.0	(3.8)	71.0	1.6
Total instruments (CHF billion)										
Investment grade [2]	(148.9)	145.5	(3.4)	36.9	(0.6)	(164.7)	158.5	(6.2)	74.6	1.6
Non-investment grade	(52.7)	49.6	(3.1)	26.1	(0.1)	(49.2)	45.1	(4.1)	26.3	1.4
Total instruments	**(201.6)**	**195.1**	**(6.5)**	**63.0**	**(0.7)**	**(213.9)**	**203.6**	**(10.3)**	**100.9**	**3.0**
of which sovereign	(16.6)	15.2	(1.4)	5.5	(0.1)	(21.3)	19.5	(1.8)	6.5	0.2
of which non-sovereign	(185.0)	179.9	(5.1)	57.5	(0.6)	(192.6)	184.1	(8.5)	94.4	2.8

1 Represents credit protection purchased with identical underlyings and recoveries.
2 Based on internal ratings of BBB and above.
3 Includes synthetic securitized loan portfolios.

The following table reconciles the notional amount of credit derivatives included in the table "Fair value of derivative instruments" to the table "Credit protection sold/purchased".

Credit derivatives

end of	**2018**	2017
Credit derivatives (CHF billion)		
Credit protection sold	201.6	213.9
Credit protection purchased	195.1	203.6
Other protection purchased	63.0	100.9
Other instruments [1]	9.7	6.5
Total credit derivatives	**469.4**	**524.9**

1 Consists of total return swaps and other derivative instruments.

Maturity of credit protection sold

end of	Maturity less than 1 year	Maturity between 1 to 5 years	Maturity greater than 5 years	**Total**
2018 (CHF billion)				
Single-name instruments	13.1	54.9	4.2	72.2
Multi-name instruments	28.8	80.6	20.0	129.4
Total instruments	**41.9**	**135.5**	**24.2**	**201.6**
2017 (CHF billion)				
Single-name instruments	21.6	59.4	4.8	85.8
Multi-name instruments	31.2	79.9	17.0	128.1
Total instruments	**52.8**	**139.3**	**21.8**	**213.9**

32 Guarantees and commitments

Guarantees

end of	Maturity less than 1 year	Maturity between 1 to 3 years	Maturity between 3 to 5 years	Maturity greater than 5 years	**Total gross amount**	Total net amount [1]	Carrying value	Collateral received
2018 (CHF million)								
Credit guarantees and similar instruments	2,229	439	218	402	3,288	3,199	14	1,752
Performance guarantees and similar instruments	5,008	1,344	552	240	7,144	6,278	44	3,153
Derivatives [2]	17,594	3,995	1,256	778	23,623	23,623	919	– [3]
Other guarantees	4,325	1,405	640	517	6,887	6,814	56	4,169
Total guarantees	**29,156**	**7,183**	**2,666**	**1,937**	**40,942**	**39,914**	**1,033**	**9,074**
2017 (CHF million)								
Credit guarantees and similar instruments	1,820	520	314	435	3,089	2,840	12	1,603
Performance guarantees and similar instruments	4,931	1,639	373	200	7,143	6,216	44	3,012
Derivatives [2]	15,520	6,860	1,397	727	24,504	24,504	403	– [3]
Other guarantees	4,461	1,006	708	503	6,678	6,673	47	3,833
Total guarantees	**26,732**	**10,025**	**2,792**	**1,865**	**41,414**	**40,233**	**506**	**8,448**

1 Total net amount is computed as the gross amount less any participations.
2 Excludes derivative contracts with certain active commercial and investment banks and certain other counterparties, as such contracts can be cash settled and the Bank had no basis to conclude it was probable that the counterparties held, at inception, the underlying instruments.
3 Collateral for derivatives accounted for as guarantees is not significant.

→ Refer to "Note 33 – Guarantees and commitments" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Deposit-taking banks and securities dealers in Switzerland and certain other European countries are required to ensure the payout of privileged deposits in case of specified restrictions or compulsory liquidation of a deposit-taking bank. In Switzerland, deposit-taking banks and securities dealers jointly guarantee an amount of up to CHF 6 billion. Upon occurrence of a payout event triggered by a specified restriction of business imposed by the Swiss Financial Market Supervisory Authority FINMA (FINMA) or by the compulsory liquidation of another deposit-taking bank, the Bank's contribution will be calculated based on its share of privileged deposits in proportion to total privileged deposits. Based on FINMA's estimate for the Bank, the Bank's share in the deposit insurance guarantee program for the period July 1, 2018 to June 30, 2019 is CHF 0.5 billion. These deposit insurance guarantees were reflected in other guarantees.

Representations and warranties on residential mortgage loans sold

In connection with the Global Markets division's sale of US residential mortgage loans, the Bank has provided certain representations and warranties relating to the loans sold.

Lease commitments

CHF million	
2019	427
2020	376
2021	262
2022	239
2023	198
Thereafter	1,292
Future operating lease commitments	**2,794**
Less minimum non-cancellable sublease rentals	436
Total net future minimum lease commitments	**2,358**

Rental expense for operating leases

in	**2018**	2017	2016
CHF million			
Minimum rental expense	446	528	550
Sublease rental income	(66)	(65)	(89)
Total net expenses for operating leases	**380**	**463**	**461**

Operating lease commitments

Sale-leaseback transactions

During 2018, we entered into one sale-leaseback transaction in respect of own property, which was recognized as an operating lease arrangement with a lease term of ten years. In 2017, we did not enter into any sale-leaseback transactions, and in 2016, the Bank entered into several smaller sale-leaseback transactions in respect of own property, which were all recognized as operating lease arrangements with lease terms of two years. The total contractual rental expenses were CHF 5 million for the 2018 sale-leaseback transaction and CHF 19 million for the 2016 sale-leaseback transactions.

Other commitments

end of	Maturity less than 1 year	Maturity between 1 to 3 years	Maturity between 3 to 5 years	Maturity greater than 5 years	**Total gross amount**	Total net amount [1]	Collateral received
2018 (CHF million)							
Irrevocable commitments under documentary credits	5,056	182	0	0	5,238	5,077	3,651
Irrevocable loan commitments	26,882	34,188	45,938	9,065	116,073 [2]	111,967	57,153
Forward reverse repurchase agreements	31	0	0	0	31	31	31
Other commitments	329	11	119	33	492	492	4
Total other commitments	**32,298**	**34,381**	**46,057**	**9,098**	**121,834**	**117,567**	**60,839**
2017 (CHF million)							
Irrevocable commitments under documentary credits	4,976	113	1	1	5,091	5,000	3,218
Irrevocable loan commitments	24,296	33,649	40,425	8,031	106,401 [2]	101,270	42,307
Forward reverse repurchase agreements	12	0	0	0	12	12	12
Other commitments	219	13	11	104	347	347	0
Total other commitments	**29,503**	**33,775**	**40,437**	**8,136**	**111,851**	**106,629**	**45,537**

1 Total net amount is computed as the gross amount less any participations.
2 Irrevocable loan commitments do not include a total gross amount of CHF 113,593 million and CHF 108,665 million of unused credit limits as of December 31, 2018 and 2017, respectively, which were revocable at the Bank's sole discretion upon notice to the client.

33 Transfers of financial assets and variable interest entities

Transfers of financial assets

→ Refer to "Note 34 – Transfers of financial assets and variable interest entities" in VI – Credit Suisse Group – Consolidated financial statements for further information.

Securitizations

The following table provides the gains or losses and proceeds from the transfer of assets relating to 2018, 2017 and 2016 securitizations of financial assets that qualify for sale accounting and subsequent derecognition, along with the cash flows between the Bank and the SPEs used in any securitizations in which the Bank still has continuing involvement, regardless of when the securitization occurred.

Securitizations

in	**2018**	2017	2016
Gains/(losses) and cash flows (CHF million)			
CMBS			
Net gain/(loss) [1]	10	37	(2)
Proceeds from transfer of assets	5,861	6,604	3,954
Cash received on interests that continue to be held	41	28	69
RMBS			
Net gain/(loss) [1]	(1)	0	(4)
Proceeds from transfer of assets	22,536	14,817	9,866
Purchases of previously transferred financial assets or its underlying collateral	0	(2)	0
Servicing fees	3	3	2
Cash received on interests that continue to be held	576	368	529
Other asset-backed financings			
Net gain [1]	77	31	26
Proceeds from transfer of assets	6,422	7,664	2,813
Purchases of previously transferred financial assets or its underlying collateral [2]	(318)	(380)	(68)
Fees [3]	142	135	137
Cash received on interests that continue to be held	3	4	2

1 Includes underwriting revenues, deferred origination fees, gains or losses on the sale of collateral to the SPE and gains or losses on the sale of newly issued securities to third parties, but excludes net interest income on assets prior to the securitization. The gains or losses on the sale of the collateral is the difference between the fair value on the day prior to the securitization pricing date and the sale price of the loans.
2 Line item was omitted in 2017 and 2016.
3 Represents management fees and performance fees earned for investment management services provided to managed CLOs.

Continuing involvement in transferred financial assets

The following table provides the outstanding principal balance of assets to which the Bank continued to be exposed after the transfer of the financial assets to any SPE and the total assets of the SPE as of December 31, 2018 and 2017, regardless of when the transfer of assets occurred.

Principal amounts outstanding and total assets of SPEs resulting from continuing involvement

end of	**2018**	2017
CHF million		
CMBS		
Principal amount outstanding	25,330	19,918
Total assets of SPE	35,760	31,586
RMBS		
Principal amount outstanding	40,253	35,645
Total assets of SPE	41,242	36,770
Other asset-backed financings		
Principal amount outstanding	23,036	20,916
Total assets of SPE	47,542	39,330

Principal amount outstanding relates to assets transferred from the Bank and does not include principle amounts for assets transferred from third parties.

Fair value of beneficial interests

The fair value measurement of beneficial interests held at the time of transfer and as of the reporting date that result from any continuing involvement is determined using fair value estimation techniques, such as the present value of estimated future cash flows that incorporate assumptions that market participants customarily use in these valuation techniques. The fair value of the assets or liabilities that result from any continuing involvement does not include any benefits from financial instruments that the Bank may utilize to hedge the inherent risks.

Key economic assumptions at the time of transfer

→ Refer to "Note 34 – Financial instruments" for further information on the fair value hierarchy.

Key economic assumptions used in measuring fair value of beneficial interests at time of transfer

	2018		2017		2016	
at time of transfer, in	CMBS	RMBS	CMBS	RMBS	CMBS	RMBS
CHF million, except where indicated						
Fair value of beneficial interests	662	3,613	445	2,400	69	2,068
of which level 2	640	3,509	444	2,221	69	1,827
of which level 3	22	103	1	179	0	241
Weighted-average life, in years	6.6	7.8	10.0	6.0	8.4	7.2
Prepayment speed assumption (rate per annum), in % [1]	– [2]	5.0–13.5	– [2]	1.0–22.9	– [2]	5.0–33.0
Cash flow discount rate (rate per annum), in % [3]	3.6–9.8	3.0–13.6	2.4–9.0	2.0–29.5	2.4–4.9	1.2–24.4
Expected credit losses (rate per annum), in % [4]	1.8–3.1	2.3–7.2	0.6–3.4	0.8–6.3	0.0–0.0	2.5–11.2

Transfers of assets in which the Bank does not have beneficial interests are not included in this table.

1 Prepayment speed assumption (PSA) is an industry standard prepayment speed metric used for projecting prepayments over the life of a residential mortgage loan. PSA utilizes the constant prepayment rate (CPR) assumptions. A 100% prepayment assumption assumes a prepayment rate of 0.2% per annum of the outstanding principal balance of mortgage loans in the first month. This increases by 0.2 percentage points thereafter during the term of the mortgage loan, leveling off to a CPR of 6% per annum beginning in the 30th month and each month thereafter during the term of the mortgage loan. 100 PSA equals 6 CPR.

2 To deter prepayment, commercial mortgage loans typically have prepayment protection in the form of prepayment lockouts and yield maintenances.

3 The rate was based on the weighted-average yield on the beneficial interests.

4 The range of expected credit losses only reflects instruments with an expected credit loss greater than zero unless all of the instruments have an expected credit loss of zero.

Key economic assumptions as of the reporting date

The following table provides the sensitivity analysis of key economic assumptions used in measuring the fair value of beneficial interests held in SPEs as of December 31, 2018 and 2017.

Key economic assumptions used in measuring fair value of beneficial interests held in SPEs

	2018			2017		
end of	CMBS [1]	RMBS	Other asset-backed financing activities [2]	CMBS [1]	RMBS	Other asset-backed financing activities [2]
CHF million, except where indicated						
Fair value of beneficial interests	805	2,006	226	579	1,985	665
of which non-investment grade	112	307	26	100	508	50
Weighted-average life, in years	5.7	7.9	5.6	4.7	8.1	6.4
Prepayment speed assumption (rate per annum), in % [3]	–	2.0–20.0	–	–	1.0–25.0	–
Impact on fair value from 10% adverse change	–	(22.3)	–	–	(35.0)	–
Impact on fair value from 20% adverse change	–	(43.2)	–	–	(68.1)	–
Cash flow discount rate (rate per annum), in % [4]	3.4–14.3	3.0–21.3	1.0–21.2	2.7–12.3	1.9–30.6	1.0–21.2
Impact on fair value from 10% adverse change	(20.7)	(52.1)	(2.9)	(8.8)	(49.2)	(12.4)
Impact on fair value from 20% adverse change	(37.6)	(101.3)	(5.7)	(17.0)	(95.3)	(24.5)
Expected credit losses (rate per annum), in % [5]	0.8–4.7	0.6–18.8	1.0–21.2	0.6–6.3	0.5–28.2	0.7–21.2
Impact on fair value from 10% adverse change	(10.2)	(23.8)	(2.4)	(3.9)	(23.6)	(6.6)
Impact on fair value from 20% adverse change	(17.3)	(46.7)	(4.8)	(7.8)	(46.1)	(12.9)

1 To deter prepayment, commercial mortgage loans typically have prepayment protection in the form of prepayment lockouts and yield maintenances.

2 CDOs within this category are generally structured to be protected from prepayment risk.

3 PSA is an industry standard prepayment speed metric used for projecting prepayments over the life of a residential mortgage loan. PSA utilizes the CPR assumptions. A 100% prepayment assumption assumes a prepayment rate of 0.2% per annum of the outstanding principal balance of mortgage loans in the first month. This increases by 0.2 percentage points thereafter during the term of the mortgage loan, leveling off to a CPR of 6% per annum beginning in the 30th month and each month thereafter during the term of the mortgage loan. 100 PSA equals 6 CPR.

4 The rate was based on the weighted-average yield on the beneficial interests.

5 The range of expected credit losses only reflects instruments with an expected credit loss greater than zero unless all of the instruments have an expected credit loss of zero.

Transfers of financial assets where sale treatment was not achieved
The following table provides the carrying amounts of transferred financial assets and the related liabilities where sale treatment was not achieved as of December 31, 2018 and 2017.

Carrying amounts of transferred financial assets and liabilities where sale treatment was not achieved

end of	2018	2017
CHF million		
Other asset-backed financings		
Trading assets	255	347
Other assets	0	48
Liability to SPE, included in other liabilities	(255)	(395)

Securities sold under repurchase agreements and securities lending transactions accounted for as secured borrowings

The following tables provide the gross obligation relating to securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral by the class of collateral pledged and by remaining contractual maturity as of December 31, 2018 and 2017.

Securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral – by class of collateral pledged

end of	2018	2017
CHF billion		
Government debt securities	31.1	31.4
Corporate debt securities	9.6	15.1
Asset-backed securities	1.8	5.0
Other	0.2	0.6
Securities sold under repurchase agreements	**42.7**	**52.1**
Government debt securities	1.4	2.7
Corporate debt securities	0.2	0.4
Equity securities	3.2	4.8
Other	0.2	0.3
Securities lending transactions	**5.0**	**8.2**
Government debt securities	3.6	1.8
Corporate debt securities	1.0	0.6
Asset-backed securities	0.1	0.0
Equity securities	37.0	35.6
Other	0.0	0.1
Obligation to return securities received as collateral, at fair value	**41.7**	**38.1**
Total	**89.4**	**98.4**

Securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral – by remaining contractual maturity

		Remaining contractual maturities			
end of	On demand [1]	Up to 30 days [2]	31-90 days	More than 90 days	Total
2018 (CHF billion)					
Securities sold under repurchase agreements	7.4	26.3	6.7	2.3	42.7
Securities lending transactions	4.1	0.9	0.0	0.0	5.0
Obligation to return securities received as collateral, at fair value	41.4	0.1	0.2	0.0	41.7
Total	**52.9**	**27.3**	**6.9**	**2.3**	**89.4**
2017 (CHF billion)					
Securities sold under repurchase agreements	7.2	32.5	5.2	7.2	52.1
Securities lending transactions	5.7	2.2	0.0	0.3	8.2
Obligation to return securities received as collateral, at fair value	37.9	0.0	0.0	0.2	38.1
Total	**50.8**	**34.7**	**5.2**	**7.7**	**98.4**

1 Includes contracts with no contractual maturity that may contain termination arrangements subject to a notice period.
2 Includes overnight transactions.

→ Refer to "Note 26 – Offsetting of financial assets and financial liabilities" for further information on the gross amount of securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral and the net amounts disclosed in the consolidated balance sheets.

Variable interest entities

→ Refer to "Note 34 – Transfers of financial assets and variable interest entities" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Commercial paper conduit

The Bank acts as the administrator and provider of liquidity and credit enhancement facilities for Alpine Securitization Ltd (Alpine), a multi-seller asset-backed CP conduit used for client and Bank financing purposes. Alpine discloses to CP investors certain portfolio and asset data and submits its portfolio to rating agencies for public ratings. This CP conduit purchases assets such as loans and receivables or enters into reverse repurchase agreements and finances such activities through the issuance of CP backed by these assets. The CP conduit can enter into liquidity facilities with third-party entities pursuant to which it may be required to purchase assets from these entities to provide them with liquidity and credit support. The financing transactions are structured to provide credit support to the CP conduit in the form of over-collateralization and other asset-specific enhancements. Alpine is a separate legal entity that is wholly owned by the Bank. However, its assets are available to satisfy only the claims of its creditors. In addition, the Bank, as administrator and liquidity facility provider, has significant exposure to and power over the activities of Alpine. Alpine is considered a VIE for accounting purposes and the Bank is deemed the primary beneficiary and consolidates this entity.

The overall average maturity of Alpine's outstanding CP was approximately 129 days as of December 31, 2018. Alpine was rated A-1(sf) by Standard & Poor's and P-1(sf) by Moody's and had exposures mainly in a reverse repurchase agreement with a Bank entity, consumer loans and car loans.

The Bank's commitment to this CP conduit consists of obligations under liquidity agreements. The liquidity agreements are asset-specific arrangements, which require the Bank to provide short-term financing to the CP conduit or to purchase assets from the CP conduit in certain circumstances, including a lack of liquidity in the CP market such that the CP conduit cannot refinance its obligations or, in some cases, a default of an underlying asset. The asset-specific credit enhancements provided by the client seller of the assets remain unchanged as a result of such a purchase. In entering into such agreements, the Bank reviews the credit risk associated with these transactions on the same basis that would apply to other extensions of credit.

The Bank's economic risks associated with the CP conduit are included in the Bank's risk management framework including counterparty, economic risk capital and scenario analysis.

Consolidated VIEs

The Bank has significant involvement with VIEs in its role as a financial intermediary on behalf of clients. The Bank consolidated all VIEs related to financial intermediation for which it was the primary beneficiary.

Consolidated VIEs in which the Bank was the primary beneficiary

			Financial intermediation				
end of	CDO/ CLO	CP Conduit	Securi- tizations	Funds	Loans	Other	**Total**
2018 (CHF million)							
Cash and due from banks	15	1	68	17	52	20	173
Trading assets	72	0	170	418	944	12	1,616
Investment securities	0	0	1,432	0	0	0	1,432
Other investments	0	0	0	153	1,073	279	1,505
Net loans	0	0	119	0	23	245	387
Premises and equipment	0	0	0	0	18	0	18
Other assets	57	16	863	4	32	1,037	2,009
of which loans held-for-sale	57	0	107	0	3	0	167
Total assets of consolidated VIEs	**144**	**17**	**2,652**	**592**	**2,142**	**1,593**	**7,140**
Trading liabilities	0	0	0	0	3	0	3
Short-term borrowings	0	5,465	0	0	0	0	5,465
Long-term debt	48	0	1,487	174	26	29	1,764
Other liabilities	0	43	1	8	98	127	277
Total liabilities of consolidated VIEs	**48**	**5,508**	**1,488**	**182**	**127**	**156**	**7,509**
2017 (CHF million)							
Cash and due from banks	22	0	96	32	70	12	232
Trading assets	17	0	10	179	1,122	20	1,348
Investment securities	0	0	381	0	0	0	381
Other investments	0	0	0	350	1,197	286	1,833
Net loans	0	0	0	3	21	243	267
Premises and equipment	0	0	0	0	128	0	128
Other assets	83	4	1,070	21	31	1,187	2,396
of which loans held-for-sale	83	0	152	0	3	0	238
Total assets of consolidated VIEs	**122**	**4**	**1,557**	**585**	**2,569**	**1,748**	**6,585**
Trading liabilities	0	0	0	0	3	0	3
Short-term borrowings	0	6,672 [1]	0	0	0	0	6,672
Long-term debt	51	0	752	0	26	34	863
Other liabilities	0	237 [1]	1	26	111	66	441
Total liabilities of consolidated VIEs	**51**	**6,909**	**753**	**26**	**140**	**100**	**7,979**

1 Amounts were omitted in prior periods and have been corrected.

Non-consolidated VIEs

Total assets of non-consolidated VIEs are the assets of the non-consolidated VIEs themselves and are typically unrelated to the exposures the Bank has with these entities due to variable interests held by third-party investors. Accordingly, these amounts are not considered for risk management purposes.

Non-consolidated VIEs

		Financial intermediation				
end of	CDO/ CLO	Securi- tizations	Funds	Loans	Other	**Total**
2018 (CHF million)						
Trading assets	209	4,527	927	183	3,703	9,549
Net loans	154	1,475	1,591	5,246	430	8,896
Other assets	3	19	112	0	444	578
Total variable interest assets	**366**	**6,021**	**2,630**	**5,429**	**4,577**	**19,023**
Maximum exposure to loss	**366**	**7,637**	**2,645**	**8,680**	**5,150**	**24,478**
Total assets of non-consolidated VIEs	**7,033**	**96,483**	**65,848**	**20,804**	**8,784**	**198,952**
2017 (CHF million)						
Trading assets	746	4,573	1,014	224	2,388	8,945
Net loans	620	1,563	2,438	4,591	328	9,540
Other assets	9	11	55	1	437	513
Total variable interest assets	**1,375**	**6,147**	**3,507**	**4,816**	**3,153**	**18,998**
Maximum exposure to loss	**1,375**	**7,617**	**3,514**	**7,061**	**4,079**	**23,646**
Total assets of non-consolidated VIEs	**15,874**	**64,839**	**63,504**	**16,270**	**6,265**	**166,752**

34 Financial instruments

→ Refer to "Note 35 – Financial instruments" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Assets and liabilities measured at fair value on a recurring basis

end of 2018	Level 1	Level 2	Level 3	Netting impact [1]	Assets measured at net asset value per share [2]	Total
Assets (CHF million)						
Cash and due from banks	0	115	0	–	–	115
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	0	81,818	0	–	–	81,818
Securities received as collateral	37,962	3,704	30	–	–	41,696
Trading assets	76,178	156,239	8,814	(109,930)	1,126	132,427
of which debt securities	23,726	36,402	2,076	–	12	62,216
of which foreign government	23,547	4,542	232	–	–	28,321
of which corporates	66	8,065	1,260	–	12	9,403
of which RMBS	0	19,652	269	–	–	19,921
of which equity securities	42,812	2,459	132	–	1,114	46,517
of which derivatives	8,000	117,034	3,298	(109,930)	–	18,402
of which interest rate products	3,557	65,823	507	–	–	–
of which foreign exchange products	25	27,526	258	–	–	–
of which equity/index-related products	4,415	18,059	1,054	–	–	–
of which credit derivatives	0	4,739	673	–	–	–
of which other derivatives	2	633	806	–	–	–
of which other trading assets	1,640	344	3,308	–	–	5,292
Investment securities	0	2,743	166	–	–	2,909
Other investments	14	7	1,309	–	1,100	2,430
of which life finance instruments	0	0	1,067	–	–	1,067
Loans	0	10,549	4,324	–	–	14,873
of which real estate	0	146	515	–	–	661
of which commercial and industrial loans	0	3,976	1,949	–	–	5,925
of which financial institutions	0	4,164	1,391	–	–	5,555
Other intangible assets (mortgage servicing rights)	0	0	163	–	–	163
Other assets	117	5,807	1,543	(204)	–	7,263
of which loans held-for-sale	0	4,238	1,235	–	–	5,473
Total assets at fair value	**114,271**	**260,982**	**16,349**	**(110,134)**	**2,226**	**283,694**

1 Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.
2 In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis (continued)

end of 2018	Level 1	Level 2	Level 3	Netting impact [1]	Liabilities measured at net asset value per share [2]	Total
Liabilities (CHF million)						
Due to banks	0	406	0	–	–	406
Customer deposits	0	2,839	453	–	–	3,292
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	0	14,828	0	–	–	14,828
Obligation to return securities received as collateral	37,962	3,704	30	–	–	41,696
Trading liabilities	31,940	123,737	3,589	(117,105)	10	42,171
of which debt securities	4,462	3,511	25	–	–	7,998
of which foreign government	4,328	255	0	–	–	4,583
of which equity securities	18,785	118	37	–	10	18,950
of which derivatives	8,693	120,108	3,527	(117,105)	–	15,223
of which interest rate products	3,699	62,573	189	–	–	–
of which foreign exchange products	32	31,983	160	–	–	–
of which equity/index-related products	4,961	19,788	1,500	–	–	–
of which credit derivatives	0	5,485	1,140	–	–	–
Short-term borrowings	0	7,284	784	–	–	8,068
Long-term debt	0	50,356	12,671	–	–	63,027
of which structured notes over one year and up to two years	0	7,242	528	–	–	7,770
of which structured notes over two years	0	28,215	11,800	–	–	40,015
Other liabilities	0	7,877	1,327	(221)	–	8,983
Total liabilities at fair value	**69,902**	**211,031**	**18,854**	**(117,326)**	**10**	**182,471**

1 Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.

2 In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis (continued)

end of 2017	Level 1	Level 2	Level 3	Netting impact [1]	Assets measured at net asset value per share [2]	**Total**
Assets (CHF million)						
Cash and due from banks	0	212	0	–	–	212
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	0	77,498	0	–	–	77,498
Securities received as collateral	36,697	1,331	46	–	–	38,074
of which debt securities	576	802	0	–	–	1,378
of which corporates	0	726	0	–	–	726
of which equity securities	36,121	529	46	–	–	36,696
Trading assets	87,452	188,122	8,754	(128,607)	1,053	156,774
of which debt securities	29,827	40,707	2,292	–	–	72,826
of which foreign governments	29,561	4,256	270	–	–	34,087
of which corporates	179	10,292	1,412	–	–	11,883
of which RMBS	0	21,399	320	–	–	21,719
of which CMBS	0	2,501	16	–	–	2,517
of which CDO	0	2,255	126	–	–	2,381
of which equity securities	51,125	3,481	163	–	1,053	55,822
of which derivatives	3,577	141,641	3,289	(128,607)	–	19,900
of which interest rate products	1,219	84,932	801	–	–	–
of which foreign exchange products	19	30,302	188	–	–	–
of which equity/index-related products	2,339	18,544	833	–	–	–
of which credit derivatives	0	7,107	634	–	–	–
Other trading assets	2,923	2,293	3,010	–	–	8,226
Investment securities	250	1,897	42	–	–	2,189
of which debt securities	244	1,778	42	–	–	2,064
of which foreign governments	98	1,138	0	–	–	1,236
of which corporates	0	238	0	–	–	238
of which RMBS	0	167	40	–	–	207
of which CMBS	0	171	2	–	–	173
of which equity securities	6	119	0	–	–	125
Other investments	25	16	1,601	–	1,855	3,497
of which private equity	0	0	29	–	343	372
of which equity funds	0	0	22	–	133	155
of which hedge funds	0	0	0	–	391	391
of which debt funds	0	0	0	–	239	239
of which other equity investments	25	9	271	–	1,121	1,426
of which private	18	9	271	–	1,121	1,419
of which life finance instruments	0	7	1,301	–	–	1,308
Loans	0	10,777	4,530	–	–	15,307
of which commercial and industrial loans	0	3,437	2,207	–	–	5,644
of which financial institutions	0	4,890	1,480	–	–	6,370
Other intangible assets (mortgage servicing rights)	0	0	158	–	–	158
Other assets	101	7,570	1,511	(164)	–	9,018
of which loans held-for-sale	0	5,800	1,350	–	–	7,150
Total assets at fair value	**124,525**	**287,423**	**16,642**	**(128,771)**	**2,908**	**302,727**

1 Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.
2 In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis (continued)

end of 2017	Level 1	Level 2	Level 3	Netting impact [1]	Liabilities measured at net asset value per share [2]	Total
Liabilities (CHF million)						
Due to banks	0	197	0	–	–	197
Customer deposits	0	3,056	455	–	–	3,511
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	0	15,262	0	–	–	15,262
Obligation to return securities received as collateral	36,697	1,331	46	–	–	38,074
of which debt securities	576	802	0	–	–	1,378
of which corporates	0	726	0	–	–	726
of which equity securities	36,121	529	46	–	–	36,696
Trading liabilities	23,121	149,951	3,226	(137,175)	9	39,132
of which debt securities	5,160	4,139	2	–	–	9,301
of which foreign governments	5,108	746	0	–	–	5,854
of which corporates	12	3,334	2	–	–	3,348
of which equity securities	14,230	883	55	–	9	15,177
of which derivatives	3,731	144,929	3,169	(137,175)	–	14,654
of which interest rate products	1,254	80,290	317	–	–	–
of which foreign exchange products	8	35,707	100	–	–	–
of which equity/index-related products	2,468	20,017	1,301	–	–	–
of which credit derivatives	0	7,982	898	–	–	–
Short-term borrowings	0	10,174	845	–	–	11,019
Long-term debt	0	50,121	12,501	–	–	62,622
of which treasury debt over two years	0	936	0	–	–	936
of which structured notes over one year and up to two years	0	6,216	149	–	–	6,365
of which structured notes over two years	0	32,782	12,259	–	–	45,041
of which other debt instruments over two years	0	2,221	61	–	–	2,282
of which other subordinated bonds	0	4,557	0	–	–	4,557
of which non-recourse liabilities	0	833	30	–	–	863
Other liabilities	0	7,356	1,467	(233)	–	8,590
of which failed sales	0	439	223	–	–	662
Total liabilities at fair value	**59,818**	**237,448**	**18,540**	**(137,408)**	**9**	**178,407**

1 Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.
2 In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis for level 3

2018	Balance at beginning of period	Transfers in	Transfers out	Purchases	Sales	Issuances
Assets (CHF million)						
Securities received as collateral	46	0	(15)	102	(103)	0
Trading assets	8,754	1,563	(1,602)	40,057	(40,138)	1,394
of which debt securities	2,292	802	(904)	3,301	(3,261)	0
of which foreign governments	270	21	(12)	45	(67)	0
of which corporates	1,412	491	(593)	2,582	(2,583)	0
of which RMBS	320	211	(225)	370	(333)	0
of which equity securities	163	132	(95)	51	(185)	0
of which derivatives	3,289	510	(525)	0	0	1,394
of which interest rate products	801	18	(66)	0	0	100
of which foreign exchange derivatives	188	3	(2)	0	0	14
of which equity/index-related products	833	329	(317)	0	0	447
of which credit derivatives	634	160	(141)	0	0	505
of which other derivatives	833	0	1	0	0	328
of which other trading assets	3,010	119	(78)	36,705	(36,692)	0
Investment securities	42	8	(121)	281	(28)	0
Other investments	1,601	79	(102)	228	(405)	0
of which life finance instruments	1,301	0	0	151	(299)	0
Loans	4,530	934	(393)	163	(491)	1,563
of which real estate	171	196	(81)	0	0	307
of which commercial and industrial loans	2,207	348	(29)	1	(226)	783
of which financial institutions	1,480	335	(53)	150	(133)	332
Other intangible assets (mortgage servicing rights)	158	0	0	1	0	0
Other assets	1,511	288	(191)	1,610	(1,357)	300
of which loans held-for-sale	1,350	243	(166)	1,447	(1,310)	300
Total assets at fair value	**16,642**	**2,872**	**(2,424)**	**42,442**	**(42,522)**	**3,257**
Liabilities (CHF million)						
Customer deposits	455	0	0	0	0	0
Obligation to return securities received as collateral	46	0	(15)	102	(103)	0
Trading liabilities	3,226	768	(641)	127	(107)	2,573
of which debt securities	2	30	(24)	39	(23)	0
of which equity securities	55	19	(5)	87	(80)	0
of which derivatives	3,169	719	(612)	1	(4)	2,573
of which interest rate derivatives	317	25	(11)	0	0	156
of which foreign exchange derivatives	100	19	(1)	0	0	55
of which equity/index-related derivatives	1,301	429	(364)	0	0	1,306
of which credit derivatives	898	247	(235)	0	0	806
Short-term borrowings	845	335	(242)	0	0	1,090
Long-term debt	12,501	2,873	(3,108)	0	0	5,761
of which structured notes over one year and up to two years	149	452	(296)	0	0	745
of which structured notes over two years	12,259	2,368	(2,800)	0	0	4,761
Other liabilities	1,467	117	(29)	45	(128)	20
Total liabilities at fair value	**18,540**	**4,093**	**(4,035)**	**274**	**(338)**	**9,444**
Net assets/(liabilities) at fair value	**(1,898)**	**(1,221)**	**1,611**	**42,168**	**(42,184)**	**(6,187)**

	Trading revenues		Other revenues		Accumulated other comprehensive income			
Settlements	On transfers in / out	On all other	On transfers in / out	On all other	On transfers in / out	On all other	Foreign currency translation impact	**Balance at end of period**
0	0	0	0	0	0	0	0	30
(1,477)	(21)	303	0	0	0	0	(19)	8,814
0	25	(150)	0	(3)	0	0	(26)	2,076
0	0	4	0	0	0	0	(29)	232
0	31	(72)	0	(4)	0	0	(4)	1,260
0	(3)	(74)	0	0	0	0	3	269
0	8	55	0	3	0	0	0	132
(1,434)	(56)	144	0	0	0	0	(24)	3,298
(116)	17	(237)	0	0	0	0	(10)	507
(24)	(2)	79	0	0	0	0	2	258
(436)	(77)	300	0	0	0	0	(25)	1,054
(438)	5	(59)	0	0	0	0	7	673
(420)	1	61	0	0	0	0	2	806
(43)	2	254	0	0	0	0	31	3,308
(205)	0	185	0	0	0	0	4	166
0	0	(93)	0	5	0	0	(4)	1,309
0	0	(96)	0	0	0	0	10	1,067
(1,866)	7	(134)	0	(13)	0	0	24	4,324
(64)	2	(8)	0	(8)	0	0	0	515
(1,057)	0	(83)	0	(5)	0	0	10	1,949
(746)	10	8	0	0	0	0	8	1,391
0	0	0	0	1	0	0	3	163
(540)	22	(32)	0	(1)	0	0	(67)	1,543
(539)	21	(44)	0	0	0	0	(67)	1,235
(4,088)	**8**	**229**	**0**	**(8)**	**0**	**0**	**(59)**	**16,349**
0	0	32	0	0	0	(21)	(13)	453
0	0	0	0	0	0	0	0	30
(1,527)	(7)	(839)	0	(3)	0	0	19	3,589
0	0	1	0	0	0	0	0	25
0	(3)	(33)	0	(3)	0	0	0	37
(1,527)	(4)	(807)	0	0	0	0	19	3,527
(145)	16	(171)	0	0	0	0	2	189
(29)	0	15	0	0	0	0	1	160
(548)	(36)	(592)	0	0	0	0	4	1,500
(572)	16	(30)	0	0	0	0	10	1,140
(1,133)	3	(117)	0	(4)	0	0	7	784
(3,656)	(25)	(1,381)	0	0	(2)	(417)	125	12,671
(501)	(10)	(14)	0	0	0	0	3	528
(3,115)	(17)	(1,355)	0	0	(2)	(417)	118	11,800
(417)	(7)	94	0	159	0	0	6	1,327
(6,733)	**(36)**	**(2,211)**	**0**	**152**	**(2)**	**(438)**	**144**	**18,854**
2,645	**44**	**2,440**	**0**	**(160)**	**2**	**438**	**(203)**	**(2,505)**

Assets and liabilities measured at fair value on a recurring basis for level 3 (continued)

2017	Balance at beginning of period	Transfers in	Transfers out	Purchases	Sales	Issuances
Assets (CHF million)						
Interest-bearing deposits with banks	1	40	0	0	(41)	0
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	174	0	0	0	0	26
Securities received as collateral	70	3	(1)	65	(86)	0
Trading assets	12,765	1,159	(2,046)	15,810	(18,032)	1,317
of which debt securities	3,977	608	(1,074)	2,747	(3,705)	0
of which corporates	1,674	276	(654)	2,203	(2,005)	0
of which RMBS	605	280	(229)	85	(305)	0
of which CMBS	65	6	(17)	2	(13)	0
of which CDO	1,165	39	(157)	174	(1,047)	0
of which equity securities	240	49	(35)	146	(260)	0
of which derivatives	4,305	416	(839)	0	0	1,317
of which interest rate products	748	56	(53)	0	0	118
of which equity/index-related products	914	142	(98)	0	0	443
of which credit derivatives	688	216	(252)	0	0	381
of which other trading assets	4,243	86	(98)	12,917	(14,067)	0
Investment securities	72	0	(17)	100	(113)	0
Other investments	1,906	23	(22)	324	(562)	0
of which equity	318	23	(22)	139	(144)	0
of which life finance instruments	1,588	0	0	185	(418)	0
Loans	6,585	1,130	(947)	106	(580)	1,151
of which commercial and industrial loans	3,816	448	(482)	71	(395)	590
of which financial institutions	1,829	352	(126)	33	(176)	444
Other intangible assets (mortgage servicing rights)	138	0	0	23	(1)	0
Other assets	1,679	347	(132)	759	(1,056)	1,054
of which loans held-for-sale	1,316	286	(113)	667	(904)	1,053
Total assets at fair value	**23,390**	**2,702**	**(3,165)**	**17,187**	**(20,471)**	**3,548**
Liabilities (CHF million)						
Customer deposits	410	0	0	0	0	35
Obligation to return securities received as collateral	70	3	(1)	65	(86)	0
Trading liabilities	3,737	566	(1,049)	113	(134)	1,193
of which interest rate derivatives	538	57	(36)	0	0	45
of which foreign exchange derivatives	150	11	(1)	0	0	9
of which equity/index-related derivatives	1,181	54	(188)	0	0	543
of which credit derivatives	851	377	(392)	0	0	350
Short-term borrowings	516	95	(172)	0	0	865
Long-term debt	13,415	1,172	(3,004)	0	0	4,540
of which structured notes over two years	12,434	995	(2,886)	0	0	3,913
Other liabilities	1,679	150	(102)	211	(304)	7
of which failed sales	219	80	(70)	189	(218)	0
Total liabilities at fair value	**19,827**	**1,986**	**(4,328)**	**389**	**(524)**	**6,640**
Net assets/(liabilities) at fair value	**3,563**	**716**	**1,163**	**16,798**	**(19,947)**	**(3,092)**

	Trading revenues		Other revenues		Accumulated other comprehensive income			
Settlements	On transfers in / out	On all other	On transfers in / out	On all other	On transfers in / out	On all other	Foreign currency translation impact	**Balance at end of period**
0	0	0	0	0	0	0	0	0
(193)	0	0	0	0	0	0	(7)	0
0	0	0	0	0	0	0	(5)	46
(2,068)	121	252	6	1	0	0	(531)	8,754
0	(4)	(80)	6	1	0	0	(184)	2,292
0	(4)	14	6	0	0	0	(98)	1,412
0	3	(95)	0	0	0	0	(24)	320
0	(3)	(21)	0	0	0	0	(3)	16
0	0	(16)	0	0	0	0	(32)	126
0	0	33	0	0	0	0	(10)	163
(1,817)	123	(63)	0	0	0	0	(153)	3,289
(183)	6	104	0	0	0	0	5	801
(597)	14	58	0	0	0	0	(43)	833
(297)	38	(110)	0	0	0	0	(30)	634
(251)	2	362	0	0	0	0	(184)	3,010
(90)	(1)	95	0	0	0	0	(4)	42
0	0	9	0	9	0	0	(86)	1,601
0	0	(7)	0	9	0	0	(16)	300
0	0	16	0	0	0	0	(70)	1,301
(2,743)	15	85	0	0	0	0	(272)	4,530
(1,705)	(2)	21	0	0	0	0	(155)	2,207
(821)	28	(6)	0	0	0	0	(77)	1,480
0	0	0	0	4	0	0	(6)	158
(885)	(1)	(172)	0	(4)	0	0	(78)	1,511
(885)	(2)	0	0	(4)	0	0	(64)	1,350
(5,979)	**134**	**269**	**6**	**10**	**0**	**0**	**(989)**	**16,642**
(3)	0	(61)	0	0	0	42	32	455
0	0	0	0	0	0	0	(5)	46
(1,625)	140	461	0	(9)	0	0	(167)	3,226
(258)	6	(14)	0	0	0	0	(21)	317
(12)	0	(52)	0	0	0	0	(5)	100
(692)	17	441	0	0	0	0	(55)	1,301
(376)	61	66	0	0	0	0	(39)	898
(472)	(2)	19	4	10	0	6	(24)	845
(4,479)	(12)	1,400	0	0	88	21	(640)	12,501
(3,079)	(14)	1,390	0	0	87	17	(598)	12,259
(398)	(25)	(8)	0	327	0	0	(70)	1,467
0	(7)	40	0	0	0	0	(10)	223
(6,977)	**101**	**1,811**	**4**	**328**	**88**	**69**	**(874)**	**18,540**
998	**33**	**(1,542)**	**2**	**(318)**	**(88)**	**(69)**	**(115)**	**(1,898)**

Gains and losses on assets and liabilities measured at fair value on a recurring basis (level 3)

in	Trading revenues	Other revenues	**Total revenues**	Trading revenues	Other revenues	**Total revenues**
			2018			2017
Gains and losses on assets and liabilities (CHF million)						
Net realized/unrealized gains/(losses) included in net revenues	2,484	(160)	**2,324** [1]	(1,509)	(316)	**(1,825)** [1]
Whereof:						
Unrealized gains/(losses) relating to assets and liabilities still held as of the reporting date	(35)	(6)	**(41)**	(2,088)	20	**(2,068)**

1 Excludes net realized/unrealized gains/(losses) attributable to foreign currency translation impact.

Quantitative information about level 3 assets at fair value

end of 2018	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average [1]
CHF million, except where indicated						
Securities received as collateral	30	–	–	–	–	–
Trading assets	8,814					
of which debt securities	2,076					
of which foreign governments	232	Discounted cash flow	Credit spread, in bp	140	140	140
of which corporates	1,260					
of which	441	Market comparable	Price, in %	0	118	94
of which	621	Option model	Correlation, in %	(60)	98	68
			Volatility, in %	0	178	30
of which RMBS	269	Discounted cash flow	Default rate, in %	0	11	3
			Discount rate, in %	1	26	7
			Loss severity, in %	0	100	63
			Prepayment rate, in %	1	22	8
of which equity securities	132					
of which	76	Market comparable	EBITDA multiple	2	9	6
			Price, in %	100	100	100
of which	49	Vendor price	Price, in actuals	0	355	1
of which derivatives	3,298					
of which interest rate products	507	Option model	Correlation, in %	0	100	69
			Prepayment rate, in %	1	26	9
			Volatility skew, in %	(4)	0	(2)
of which foreign exchange products	258					
of which	28	Discounted cash flow	Contingent probability, in %	95	95	95
of which	218	Option model	Correlation, in %	(23)	70	24
			Prepayment rate, in %	21	26	23
			Volatility, in %	80	90	85
of which equity/index-related products	1,054	Option model	Buyback probability, in %	50	100	74
			Correlation, in %	(40)	98	80
			Gap risk, in % [2]	0	4	1
			Volatility, in %	2	178	34
of which credit derivatives	673	Discounted cash flow	Correlation, in %	97	97	97
			Credit spread, in bp	3	2,147	269
			Default rate, in %	1	20	4
			Discount rate, in %	3	28	15
			Loss severity, in %	16	85	56
			Prepayment rate, in %	0	12	6
			Recovery rate, in %	0	68	8
of which other derivatives	806	Discounted cash flow	Market implied life expectancy, in years	2	16	5
			Mortality rate, in %	87	106	101
of which other trading assets	3,308					
of which	870	Discounted cash flow	Market implied life expectancy, in years	3	17	7
of which	2,119	Market comparable	Price, in %	0	110	30
of which	249	Option model	Mortality rate, in %	0	70	6

1 Cash instruments are generally presented on a weighted average basis, while certain derivative instruments either contain a combination of weighted averages and arithmetic means of the related inputs or are presented on an arithmetic mean basis.
2 Risk of unexpected large declines in the underlying values occurring between collateral settlement dates.

Quantitative information about level 3 assets at fair value (continued)

end of 2018	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average [1]
CHF million, except where indicated						
Investment securities	166	–	–	–	–	–
Other investments	1,309					
of which life finance instruments	1,067	Discounted cash flow	Market implied life expectancy, in years	2	17	6
Loans	4,324					
of which real estate	515	Discounted cash flow	Credit spread, in bp	200	1,522	612
			Recovery rate, in %	25	40	39
of which commercial and industrial loans	1,949					
of which	1,531	Discounted cash flow	Credit spread, in bp	159	1,184	582
of which	306	Market comparable	Price, in %	0	99	65
of which financial institutions	1,391					
of which	1,157	Discounted cash flow	Credit spread, in bp	88	1,071	596
of which	73	Market comparable	Price, in %	1	100	74
Other intangible assets (mortgage servicing rights)	163	–	–	–	–	–
Other assets	1,543					
of which loans held-for-sale	1,235					
of which	422	Discounted cash flow	Credit spread, in bp	105	2,730	394
			Recovery rate, in %	25	87	56
of which	739	Market comparable	Price, in %	0	130	82
Total level 3 assets at fair value	**16,349**					

1 Cash instruments are generally presented on a weighted average basis, while certain derivative instruments either contain a combination of weighted averages and arithmetic means of the related inputs or are presented on an arithmetic mean basis.

Quantitative information about level 3 assets at fair value (continued)

end of 2017	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average [1]
CHF million, except where indicated						
Securities received as collateral	46	–	–	–	–	–
Trading assets	8,754					
of which debt securities	2,292					
of which corporates	1,412					
of which	387	Option model	Correlation, in %	(60)	98	55
of which	545	Market comparable	Price, in %	0	139	84
of which	444	Discounted cash flow	Credit spread, in bp	37	952	230
of which RMBS	320	Discounted cash flow	Discount rate, in %	1	24	11
			Prepayment rate, in %	1	36	10
			Default rate, in %	0	12	4
			Loss severity, in %	0	100	57
of which CMBS	16	Discounted cash flow	Capitalization rate, in %	14	14	14
			Discount rate, in %	8	16	14
			Prepayment rate, in %	0	5	4
of which CDO	126	Discounted cash flow	Discount rate, in %	5	13	8
			Prepayment rate, in %	5	20	13
			Credit spread, in bp	464	669	553
			Default rate, in %	2	5	3
			Loss severity, in %	0	80	34
of which equity securities	163					
of which	67	Vendor price	Price, in actuals	0	2,080	10
of which	81	Market comparable	EBITDA multiple	2	9	7
			Price, in %	18	100	67
of which derivatives	3,289					
of which interest rate products	801	Option model	Correlation, in %	20	100	72
			Prepayment rate, in %	6	34	17
			Volatility skew, in %	(4)	1	(1)
of which equity/index-related products	833	Option model	Correlation, in %	(60)	98	65
			Volatility, in %	0	105	64
			Buyback probability, in %	50	100	90
			Gap risk, in % [2]	0	2	1
of which credit derivatives	634	Discounted cash flow	Credit spread, in bp	1	956	217
			Recovery rate, in %	0	45	20
			Discount rate, in %	3	50	16
			Default rate, in %	1	20	5
			Loss severity, in %	1	100	64
			Correlation, in %	97	97	97
			Prepayment rate, in %	0	14	6
of which other trading assets	3,010					
of which	1,605	Market comparable	Price, in %	0	110	23
of which	1,095	Discounted cash flow	Market implied life expectancy, in years	3	18	8

1 Cash instruments are generally presented on a weighted average basis, while certain derivative instruments either contain a combination of weighted averages and arithmetic means of the related inputs or are presented on an arithmetic mean basis.
2 Risk of unexpected large declines in the underlying values occurring between collateral settlement dates.

Quantitative information about level 3 assets at fair value (continued)

end of 2017	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average [1]
CHF million, except where indicated						
Investment securities	42	–	–	–	–	–
Other investments	1,601					
of which private equity	29	–	–	–	–	–
of which other equity investments	271	–	–	–	–	–
of which life finance instruments	1,301	Discounted cash flow	Market implied life expectancy, in years	2	18	6
Loans	4,530					
of which commercial and industrial loans	2,207					
of which	1,924	Discounted cash flow	Credit spread, in bp	89	1,116	420
of which	250	Market comparable	Price, in %	0	99	56
of which financial institutions	1,480					
of which	1,426	Discounted cash flow	Credit spread, in bp	43	1,430	371
Other intangible assets (mortgage servicing rights)	158	–	–	–	–	–
Other assets	1,511					
of which loans held-for-sale	1,350					
of which	849	Discounted cash flow	Credit spread, in bp	117	973	292
			Recovery rate, in %	18	87	73
of which	280	Market comparable	Price, in %	0	102	88
Total level 3 assets at fair value	**16,642**					

1 Cash instruments are generally presented on a weighted average basis, while certain derivative instruments either contain a combination of weighted averages and arithmetic means of the related inputs or are presented on an arithmetic mean basis.

Quantitative information about level 3 liabilities at fair value

end of 2018	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average [1]
CHF million, except where indicated						
Customer deposits	453	–	–	–	–	–
Obligation to return securities received as collateral	30	–	–	–	–	–
Trading liabilities	3,589					
of which debt securities	25	–	–	–	–	–
of which equity securities	37	Vendor price	Price, in actuals	0	3	0
of which derivatives	3,527					
of which interest rate derivatives	189	Option model	Basis spread, in bp	(20)	147	48
			Correlation, in %	1	100	41
			Prepayment rate, in %	1	26	7
of which foreign exchange derivatives	160					
of which	62	Discounted cash flow	Contingent probability, in %	95	95	95
			Credit spread, in bp	146	535	379
of which	37	Market comparable	Price, in %	100	100	100
of which	57	Option model	Correlation, in %	35	70	53
			Prepayment rate, in %	21	26	23
of which equity/index-related derivatives	1,500	Option model	Buyback probability, in % [2]	50	100	74
			Correlation, in %	(60)	98	74
			Volatility, in %	0	178	30
of which credit derivatives	1,140					
of which	566	Discounted cash flow	Correlation, in %	38	82	47
			Credit spread, in bp	3	2,937	262
			Default rate, in %	1	20	4
			Discount rate, in %	3	28	14
			Loss severity, in %	16	95	56
			Prepayment rate, in %	0	12	6
			Recovery rate, in %	0	80	14
of which	508	Market comparable	Price, in %	75	104	89
of which	20	Option model	Correlation, in %	50	50	50
			Credit spread, in bp	35	1,156	320
Short-term borrowings	784					
of which	61	Discounted cash flow	Credit spread, in bp	1,018	1,089	1,067
			Recovery rate, in %	40	40	40
of which	644	Option model	Buyback probability, in %	50	100	74
			Correlation, in %	(40)	98	64
			Fund gap risk, in % [3]	0	4	1
			Volatility, in %	2	178	32
Long-term debt	12,671					
of which structured notes over one year and up to two years	528					
of which	3	Discounted cash flow	Credit spread, in bp	112	112	112
of which	427	Option model	Correlation, in %	(40)	98	71
			Volatility, in %	2	178	31
of which structured notes over two years	11,800					
of which	1,570	Discounted cash flow	Credit spread, in bp	(11)	1,089	136
of which	43	Market comparable	Price, in %	0	46	30
of which	9,533	Option model	Buyback probability, in % [2]	50	100	74
			Correlation, in %	(60)	98	65
			Gap risk, in % [3]	0	4	1
			Mean reversion, in % [4]	(55)	(1)	(7)
			Volatility, in %	0	178	27
Other liabilities	1,327	–	–	–	–	–
Total level 3 liabilities at fair value	**18,854**					

1 Cash instruments are generally presented on a weighted average basis, while certain derivative instruments either contain a combination of weighted averages and arithmetic means of the related inputs or are presented on an arithmetic mean basis.
2 Estimate of the probability of structured notes being put back to the Bank at the option of the investor over the remaining life of the financial instruments.
3 Risk of unexpected large declines in the underlying values occurring between collateral settlement dates.
4 Management's best estimate of the speed at which interest rates will revert to the long-term average.

Quantitative information about level 3 liabilities at fair value (continued)

end of 2017	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average [1]
CHF million, except where indicated						
Customer deposits	455	–	–	–	–	–
Obligation to return securities received as collateral	46	–	–	–	–	–
Trading liabilities	3,226					
of which interest rate derivatives	317					
of which	205	Option model	Basis spread, in bp	(25)	52	19
			Correlation, in %	20	100	60
			Prepayment rate, in %	6	34	9
of which	81	Market comparable	Price, in %	1	102	44
of which foreign exchange derivatives	100					
of which	64	Option model	Correlation, in %	(10)	70	51
			Prepayment rate, in %	27	34	30
of which	7	Discounted cash flow	Contingent probability, in %	95	95	95
of which equity/index-related derivatives	1,301					
of which	947	Option model	Correlation, in %	(60)	98	55
			Volatility, in %	0	105	25
			Buyback probability, in % [2]	50	100	90
of which	62	Vendor price	Price, in actuals	0	53	18
of which credit derivatives	898	Discounted cash flow	Credit spread, in bp	2	973	172
			Discount rate, in %	3	50	16
			Default rate, in %	1	20	5
			Recovery rate, in %	10	60	38
			Loss severity, in %	25	100	67
			Correlation, in %	38	85	54
			Prepayment rate, in %	0	20	7
			Term TRS/repo spread, in bp	176	176	176
Short-term borrowings	845					
of which	288	Option model	Correlation, in %	(40)	98	60
			Volatility, in %	4	105	26
of which	527	Discounted cash flow	Credit spread, in bp	2	278	175
			Recovery rate, in %	25	40	29
of which	24	Market comparable	Price, in %	11	47	47
Long-term debt	12,501					
of which structured notes over two years	12,259					
of which	9,739	Option model	Correlation, in %	(60)	99	55
			Volatility, in %	0	105	21
			Buyback probability, in % [2]	50	100	90
			Gap risk, in % [3]	0	2	1
			Mean reversion, in % [4]	(14)	(1)	(6)
of which	1,571	Discounted cash flow	Credit spread, in bp	2	729	105
Other liabilities	1,467					
of which failed sales	223					
of which	122	Market comparable	Price, in %	0	100	51
of which	25	Discounted cash flow	Credit spread, in bp	1,430	1,430	1,430
Total level 3 liabilities at fair value	**18,540**					

1 Cash instruments are generally presented on a weighted average basis, while certain derivative instruments either contain a combination of weighted averages and arithmetic means of the related inputs or are presented on an arithmetic mean basis.
2 Estimate of the probability of structured notes being put back to the Bank at the option of the investor over the remaining life of the financial instruments.
3 Risk of unexpected large declines in the underlying values occurring between collateral settlement dates.
4 Management's best estimate of the speed at which interest rates will revert to the long-term average.

Fair value, unfunded commitments and term of redemption conditions of investment funds measured at NAV per share

end of	Non-redeemable	Redeemable	Total fair value	Unfunded commit-ments	Non-redeemable	Redeemable	Total fair value	Unfunded commit-ments
	2018				2017			
Fair value of investment funds and unfunded commitments (CHF million)								
Debt funds	12	0	12	0	0	0	0	0
Equity funds	103	1,011 [1]	1,114	53	61	992 [2]	1,053	0
Equity funds sold short	(8)	(2)	(10)	0	0	(9)	(9)	0
Funds held in trading assets and trading liabilities	107	1,009	1,116	53	61	983	1,044	0
Debt funds	1	0	1	0	1	0	1	0
Equity funds	126	0	126	42	133	0	133	63
Real estate funds	214	0	214	34	178	0	178	44
Other private equity funds	24	5	29	29	31	0	31	16
Private equity funds	365	5	370	105	343	0	343	123
Debt funds	68	34	102	0	164	75	239	0
Equity funds	14	14	28	0	2	53	55	0
Other hedge funds	2	24	26	0	2	95	97	9
Hedge funds	84	72 [3]	156	0	168	223 [4]	391	9
Equity method investment funds	52	522	574	21	71	1,050	1,121	5
Funds held in other investments	501	599	1,100	126	582	1,273	1,855	137
Fair value of investment funds and unfunded commitments	**608 [5]**	**1,608**	**2,216**	**179 [7]**	**643 [5]**	**2,256 [6]**	**2,899**	**137 [7]**

1 46% of the redeemable fair value amount of equity funds is redeemable on demand with a notice period primarily of less than 30 days, 40% is redeemable on a monthly basis with a notice period primarily of more than 30 days, 13% is redeemable on a quarterly basis with a notice period primarily of more than 45 days and 1% is redeemable on an annual basis with a notice period primarily of less than 30 days.
2 54% of the redeemable fair value amount of equity funds is redeemable on demand with a notice period primarily of less than 30 days, 35% is redeemable on a monthly basis with a notice period primarily of less than 30 days, 9% is redeemable on a quarterly basis with a notice period primarily of more than 45 days and 2% is redeemable on an annual basis with a notice period primarily of more than 60 days.
3 65% of the redeemable fair value amount of hedge funds is redeemable on a quarterly basis with a notice period primarily of more than 60 days and 35% is redeemable on demand with a notice period primarily of less than 30 days.
4 51% of the redeemable fair value amount of hedge funds is redeemable on a quarterly basis with a notice period primarily of more than 45 days, 43% is redeemable on a monthly basis with a notice period primarily of less than 30 days and 6% is redeemable on demand with a notice period primarily of less than 30 days.
5 Includes CHF 102 million and CHF 229 million attributable to noncontrolling interests as of the end of 2018 and 2017, respectively.
6 Includes CHF 167 million attributable to noncontrolling interests as of the end of 2017.
7 Includes CHF 23 million and CHF 53 million attributable to noncontrolling interests as of the end of 2018 and 2017, respectively.

Assets measured at fair value on a nonrecurring basis

end of	**2018**	2017
Assets held-for-sale recorded at fair value on a nonrecurring basis (CHF billion)		
Assets held-for-sale recorded at fair value on a nonrecurring basis	0.0	0.1
of which level 2	0.0	0.1

Difference between the aggregate fair value and the unpaid principal balances of fair value option-elected financial instruments

	2018			2017		
end of	Aggregate fair value	Aggregate unpaid principal	Difference	Aggregate fair value	Aggregate unpaid principal	Difference
Financial instruments (CHF million)						
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	81,818	81,637	181	77,498	76,643	855
Loans	14,873	15,441	(568)	15,307	15,372	(65)
Other assets [1]	6,706	9,240	(2,534)	8,468	10,910	(2,442)
Due to banks and customer deposits	(859)	(778)	(81)	(907)	(861)	(46)
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(14,828)	(14,827)	(1)	(15,262)	(15,180)	(82)
Short-term borrowings	(8,068)	(8,647)	579	(11,019)	(11,104)	85
Long-term debt	(63,027)	(69,914)	6,887	(62,622)	(62,813)	191
Other liabilities	(2,068)	(3,125)	1,057	(661)	(1,716)	1,055
Non-performing and non-interest-earning loans [2]	640	3,493	(2,853)	708	3,375	(2,667)

1 Primarily loans held-for-sale.
2 Included in loans or other assets.

Gains and losses on financial instruments

	2018	2017	2016
in	Net gains/ (losses)	Net gains/ (losses)	Net gains/ (losses)
Financial instruments (CHF million)			
Interest-bearing deposits with banks	2 [1]	13 [1]	4 [1]
of which related to credit risk	(10)	0	1
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	2,451 [1]	2,206 [1,4]	1,440 [1]
Other investments	241 [3]	215 [2]	214 [2]
of which related to credit risk	(1)	(4)	(3)
Loans	717 [1]	1,542 [1]	1,643 [1]
of which related to credit risk	(296)	7	(16)
Other assets	770 [1]	480 [1]	(507) [2]
of which related to credit risk	61	96	(200)
Due to banks and customer deposits	(39) [2]	1 [2]	(12) [1]
of which related to credit risk	(37)	5	(22)
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(890) [1]	(418) [1,4]	(112) [1]
Short-term borrowings	2,807 [2]	(512) [2]	323 [2]
of which related to credit risk	(5)	(23)	(4)
Long-term debt	4,375 [2]	(6,615) [2]	(1,136) [2]
of which related to credit risk	7	(32)	22
Other liabilities	72 [3]	181 [3]	443 [2]
of which related to credit risk	4	88	312

1 Primarily recognized in net interest income.
2 Primarily recognized in trading revenues.
3 Primarily recognized in other revenues.
4 Prior period has been corrected.

Gains/(losses) attributable to changes in instrument-specific credit risk on fair value option elected liabilities

in	Gains/(losses) recorded into AOCI [1]			Gains/(losses) recorded in AOCI transferred to net income [1]	
	2018	Cumulative	2017	2018	2017
Financial instruments (CHF million)					
Deposits	36	(21)	(15)	(6)	0
Short-term borrowings	6	(53)	(63)	2	0
Long-term debt	1,520	(876)	(1,768)	53	32
of which treasury debt over two years	676	132	(513)	0	0
of which structured notes over two years	774	(1,060)	(1,246)	53	27
Total	**1,562**	**(950)**	**(1,846)**	**49**	**32**

1 Amounts are reflected gross of tax.

Carrying value and fair value of financial instruments not carried at fair value

end of	Carrying value				Fair value
		Level 1	Level 2	Level 3	Total
2018 (CHF million)					
Financial assets					
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	35,277	0	35,243	35	35,278
Loans	274,440	0	275,105	7,047	282,152
Other financial assets [1]	117,002	99,238	17,139	796	117,173
Financial liabilities					
Due to banks and deposits	376,741	197,320	179,448	0	376,768
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	9,795	0	9,795	0	9,795
Short-term borrowings	14,351	0	14,352	0	14,352
Long-term debt	90,406	0	89,707	854	90,561
Other financial liabilities [2]	16,803	0	16,547	184	16,731
2017 (CHF million)					
Financial assets					
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	37,848	0	37,848	0	37,848
Loans	264,181	0	268,380	3,212	271,592
Other financial assets [1,3]	170,687	109,414	60,518	1,108	171,040
Financial liabilities					
Due to banks and deposits	374,006	202,164	171,831	0	373,995
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	11,233	0	11,233	0	11,233
Short-term borrowings	15,359	0	15,359	0	15,359
Long-term debt	109,420	0	112,564	235	112,799
Other financial liabilities [2,3]	61,701	0	61,543	146	61,689

1 Primarily includes cash and due from banks, interest-bearing deposits with banks, loans held-for-sale, cash collateral on derivative instruments, interest and fee receivables and non-marketable equity securities.
2 Primarily includes cash collateral on derivative instruments and interest and fee payables.
3 2017 balances included brokerage receivables and payables, which, effective January 1, 2018, were no longer included due to the adoption of ASU 2016-01.

35 Assets pledged and collateral

Assets pledged

The Bank pledges assets mainly for repurchase agreements and other securities financing. Certain pledged assets may be encumbered, meaning they have the right to be sold or repledged. The encumbered assets are parenthetically disclosed on the consolidated balance sheet.

Assets pledged

end of	**2018**	2017
CHF million		
Total assets pledged or assigned as collateral	117,895	130,038
of which encumbered	58,672	73,189

Collateral

The Bank receives cash and securities in connection with resale agreements, securities borrowing and loans, derivative transactions and margined broker loans. A significant portion of the collateral and securities received by the Bank was sold or repledged in connection with repurchase agreements, securities sold not yet purchased, securities borrowings and loans, pledges to clearing organizations, segregation requirements under securities laws and regulations, derivative transactions and bank loans.

Collateral

end of	**2018**	2017
CHF million		
Fair value of collateral received with the right to sell or repledge	406,389	433,190
of which sold or repledged	193,267	212,155

Other information

end of	**2018**	2017
CHF million		
Swiss National Bank required minimum liquidity reserves	2,042	2,043
Other cash and securities restricted under Swiss and foreign regulations for financial institutions	24,681	26,928

→ Refer to "Note 36 – Assets pledged and collateral" in VI – Consolidated financial statements – Credit Suisse Group for further information.

36 Capital adequacy

The Bank is subject to the Basel III framework, as implemented in Switzerland, as well as Swiss legislation and regulations for systemically important banks (Swiss Requirements). The Bank, which is subject to regulation by FINMA, has based its capital adequacy calculations on US GAAP financial statements, as permitted by FINMA Circular 2013/1.

→ Refer to "Note 37 – Capital adequacy" in VI – Consolidated financial statements – Credit Suisse Group for further information.

As of December 31, 2018 and 2017, the Bank's capital position exceeded its capital requirements under the regulatory provisions outlined under Swiss Requirements.

Broker-dealer operations

Certain of the Bank's broker-dealer subsidiaries are also subject to capital adequacy requirements. As of December 31, 2018 and 2017, the Bank and its subsidiaries complied with all applicable regulatory capital adequacy requirements.

Dividend restrictions

Certain of the Bank's subsidiaries are subject to legal restrictions governing the amount of dividends they can pay (for example, pursuant to corporate law as defined by the Swiss Code of Obligations).

As of December 31, 2018 and 2017, Credit Suisse AG was not subject to restrictions on its ability to pay the proposed dividends.

Swiss metrics

		Phase-in
end of	**2018**	2017
Swiss capital (CHF million)		
Swiss CET1 capital	38,810	38,288
Going concern capital	51,634	53,995
Gone concern capital	35,683	35,771
Total loss-absorbing capacity (TLAC)	87,317	89,766
Swiss risk-weighted assets and leverage exposure (CHF million)		
Swiss risk-weighted assets	286,682	273,332
Leverage exposure	885,854	921,793
Swiss capital ratios (%)		
Swiss CET1 ratio	13.5	14.0
Going concern capital ratio	18.0	19.8
Gone concern capital ratio	12.4	13.1
TLAC ratio	30.5	32.8
Swiss leverage ratios (%)		
Swiss CET1 leverage ratio	4.4	4.2
Going concern leverage ratio	5.8	5.9
Gone concern leverage ratio	4.0	3.9
TLAC leverage ratio	9.9	9.7
Swiss capital ratio requirements (%)		
Swiss CET1 ratio requirement	9.46	9.0
Going concern capital ratio requirement	12.86	12.0
Gone concern capital ratio requirement	8.9	6.2
TLAC ratio requirement	21.76	18.2
Swiss leverage ratio requirements (%)		
Swiss CET1 leverage ratio requirement	2.9	2.6
Going concern leverage ratio requirement	4.0	3.5
Gone concern leverage ratio requirement	3.0	2.0
TLAC leverage ratio requirement	7.0	5.5

37 Assets under management

The following disclosure provides information regarding client assets, assets under management and net new assets as regulated by FINMA.

→ Refer to "Note 38 – Assets under management" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Assets under management

end of	2018	2017
CHF billion		
Assets in collective investment instruments managed by Credit Suisse	178.3	177.4
Assets with discretionary mandates	256.5	267.3
Other assets under management	904.4	923.6
Assets under management (including double counting)	**1,339.2**	**1,368.3**
of which double counting	42.4	44.6

Changes in assets under management

	2018	2017
Assets under management (CHF billion)		
Balance at beginning of period [1]	**1,368.3**	**1,243.9**
Net new assets/(net asset outflows)	56.0	36.2
Market movements, interest, dividends and foreign exchange	(68.0)	87.6
of which market movements, interest and dividends [2]	(54.8)	89.8
of which foreign exchange	(13.2)	(2.2)
Other effects	(17.1)	0.6
Balance at end of period	**1,339.2**	**1,368.3**

1 Including double counting.
2 Net of commissions and other expenses and net of interest expenses charged.

38 Litigation

→ Refer to "Note 39 – Litigation" in VI – Consolidated financial statements – Credit Suisse Group for further information.

39 Significant subsidiaries and equity method investments

Significant subsidiaries

Company name	Domicile	Currency	Nominal capital in million	Equity interest in %
End of 2018				
Credit Suisse AG				
Alpine Securitization LTD	George Town, Cayman Islands	USD	0.0	100
Asset Management Finance LLC	Wilmington, United States	USD	167.8	100
Banco Credit Suisse (Brasil) S.A.	São Paulo, Brazil	BRL	53.6	100
Banco Credit Suisse (México), S.A.	Mexico City, Mexico	MXN	1,716.7	100
Banco de Investimentos Credit Suisse (Brasil) S.A.	São Paulo, Brazil	BRL	164.8	100
BANK-now AG	Horgen, Switzerland	CHF	30.0	100
Boston Re Ltd.	Hamilton, Bermuda	USD	2.0	100
Casa de Bolsa Credit Suisse (México), S.A. de C.V.	Mexico City, Mexico	MXN	274.0	100
Column Financial, Inc.	Wilmington, United States	USD	0.0	100
Credit Suisse (Australia) Limited	Sydney, Australia	AUD	34.1	100
Credit Suisse (Brasil) S.A. Corretora de Titulos e Valores Mobiliários	São Paulo, Brazil	BRL	98.4	100
Credit Suisse (Deutschland) Aktiengesellschaft	Frankfurt, Germany	EUR	130.0	100
Credit Suisse (Hong Kong) Limited	Hong Kong, China	HKD	13,758.0	100
Credit Suisse (Italy) S.p.A.	Milan, Italy	EUR	170.0	100
Credit Suisse (Luxembourg) S.A.	Luxembourg, Luxembourg	CHF	230.9	100
Credit Suisse (Qatar) LLC	Doha, Qatar	USD	29.0	100
Credit Suisse (Schweiz) AG	Zurich, Switzerland	CHF	100.0	100
Credit Suisse (Singapore) Limited	Singapore, Singapore	SGD	743.3	100
Credit Suisse (UK) Limited	London, United Kingdom	GBP	245.2	100
Credit Suisse (USA), Inc.	Wilmington, United States	USD	0.0	100
Credit Suisse Asset Management (UK) Holding Limited	London, United Kingdom	GBP	144.2	100
Credit Suisse Asset Management Immobilien Kapitalanlagegesellschaft mbH	Frankfurt, Germany	EUR	6.1	100
Credit Suisse Asset Management International Holding Ltd	Zurich, Switzerland	CHF	20.0	100
Credit Suisse Asset Management Investments Ltd	Zurich, Switzerland	CHF	0.1	100
Credit Suisse Asset Management Limited	London, United Kingdom	GBP	45.0	100
Credit Suisse Asset Management, LLC	Wilmington, United States	USD	1,086.8	100
Credit Suisse Atlas I Investments (Luxembourg) S.à.r.l.	Luxembourg, Luxembourg	USD	0.0	100
Credit Suisse Brazil (Bahamas) Limited	Nassau, Bahamas	USD	70.0	100
Credit Suisse Business Analytics (India) Private Limited	Mumbai, India	INR	40.0	100
Credit Suisse Capital LLC	Wilmington, United States	USD	937.6	100
Credit Suisse Energy LLC	Wilmington, United States	USD	0.0	100
Credit Suisse Equities (Australia) Limited	Sydney, Australia	AUD	62.5	100
Credit Suisse Finance (India) Private Limited	Mumbai, India	INR	1,050.1	100
Credit Suisse First Boston (Latam Holdings) LLC	George Town, Cayman Islands	USD	23.8	100
Credit Suisse First Boston Finance B.V.	Amsterdam, The Netherlands	EUR	0.0	100
Credit Suisse First Boston Mortgage Capital LLC	Wilmington, United States	USD	356.6	100
Credit Suisse First Boston Next Fund, Inc.	Wilmington, United States	USD	10.0	100
Credit Suisse Fund Management S.A.	Luxembourg, Luxembourg	CHF	0.3	100

Significant subsidiaries (continued)

Company name	Domicile	Currency	Nominal capital in million	Equity interest in %
Credit Suisse Fund Services (Luxembourg) S.A.	Luxembourg, Luxembourg	CHF	1.5	100
Credit Suisse Funds AG	Zurich, Switzerland	CHF	7.0	100
Credit Suisse Group Finance (U.S.) Inc.	Wilmington, United States	USD	100.0	100
Credit Suisse Hedging-Griffo Corretora de Valores S.A.	São Paulo, Brazil	BRL	29.6	100
Credit Suisse Holding Europe (Luxembourg) S.A.	Luxembourg, Luxembourg	CHF	32.6	100
Credit Suisse Holdings (Australia) Limited	Sydney, Australia	AUD	3.0	100
Credit Suisse Holdings (USA), Inc.	Wilmington, United States	USD	550.0	100
Credit Suisse InvestLab AG	Zurich, Switzerland	CHF	1.0	100
Credit Suisse Istanbul Menkul Degerler A.S.	Istanbul, Turkey	TRY	6.8	100
Credit Suisse Leasing 92A, L.P.	Wilmington, United States	USD	43.9	100
Credit Suisse Life & Pensions AG	Vaduz, Liechtenstein	CHF	15.0	100
Credit Suisse Life (Bermuda) Ltd.	Hamilton, Bermuda	USD	1.0	100
Credit Suisse Loan Funding LLC	Wilmington, United States	USD	0.0	100
Credit Suisse Management LLC	Wilmington, United States	USD	896.4	100
Credit Suisse Prime Securities Services (USA) LLC	Wilmington, United States	USD	263.3	100
Credit Suisse Private Equity, LLC	Wilmington, United States	USD	42.2	100
Credit Suisse PSL GmbH	Zurich, Switzerland	CHF	0.0	100
Credit Suisse Saudi Arabia	Riyadh, Saudi Arabia	SAR	625.0	100
Credit Suisse Securities (Canada), Inc.	Toronto, Canada	CAD	3.4	100
Credit Suisse Securities (Europe) Limited	London, United Kingdom	USD	3,859.3	100
Credit Suisse Securities (Hong Kong) Limited	Hong Kong, China	HKD	2,080.9	100
Credit Suisse Securities (India) Private Limited	Mumbai, India	INR	2,214.7	100
Credit Suisse Securities (Japan) Limited	Tokyo, Japan	JPY	78,100.0	100
Credit Suisse Securities (Johannesburg) Proprietary Limited	Johannesburg, South Africa	ZAR	0.0	100
Credit Suisse Securities (Malaysia) Sdn. Bhd.	Kuala Lumpur, Malaysia	MYR	100.0	100
Credit Suisse Securities (Moscow)	Moscow, Russia	RUB	97.1	100
Credit Suisse Securities (Singapore) Pte Limited	Singapore, Singapore	SGD	30.0	100
Credit Suisse Securities (Thailand) Limited	Bangkok, Thailand	THB	500.0	100
Credit Suisse Securities (USA) LLC	Wilmington, United States	USD	1,131.7	100
Credit Suisse Services (India) Private Limited	Pune, India	INR	0.1	100
Credit Suisse Services (USA) LLC	Wilmington, United States	USD	0.0	100
CS Non-Traditional Products Ltd.	Nassau, Bahamas	USD	0.1	100
CSAM Americas Holding Corp.	Wilmington, United States	USD	0.0	100
DLJ Merchant Banking Funding, Inc	Wilmington, United States	USD	0.0	100
DLJ Mortgage Capital, Inc.	Wilmington, United States	USD	0.0	100
Fides Treasury Services AG	Zurich, Switzerland	CHF	2.0	100
JSC "Bank Credit Suisse (Moscow)"	Moscow, Russia	USD	37.8	100
Lime Residential Ltd	Nassau, Bahamas	USD	100.0	100
Merban Equity AG	Zug, Switzerland	CHF	0.1	100
Merchant Holding, LLC	Wilmington, United States	USD	0.0	100
Neue Aargauer Bank AG	Aarau, Switzerland	CHF	134.1	100
Solar Investco II Ltd.	George Town, Cayman Islands	USD	0.0	100
SPS Holding Corporation	Wilmington, United States	USD	0.0	100
SVC – AG für KMU Risikokapital	Zurich, Switzerland	CHF	15.0	100
PT Credit Suisse Sekuritas Indonesia	Jakarta, Indonesia	IDR	235,000.0	99
Credit Suisse Hypotheken AG	Zurich, Switzerland	CHF	0.1	98
Credit Suisse International	London, United Kingdom	USD	12,366.1	98 [1]

1 Remaining 2% held directly by Credit Suisse Group AG. 98% of voting rights and 98% of equity interest held by Credit Suisse AG.

Significant equity method investments

Company name	Domicile	Equity interest in %
End of 2018		
Credit Suisse AG		
Swisscard AECS GmbH	Horgen, Switzerland	50
Credit Suisse Founder Securities Limited	Beijing, China	33
E.L. & C. Baillieu Stockbroking (Holdings) Pty Ltd	Melbourne, Australia	23
ICBC Credit Suisse Asset Management Co., Ltd.	Beijing, China	20
York Capital Management Global Advisors, LLC	New York, United States	5 [1]
Holding Verde Empreendimentos e Participações S.A.	São Paulo, Brazil	0 [1]

1 The Bank holds a significant noncontrolling interest.

40 Significant valuation and income recognition differences between US GAAP and Swiss GAAP banking law (true and fair view)

→ Refer to "Note 43 – Significant valuation and income recognition differences between US GAAP and Swiss GAAP banking law (true and fair view)" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Controls and procedures

Evaluation of disclosure controls and procedures

The Bank has evaluated the effectiveness of the design and operation of its disclosure controls and procedures as of the end of the period covered by this report under the supervision and with the participation of management, including the Bank Chief Executive Officer (CEO) and Chief Financial Officer (CFO), pursuant to Rule 13(a)-15(a) under the Securities Exchange Act of 1934 (the Exchange Act). There are inherent limitations to the effectiveness of any system of controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective controls and procedures can only provide reasonable assurance of achieving their control objectives.

The CEO and CFO concluded that, as of December 31, 2018, the design and operation of the Bank's disclosure controls and procedures were effective, in all material respects, to ensure that information required to be disclosed in reports filed and submitted under the Exchange Act is recorded, processed, summarized and reported as and when required.

Management report on internal control over financial reporting

The management of the Bank is responsible for establishing and maintaining adequate internal control over financial reporting. The Bank's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with US GAAP. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

Management has made an evaluation and assessment of the Bank's internal control over financial reporting as of December 31, 2018 using the criteria issued in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control – Integrated Framework".

Based upon its review and evaluation, management, including the Bank CEO and CFO, has concluded that the Bank's internal control over financial reporting is effective as of December 31, 2018.

The Bank's independent auditors, KPMG AG, have issued an unqualified opinion on the effectiveness of the Bank's internal control over financial reporting as of December 31, 2018, as stated in their report, which follows.

Changes in internal control over financial reporting

There were no changes in the Bank's internal control over financial reporting during the period covered by this report that have materially affected, or are reasonably likely to materially affect, the Bank's internal control over financial reporting.

KPMG

Report of the Independent Registered Public Accounting Firm

To the shareholders and Board of Directors
Credit Suisse AG, Zurich

Opinion on Internal Control Over Financial Reporting

We have audited Credit Suisse AG and subsidiaries' (the "Bank") internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Bank maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Bank as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the "consolidated financial statements"), and our report dated March 22, 2019 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Bank's Board of Directors and management are responsible for maintaining effective internal control over financial reporting and the Bank's management is responsible for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Bank's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Bank in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

KPMG AG

Nicholas Edmonds
Licensed Audit Expert
Auditor in Charge

Anthony Anzevino
Global Lead Partner

Zurich, Switzerland
March 22, 2019

KPMG AG, Badenerstrasse 172, PO Box, CH-8036 Zurich

APPENDIX 6 — LEGAL PROCEEDINGS INFORMATION EXTRACTED FROM CREDIT SUISSE ANNUAL REPORT 2018

We are a wholly owned subsidiary of Credit Suisse Group AG. We have extracted the section headed "Litigation" from pages 389 to 399 of the Credit Suisse Annual Report 2018 in this appendix 6. References to page numbers in this appendix 6 are to the pages in the Credit Suisse Annual Report 2018 and not to the pages in this document.

39 Litigation

The Group is involved in a number of judicial, regulatory and arbitration proceedings concerning matters arising in connection with the conduct of its businesses, including those disclosed below. Some of these proceedings have been brought on behalf of various classes of claimants and seek damages of material and/or indeterminate amounts.

The Group accrues loss contingency litigation provisions and takes a charge to income in connection with certain proceedings when losses, additional losses or ranges of loss are probable and reasonably estimable. The Group also accrues litigation provisions for the estimated fees and expenses of external lawyers and other service providers in relation to such proceedings, including in cases for which it has not accrued a loss contingency provision. The Group accrues these fee and expense litigation provisions and takes a charge to income in connection therewith when such fees and expenses are probable and reasonably estimable. The Group reviews its legal proceedings each quarter to determine the adequacy of its litigation provisions and may increase or release provisions based on management's judgment and the advice of counsel. The establishment of additional provisions or releases of litigation provisions may be necessary in the future as developments in such proceedings warrant.

The specific matters described below include (a) proceedings where the Group has accrued a loss contingency provision, given that it is probable that a loss may be incurred and such loss is reasonably estimable; and (b) proceedings where the Group has not accrued such a loss contingency provision for various reasons, including, but not limited to, the fact that any related losses are not reasonably estimable. The description of certain of the matters below includes a statement that the Group has established a loss contingency provision and discloses the amount of such provision; for the other matters no such statement is made.

With respect to the matters for which no such statement is made, either (a) the Group has not established a loss contingency provision, in which case the matter is treated as a contingent liability under the applicable accounting standard, or (b) the Group has established such a provision but believes that disclosure of that fact would violate confidentiality obligations to which the Group is subject or otherwise compromise attorney-client privilege, work product protection or other protections against disclosure or compromise the Group's management of the matter. The future outflow of funds in respect of any matter for which the Group has accrued loss contingency provisions 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 is reflected on the Group's balance sheet.

It is inherently difficult to determine whether a loss is probable or even reasonably possible or to estimate the amount of any loss or loss range for many of the Group's legal proceedings. Estimates, by their nature, are based on judgment and currently available information and involve a variety of factors, including, but not limited to, the type and nature of the proceeding, the progress of the matter, the advice of counsel, the Group's defenses and its experience in similar matters, as well as its assessment of matters, including settlements, involving other defendants in similar or related cases or proceedings. Factual and legal determinations, many of which are complex, must be made before a loss, additional losses or ranges of loss can be reasonably estimated for any proceeding.

Most matters pending against the Group seek damages of an indeterminate amount. While certain matters specify the damages claimed, such claimed amount may not represent the Group's reasonably possible losses. For certain of the proceedings discussed below the Group has disclosed the amount of damages claimed and certain other quantifiable information that is publicly available.

The following table presents a roll forward of the Group's aggregate litigation provisions.

Litigation provisions

	2018
CHF million	
Balance at beginning of period	**749**
Increase in litigation accruals	503
Decrease in litigation accruals	(91)
Decrease for settlements and other cash payments	(481)
Foreign exchange translation	1
Balance at end of period	**681**

The Group's aggregate litigation provisions include estimates of losses, additional losses or ranges of loss for proceedings for which such losses are probable and can be reasonably estimated. The Group does not believe that it can estimate an aggregate range of reasonably possible losses for certain of its proceedings because of their complexity, the novelty of some of the claims, the early stage of the proceedings, the limited amount of discovery that has occurred and/or other factors. The Group's estimate of the aggregate range of reasonably possible losses that are not covered by existing provisions for the proceedings discussed below for which the Group believes an estimate is possible is zero to CHF 1.4 billion.

After taking into account its litigation provisions, the Group believes, based on currently available information and advice of counsel, that the results of its legal proceedings, in the aggregate, will not have a material adverse effect on the Group's financial condition. However, in light of the inherent uncertainties of such proceedings, including those brought by regulators or other governmental authorities, the ultimate cost to the Group of resolving such proceedings may exceed current litigation provisions and any excess may be material to its operating results for any particular period, depending, in part, upon the operating results for such period.

Enron-related litigation

Credit Suisse Securities (USA) LLC (CSS LLC) and certain of its affiliates, together with Deutsche Bank Securities Inc., Deutsche Bank AG, and Merrill Lynch & Co., Inc., were named as defendants in an Enron-related action, Silvercreek Management Inc. v. Citigroup, Inc., et al., in the US District Court for the Southern District of New York (SDNY). In this action, plaintiffs asserted they relied on Enron's financial statements, and sought to hold the defendants responsible for any inaccuracies in Enron's financial statements. The plaintiffs sought to assert federal and state law claims relating to its alleged USD 280 million in losses relating to its Enron investments. On November 10, 2017, the defendants filed motions for summary judgment. On September 28, 2018, the SDNY granted in part and denied in part the defendants' motions for summary judgment, dismissing certain claims. On December 28, 2018, CSS LLC and its affiliates, together with Deutsche Bank Securities Inc., Deutsche Bank AG, and Merrill Lynch & Co., Inc. executed an agreement with the plaintiffs to settle this litigation. On January 10, 2019, the SDNY entered an order of final judgment dismissing with prejudice all claims against those defendants. This ends the last of CSS LLC and its affiliates' Enron-related litigation.

Mortgage-related matters

Government and regulatory related matters

Various financial institutions, including CSS LLC and certain of its affiliates, have received requests for information from, and/or have been defending civil actions by, certain regulators and/or government entities, including the US Department of Justice (DOJ) and other members of the Residential Mortgage-Backed Securities (RMBS) Working Group of the US Financial Fraud Enforcement Task Force, regarding the origination, purchase, securitization, servicing and trading of subprime and non-subprime residential and commercial mortgages and related issues. CSS LLC and its affiliates are cooperating with such requests for information.

DOJ RMBS settlement

As previously disclosed, on January 18, 2017, CSS LLC and its current and former US subsidiaries and US affiliates reached a settlement with the DOJ related to its legacy RMBS business, a business conducted through 2007. The settlement resolved potential civil claims by the DOJ related to certain of those Credit Suisse entities' packaging, marketing, structuring, arrangement, underwriting, issuance and sale of RMBS. Pursuant to the terms of the settlement a civil monetary penalty was paid to the DOJ in January 2017. The settlement also required the above-mentioned entities to provide a specified amount of consumer relief measures, including affordable housing payments and loan forgiveness, within five years of the settlement, and the DOJ and Credit Suisse agreed to the appointment of an independent monitor to oversee the completion of the consumer relief requirements of the settlement. The monitor has published reports on October 27, 2017, February 20, 2018 and August 31, 2018 noting Credit Suisse's cooperation and progress toward satisfaction of the consumer relief requirements.

NYAG and NJAG litigation

Following an investigation, on November 20, 2012, the New York Attorney General (NYAG), on behalf of the State of New York, filed a civil action in the Supreme Court for the State of New York, New York County (SCNY) against CSS LLC and affiliated entities in their roles as issuer, sponsor, depositor and/or underwriter of RMBS transactions prior to 2008. The complaint, which referenced 64 RMBS issued, sponsored, deposited and underwritten by CSS LLC and its affiliates in 2006 and 2007, alleged that CSS LLC and its affiliates misled investors regarding the due diligence and quality control performed on the mortgage loans underlying the RMBS at issue, and sought an unspecified amount of damages. On June 12, 2018, the New York State Court of Appeals ordered the partial dismissal of the NYAG's complaint, holding that the NYAG's claim pursuant to New York's Martin Act was time-barred and remanding the action to the SCNY for further proceedings on the NYAG's claim pursuant to New York's Executive Law. On December 31, 2018, pursuant to a settlement that resolved all claims by the NYAG against CSS LLC and its affiliates, the NYAG filed with the SCNY a stipulation dismissing its action with prejudice. The settlement required the Credit Suisse defendants to pay USD 10 million to the State of New York. This ends the action with the NYAG against CSS LLC and its affiliates. On December 18, 2013, the New Jersey Attorney General (NJAG), on behalf of the State of New Jersey, filed a civil action in the Superior Court of New Jersey, Chancery Division, Mercer County (SCNJ), against CSS LLC and affiliated entities in their roles as issuer, sponsor, depositor and/or underwriter of RMBS transactions prior to 2008. The original complaint, which referenced 13 RMBS issued, sponsored, deposited and underwritten by CSS LLC and its affiliates in 2006 and 2007, alleges that CSS LLC and its affiliates misled investors and engaged in fraud or deceit in connection with the offer and sale of RMBS, and seeks an unspecified amount of damages. On August 21, 2014, the SCNJ dismissed without prejudice the action brought against CSS LLC and its affiliates by the NJAG. On September 4, 2014, the NJAG filed an amended complaint against CSS LLC and its affiliates, asserting additional allegations but not expanding the number of claims or RMBS referenced in the original complaint. The NJAG action is at an intermediate procedural stage.

Civil litigation

CSS LLC and/or certain of its affiliates have also been named as defendants in various civil litigation matters related to their roles as issuer, sponsor, depositor, underwriter and/or servicer of RMBS transactions. These cases include or have included class action lawsuits, actions by individual investors in RMBS, actions by monoline insurance companies that guaranteed payments of principal and interest for certain RMBS, and repurchase actions by RMBS trusts, trustees and/or investors. Although the allegations vary by lawsuit, plaintiffs in the class actions and individual investor actions have generally alleged that the offering documents of securities issued by various RMBS securitization trusts contained material misrepresentations and omissions, including statements regarding the underwriting standards pursuant to which the underlying mortgage loans were issued; monoline insurers allege that loans that collateralize RMBS they insured breached representations and warranties made with respect to the loans at the time of securitization and that they were fraudulently induced to enter into the transactions; and repurchase action plaintiffs generally allege breached representations and warranties in respect of mortgage loans and failure to repurchase such mortgage loans as required under the applicable agreements. The amounts disclosed below do not reflect actual realized plaintiff losses to date or anticipated future litigation exposure. Rather, unless otherwise stated, these amounts reflect the original unpaid principal balance amounts as alleged in these actions and do not include any reduction in principal amounts since issuance. Further, unless otherwise stated, amounts attributable to an "operative pleading" for the individual investor actions are not altered for settlements, dismissals or other occurrences, if any, that may have caused the amounts to change subsequent to the operative pleading. In addition to the mortgage-related actions discussed below, a number of other entities have threatened to assert claims against CSS LLC and/or its affiliates in connection with various RMBS issuances.

Individual investor actions

CSS LLC and, in some instances, its affiliates, as an RMBS issuer, underwriter and/or other participant, along with other defendants, have been named as defendants in: (i) one action brought by the Federal Deposit Insurance Corporation (FDIC), as receiver for Citizens National Bank and Strategic Capital Bank, in the SDNY, in which claims against CSS LLC and its affiliates relate to approximately USD 28 million of the RMBS at issue (approximately 20% of the USD 141 million at issue against all defendants in the operative pleading); (ii) two actions brought by the FDIC, as receiver for Colonial Bank: one action in the SDNY, in which claims against CSS LLC relate to approximately USD 92 million of the RMBS at issue (approximately 23% of the USD 394 million at issue against all defendants in the operative pleading); and one action in the Circuit Court of Montgomery County, Alabama, in which claims against CSS LLC and its affiliates relate to approximately USD 139 million of the RMBS at issue (approximately 45% of the USD 311 million at issue against all defendants in the operative pleading), reduced from approximately USD 153 million following the February 14, 2017 dismissal with prejudice of claims pertaining to one RMBS offering on which CSS LLC and its affiliates were sued, and which has a trial scheduled to begin in April 2019; (iii) one action brought by the Federal Home Loan Bank of Seattle (FHLB Seattle) in Washington state court, in which claims against CSS LLC and its affiliates currently on appeal relate to approximately USD 145 million of the RMBS at issue, reduced from approximately USD 249 million of RMBS at issue; these claims were dismissed with prejudice in the trial court's May 4, 2016 summary judgment order; on May 3, 2018, the Washington State Supreme Court granted FHLB Seattle's petition for review of the Washington State Court of Appeals' decision affirming the trial court's dismissal of FHLB Seattle's claims; and (iv) one action brought by the Federal Home Loan Bank of Boston in Massachusetts state court, in which claims against CSS LLC and its affiliates relate to approximately USD 333 million of the RMBS at issue, reduced from USD 373 million (approximately 6% of the USD 5.7 billion at issue against all defendants in the operative pleading) following the October 27, 2015 stipulation of voluntary dismissal with prejudice of claims pertaining to a certain RMBS offering on which CSS LLC and its affiliates were sued. These actions are at various procedural stages.

CSS LLC and certain of its affiliates are the only defendants named in an action brought by IKB Deutsche Industriebank AG and affiliated entities in the SCNY, in which claims against CSS LLC and its affiliates relate to approximately USD 97 million of RMBS at issue; this action is at an intermediate procedural stage. CSS LLC and an affiliate were defendants in an action brought by Royal Park Investments SA/NV (Royal Park) in the SCNY, in which claims against CSS LLC and its affiliate related to approximately USD 360 million of RMBS at issue; on October 9, 2018, the Appellate Division First Department of the SCNY (First Department) affirmed the trial court's dismissal with prejudice of all claims against CSS LLC and its affiliate and, on January 15, 2019, the New York State Court of Appeals denied Royal Park's request to further appeal.

As disclosed in Credit Suisse's quarterly Financial Reports for 2018, individual investor actions discontinued during the course of 2018 included the following: (i) on July 19, 2018, following a settlement, the Tennessee state court presiding in the action brought by the Tennessee Consolidated Retirement System dismissed with prejudice all claims against CSS LLC relating to approximately USD 24 million of RMBS at issue; and (ii) on July 27, 2018, following a settlement, the SCNY presiding in the action brought by Phoenix Light SF Ltd. and affiliated entities dismissed with prejudice all claims against CSS LLC and its affiliates related to approximately USD 281 million of RMBS at issue.

Monoline insurer disputes

CSS LLC and certain of its affiliates are defendants in one monoline insurer action pending in the SCNY, commenced by MBIA Insurance Corp. (MBIA) as guarantor for payments of principal and interest related to approximately USD 770 million of RMBS issued in an offering sponsored by the Credit Suisse defendants. One theory of liability advanced by MBIA is that an affiliate of CSS LLC must repurchase certain mortgage loans from the trusts at issue. MBIA claims that the vast majority of the underlying mortgage loans breach certain representations and warranties, and that the affiliate has failed to repurchase the allegedly defective loans. In addition, MBIA brought claims for fraudulent inducement, material misrepresentations, breaches of warranties, repurchase obligations, and reimbursement. MBIA submitted repurchase demands for loans with an original principal balance of approximately USD 549 million. On March 31, 2017, the SCNY granted in part and denied in part both parties' respective summary judgment motions, which resulted, among other things, in the dismissal of MBIA's fraudulent inducement claim with prejudice. On September 13, 2018, the First Department issued a decision that, among other things, affirmed the dismissal of MBIA's fraudulent inducement claim with prejudice. The First Department also ruled in favor of CSS LLC and certain of its affiliates on their cross-appeal, reversing the trial court's interpretation of certain representations and warranties and ruling that their meaning should be decided at trial. Following its decision, the First Department remanded the action to the trial court for further proceedings. Trial in this action is scheduled to begin in July 2019.

Repurchase litigations

DLJ Mortgage Capital, Inc. (DLJ) is a defendant in: (i) one action brought by Asset Backed Securities Corporation Home Equity Loan Trust, Series 2006-HE7, in which plaintiff alleges damages of not less than USD 341 million, which will proceed in the SCNY following the resolution of a previously pending appeal; (ii) one action brought by Home Equity Asset Trust, Series 2006-8, in which plaintiff alleges damages of not less than USD 436 million; (iii) one action brought by Home Equity Asset Trust 2007-1, in which plaintiff alleges damages of not less than USD 420 million; (iv) one action brought by Home Equity Asset Trust Series 2007-3, in which plaintiff alleges damages of not less than USD 206 million, which was dismissed without prejudice by order of the SCNY on December 21, 2015 with leave to restore within one year and which plaintiff moved to restore on December 20, 2016, which the court granted on March 15, 2017 by restoring the case to active status; (v) one action brought by Home Equity Asset Trust 2007-2, in which plaintiff alleges damages of not less than USD 495 million; and (vi) one action brought by CSMC Asset-Backed Trust 2007-NC1, in which no damages amount is alleged. DLJ and its affiliate, Select Portfolio Servicing, Inc. (SPS), are defendants in: one action brought by Home Equity Mortgage Trust Series 2006-1, Home Equity Mortgage Trust Series 2006-3 and Home Equity Mortgage Trust Series 2006-4, in which plaintiffs allege damages of not less than USD 730 million, and allege that SPS obstructed the investigation into the full extent of the defects in the mortgage pools by refusing to afford the trustee reasonable access to certain origination files; and one action brought by Home Equity Mortgage Trust Series 2006-5, in which plaintiff alleges damages of not less than USD 500 million, and alleges that SPS likely discovered DLJ's alleged breaches of representations and warranties but did not notify the trustee of such breaches, in alleged violation of its contractual obligations. These actions are brought in the SCNY and are at various procedural stages.

As disclosed in Credit Suisse's fourth quarter Financial Report of 2013, the following repurchase actions were dismissed with prejudice in 2013: the three consolidated actions brought by Home Equity Asset Trust 2006-5, Home Equity Asset Trust 2006-6 and Home Equity Asset Trust 2006-7 against DLJ. Those dismissals were upheld by the New York State Court of Appeals on February 19, 2019. Separately, a notice of appeal has been filed before the First Department in these consolidated actions from the SCNY's April 2017 denial of plaintiffs' request that its 2013 dismissal decision be modified to allow plaintiffs to assert new claims not previously included in plaintiffs' consolidated complaint.

Bank loan litigation

On January 3, 2010, Credit Suisse AG and certain of its affiliates were named as defendants in a lawsuit filed in the US District Court for the District of Idaho by current or former homeowners in four real estate developments, Tamarack Resort, Yellowstone Club, Lake Las Vegas and Ginn Sur Mer. Credit Suisse defendants in this matter arranged, and acted as the agent bank for, syndicated loans provided to borrowers affiliated with all four developments, and who have been or are now in bankruptcy or foreclosure. Plaintiffs generally allege that Credit Suisse defendants committed fraud by using an unaccepted appraisal method to overvalue the properties with the intention of having the borrowers take out loans they could not repay because it would allow Credit Suisse defendants to later push the borrowers into bankruptcy and take ownership of the properties. Plaintiffs demanded USD 24 billion in damages. Cushman & Wakefield, the appraiser for the properties at issue, was also named as a defendant. After the filing of amended complaints and motions to dismiss, the claims were significantly reduced. On September 24, 2013, the court denied the plaintiffs' motion for class certification so the case could not proceed as a class action. On February 5, 2015, the court granted plaintiffs' motion for leave to file an amended complaint, adding additional individual plaintiffs. On April 13, 2015, the court granted plaintiffs' motion for leave to add a claim for punitive damages. On November 20, 2015, the plaintiffs moved for partial summary judgment, which the defendants opposed on December 14, 2015. On December 18, 2015, the defendants filed motions for summary judgment. On July 27, 2016, the US District Court for the District of Idaho granted the defendants' motions for summary judgment, dismissing the case with prejudice. On April 26, 2018, the United States Court of Appeals for the Ninth Circuit affirmed the granting of summary judgment for Credit Suisse AG and certain of its affiliates.

CSS LLC and certain of its affiliates are the subject of certain other related litigation regarding certain of these loans as well as other similar real estate developments. Such litigation includes two cases brought in Texas and New York state courts by entities related to Highland Capital Management LP (Highland). In the case in Texas state court, a jury trial was held in December 2014 on Highland's claim for fraudulent inducement by affirmative misrepresentation and omission. A verdict was issued for the plaintiff on its claim for fraudulent inducement by affirmative misrepresentation, but the jury rejected its claim that CSS LLC and an affiliate had committed fraudulent inducement by omission. The Texas judge held a bench trial on Highland's remaining claims in May and June 2015, and entered judgment in the amount of USD 287 million (including prejudgment interest) for the plaintiff on September 4, 2015. Both parties appealed and on February 21, 2018 the appeals court affirmed the lower court's decision. On March 7, 2018, the defendants filed a motion for rehearing with the appeals court. On April 2, 2018, the motion for rehearing with the appeals court was denied. On July 18, 2018, the defendants filed a request for review by the Texas Supreme Court. On December 14, 2018, the court issued an order requiring briefs on the merits in the request for review. In the case in New York state court, the court granted in part and denied in part CSS LLC and certain of its affiliates' summary judgment motion. Both parties appealed that decision, but the appellate court affirmed the decision in full. CSS LLC and certain of its affiliates separately sued Highland-managed funds on related trades and received a favorable judgment awarding both principal owed and prejudgment interest. Highland appealed the portion of the judgment awarding prejudgment interest, however the original decision was affirmed in its entirety. The parties subsequently agreed to settle the amount owed by the Highland-managed funds under the judgment.

Tax and securities law matters

On May 19, 2014, Credit Suisse AG entered into settlement agreements with several US regulators regarding its US cross-border matters. As part of the agreements, Credit Suisse AG, among other things, engaged an independent corporate monitor that reports to the New York State Department of Financial Services. As of July 31, 2018, the monitor has concluded both his review and his assignment.

Rates-related matters

Regulatory matters

Regulatory authorities in a number of jurisdictions, including the US, UK, EU and Switzerland, have for an extended period of time been conducting investigations into the setting of LIBOR and other reference rates with respect to a number of currencies, as well as the pricing of certain related derivatives. These ongoing investigations have included information requests from regulators regarding LIBOR-setting practices and reviews of the activities of various financial institutions, including Credit Suisse Group AG, which is a member of three LIBOR rate-setting panels (US Dollar LIBOR, Swiss Franc LIBOR and Euro LIBOR). Credit Suisse is cooperating fully with these investigations. In particular, it has been reported that regulators are investigating whether financial institutions engaged in an effort to manipulate LIBOR, either individually or in concert with other institutions, in order to improve market perception of these institutions' financial health and/or to increase the value of their proprietary trading positions. In response to regulatory inquiries, Credit Suisse commissioned a review of these issues. To date, Credit Suisse has seen no evidence to suggest that it is likely to have any material exposure in connection with these issues.

Regulatory authorities in a number of jurisdictions, including the Swiss Competition Commission (COMCO), the European Commission (Commission), the South African Competition Commission, and the Brazilian Competition Authority have been conducting investigations into the trading activities, information sharing and the setting of benchmark rates in the foreign exchange (including electronic trading) markets.

On March 31, 2014, COMCO announced its formal investigation of numerous Swiss and international financial institutions, including Credit Suisse Group AG, in relation to the setting of exchange rates in foreign exchange trading. Credit Suisse continues to cooperate with this ongoing investigation.

On July 26, 2018, Credit Suisse Group AG and certain affiliates received a Statement of Objections from the Commission, alleging that Credit Suisse entities engaged in anticompetitive practices in connection with their foreign exchange trading business. The Statement of Objections sets out the Commission's preliminary views and does not prejudge the final outcome of its investigation.

The reference rates investigations have also included information requests from regulators concerning supranational, sub-sovereign and agency (SSA) bonds and commodities (including precious metals) markets. Credit Suisse is cooperating fully with these investigations.

On December 20, 2018, Credit Suisse Group AG and Credit Suisse (Securities) Europe Limited received a Statement of Objections from the Commission, alleging that Credit Suisse entities engaged in anticompetitive practices in connection with its supranational, sub-sovereign, and agency (SSA) bonds trading business. The Statement of Objections sets out the Commission's preliminary views and does not prejudge the final outcome of its investigation.

The investigations are ongoing and it is too soon to predict the final outcome of the investigations.

Civil litigation

USD LIBOR litigation

Beginning in 2011, certain Credit Suisse entities were named in various civil lawsuits filed in the US, alleging banks on the US dollar LIBOR panel manipulated US dollar LIBOR to benefit their reputation and increase profits. All but one of these matters have been consolidated for pre-trial purposes into a multi-district litigation in the SDNY. The majority of the actions have been stayed since their outset, while a handful of individual actions and putative class actions have been proceeding. The Credit Suisse entities have been dismissed from all non-stayed putative class actions.

In a series of rulings between 2013 and 2018 on motions to dismiss, the SDNY (i) narrowed the claims against the Credit Suisse entities and the other defendants (dismissing antitrust, Racketeer Influenced and Corrupt Organizations Act (RICO), Commodity Exchange Act, and state law claims), (ii) narrowed the set of plaintiffs who may bring claims, and (iii) narrowed the set of defendants in the LIBOR actions (including the dismissal of several Credit Suisse entities from various cases on personal jurisdiction grounds). The plaintiffs have appealed several of the SDNY's rulings to the United States Court of Appeals for the Second Circuit (Second Circuit). On February 23, 2018, the Second Circuit issued a decision in an appeal of one individual (non-class) action that largely affirmed the SDNY's rulings, including upholding the dismissal of certain state law and securities law claims as to Credit Suisse Group AG, but vacated certain rulings and remanded the case for further proceedings. Another consolidated Second Circuit appeal is still pending.

Separately, on May 4, 2017, the plaintiffs in the three non-stayed putative class actions moved for class certification. On February 28, 2018, the SDNY denied certification in two of the actions and granted certification over a single antitrust claim in an action brought by over-the-counter purchasers of LIBOR-linked derivatives. In the same decision, the court dismissed Credit Suisse AG, the only remaining Credit Suisse entity in the action, from the over-the-counter action. All parties moved for immediate appellate review of the class-certification decisions, and the Second Circuit denied their petitions for review.

On June 15, 2018, plaintiffs in several non-class actions filed amended complaints or filed for leave to amend their currently operative complaints. On July 13, 2018, defendants moved to dismiss the amended complaints and opposed leave to amend.

In the one matter that is not consolidated in the multi-district litigation, the SDNY granted the defendants' motion to dismiss on March 31, 2015. On June 1, 2015, plaintiff filed a motion for leave to file a second amended complaint in the SDNY; defendants' opposition brief was filed on July 15, 2015. On March 20, 2018, the SDNY denied the plaintiff's request for leave to file an amended pleading and dismissed the case on the merits. Plaintiff appealed to the Second Circuit.

USD ICE LIBOR litigation

In January 2019, members of the US dollar Intercontinental Exchange (ICE) LIBOR panel, including Credit Suisse Group AG and certain of its affiliates, were named in three civil putative class action lawsuits alleging that panel banks suppressed US dollar ICE LIBOR to benefit defendants' trading positions. These actions have been consolidated in the SDNY.

CHF LIBOR litigation

In February 2015, various banks that served on the Swiss franc LIBOR panel, including Credit Suisse Group AG, were named in a civil putative class action lawsuit filed in the SDNY, alleging manipulation of Swiss franc LIBOR to benefit defendants' trading positions. On September 25, 2017, the SDNY granted defendants' motion to dismiss all claims, but permitted the plaintiffs to file an amended complaint. Defendants filed motions to dismiss the amended complaint on February 7, 2018.

SIBOR/SOR litigation

In July 2016, various banks that served on the Singapore Interbank Offered Rate (SIBOR) and Singapore Swap Offer Rate (SOR) panels, including Credit Suisse Group AG and affiliates, were named in a civil putative class action lawsuit filed in the SDNY, alleging manipulation of SIBOR and SOR to benefit defendants' trading positions. On August 18, 2017, the SDNY dismissed all claims against Credit Suisse Group AG and affiliates (and various other defendants) but granted the plaintiffs leave to amend their complaint. On October 4, 2018, the SDNY granted in part and denied in part defendants' motion to dismiss plaintiffs' second amended complaint, upholding antitrust claims against Credit Suisse AG and other panel bank defendants, but narrowing the claims to those related to Singapore Dollar SIBOR and dismissing all but one plaintiff from the action. The court also dismissed the RICO claims without leave to amend. On October 25, 2018, the remaining plaintiff filed a third amended complaint. The remaining defendants moved to dismiss on November 15, 2018.

Foreign exchange litigation

Credit Suisse Group AG and affiliates as well as other financial institutions are named in five pending civil lawsuits in the SDNY relating to the alleged manipulation of foreign exchange rates.

The first pending matter is a putative consolidated class action. On January 28, 2015, the court denied defendants' motion to dismiss the original consolidated complaint brought by US-based investors and foreign plaintiffs who transacted in the US, but granted their motion to dismiss the claims of foreign-based investors for transactions outside of the US. In July 2015, plaintiffs filed a second consolidated amended complaint, adding additional defendants and asserting additional claims on behalf of a second putative class of exchange investors. On September 20, 2016, the SDNY granted in part and denied in part a motion to dismiss filed by the Group and affiliates, along with other financial institutions, which reduced the size of the putative class, but allowed the primary antitrust and Commodity Exchange Act claims to survive. On May 31, 2018, plaintiffs served a motion for class certification, which the Group and affiliates opposed on October 25, 2018.

The second pending matter names Credit Suisse AG and affiliates, as well as other financial institutions in a putative class action filed in the SDNY on June 3, 2015. This action is based on the same alleged conduct as the consolidated class action and alleges violations of the US Employee Retirement Income Security Act of 1974 (ERISA). On August 23, 2016, the SDNY granted a motion to dismiss filed by affiliates of Credit Suisse AG, along with other financial institutions. Plaintiffs appealed that decision, and on July 10, 2018, the Second Circuit issued an order affirming in full the SDNY's decision to dismiss the putative ERISA class action against Credit Suisse AG and affiliates as well as other defendant financial institutions and denying plaintiffs' request for leave to amend their complaint.

The third pending matter names Credit Suisse Group AG and affiliates, as well as other financial institutions, in a consolidated putative class action filed in the SDNY, alleging manipulation of the foreign exchange market on behalf of indirect purchasers of foreign exchange instruments. On March 15, 2018, the court issued a decision granting defendants' joint motion to dismiss and dismissing the consolidated complaint in its entirety. On October 25, 2018, the SDNY granted in substantial part plaintiffs' motion for leave to file a proposed second consolidated class action complaint, which plaintiffs filed on November 28, 2018. On December 20, 2018, the Group, together with other financial institutions, filed a motion to dismiss on the basis of personal jurisdiction.

The fourth pending matter names Credit Suisse Group AG and affiliates in a putative class action filed in the SDNY on July 12, 2017, alleging improper practices in connection with electronic foreign exchange trading. On April 12, 2018, the SDNY granted defendants' motion to compel arbitration.

The fifth pending matter names Credit Suisse Group AG and affiliates, as well as other financial institutions, in a civil action filed in the SDNY on November 13, 2018. This action is based on the same alleged conduct as the consolidated class action. On March 1, 2019, plaintiffs filed an amended complaint.

Credit Suisse Group AG and certain of its affiliates, together with other financial institutions, have also been named in two Canadian putative class actions, which make allegations similar to the consolidated class action. Further, Credit Suisse Group AG and certain of its affiliates, together with other financial institutions, have also been named in two putative class actions in Israel, which makes allegations similar to the consolidated class action.

ISDAFIX litigation

Credit Suisse AG, New York Branch, and other financial institutions were also named in a consolidated civil class action lawsuit relating to the alleged manipulation of the ISDAFIX rate for US dollars in the SDNY. On April 11, 2016, Credit Suisse AG, New York Branch entered into a settlement agreement with plaintiffs. On June 1, 2018, the SDNY approved plaintiffs' settlement agreement with Credit Suisse AG, New York Branch, and several other financial institutions. The settlement provides for dismissal of the case with prejudice and a settlement payment of USD 50 million.

Treasury markets litigation

CSS LLC, along with over 20 other primary dealers of US treasury securities, has been named in a number of putative civil class action complaints in the US relating to the US treasury markets. These complaints generally allege that defendants colluded to manipulate US treasury auctions, as well as the pricing of US treasury securities in the when-issued market, with impacts upon related futures and options. These actions have been consolidated into a multi-district litigation in the SDNY. On August 23, 2017, the SDNY appointed lead counsel, and on August 25, 2017, three purported class representatives re-filed their complaints as a collective individual action. On November 15, 2017, plaintiffs filed a consolidated amended class action complaint naming CSS LLC, Credit Suisse Group AG, and Credit Suisse International (CSI), along with a narrower group of other defendants. The consolidated complaint contains previously-asserted allegations as well as new allegations concerning a group boycott to prevent the emergence of anonymous, all-to-all trading in the secondary market for treasury securities. On February 23, 2018, defendants served motions to dismiss on plaintiffs and the SDNY entered a stipulation voluntarily dismissing Credit Suisse Group AG and other defendant holding companies. On March 26, 2018, the SDNY entered a stipulation voluntarily dismissing CSI for lack of personal jurisdiction.

SSA bonds litigation
Credit Suisse Group AG and affiliates, along with other financial institutions and individuals, have been named in several putative class action complaints filed in the SDNY relating to SSA bonds. The complaints generally allege that defendants conspired to fix the prices of SSA bonds sold to and purchased from investors in the secondary market. These actions have been consolidated in the SDNY. On April 7, 2017, plaintiffs filed a consolidated class action complaint. Plaintiffs filed a consolidated amended class action complaint on November 3, 2017, which defendants moved to dismiss on December 12, 2017. On August 24, 2018, the SDNY granted defendants' motion to dismiss for failure to state a claim, but granted plaintiffs leave to amend. On November 6, 2018, plaintiffs filed a second consolidated amended class action complaint, which defendants moved to dismiss on December 21, 2018.

Separately, on February 7, 2019, Credit Suisse AG and certain of its affiliates, together with other financial institutions and individuals, were named in a putative class action filed in the SDNY, which makes allegations similar to the consolidated class action, but seeks to represent a putative class of indirect purchasers of US dollar SSA bonds where the purchase was made in or connected to New York.

Credit Suisse Group AG and certain of its affiliates, together with other financial institutions, have also been named in two Canadian putative class actions, which make allegations similar to the consolidated class action.

Bank Bill Swap litigation
On August 16, 2016, Credit Suisse Group AG and Credit Suisse AG, along with other financial institutions, were named in a putative class action brought in the SDNY, alleging manipulation of the Australian Bank Bill Swap reference rate. Plaintiffs filed an amended complaint on December 16, 2016, which defendants moved to dismiss on February 24, 2017. On November 26, 2018, the SDNY granted in part and denied in part defendants' motions to dismiss, including dismissing the complaint in its entirety against Credit Suisse Group AG and Credit Suisse AG. On March 4, 2019, plaintiffs were granted leave to file a second amended complaint.

Mexican government bonds litigation
Credit Suisse AG and affiliates have been named in multiple putative class actions in US federal court alleging a conspiracy among Credit Suisse entities and other dealer banks to manipulate the Mexican government bond market. These actions have been consolidated in the SDNY and on July 18, 2018, plaintiffs filed their consolidated amended complaint. On September 17, 2018, defendants filed motions to dismiss the consolidated amended complaint.

Freddie Mac and Fannie Mae bonds litigation
Since February 22, 2019, Credit Suisse AG and CSS LLC, together with other financial institutions, have been named in multiple putative class action complaints filed in the SDNY, alleging a conspiracy among the financial institutions to fix prices for unsecured bonds issued by Freddie Mac and Fannie Mae.

OTC trading cases

Credit Suisse Group AG and affiliates, along with other financial institutions, have been named in one consolidated putative civil class action complaint and one consolidated complaint filed by individual plaintiffs relating to interest rate swaps, alleging that dealer defendants conspired with trading platforms to prevent the development of interest rate swap exchanges. The individual lawsuits were brought by TeraExchange LLC, a swap execution facility, and affiliates, and Javelin Capital Markets LLC, a swap execution facility, and an affiliate, which claim to have suffered lost profits as a result of defendants' alleged conspiracy. All interest rate swap actions have been consolidated in a multi-district litigation in the SDNY. Both class and individual plaintiffs filed second amended consolidated complaints on December 9, 2016, which defendants moved to dismiss on January 20, 2017. On July 28, 2017, the SDNY granted in part and denied in part defendants' motions to dismiss. On February 21, 2018, class plaintiffs moved for leave to amend and file a proposed third amended consolidated class action complaint. On May 10, 2018, the SDNY issued an order granting in part and denying in part class plaintiffs' motion for leave to amend and file a third amended consolidated class action complaint. The SDNY granted plaintiffs' motion to add a new plaintiff and factual allegations relating to the claims that survived the motion to dismiss, but denied plaintiffs' attempt to revive the dismissed claims. On May 30, 2018, plaintiffs filed the third amended complaint.

On June 14, 2018, a new direct action complaint was filed by swap execution facility trueEX LLC. On June 20, 2018, the trueEX LLC complaint was added to the existing multi-district litigation. On August 9, 2018, trueEX LLC filed an amended complaint against Credit Suisse Group AG and affiliates, along with other financial institutions, which defendants moved to dismiss on August 28, 2018. On November 20, 2018, the SDNY issued an order granting in part and denying in part defendants' motion to dismiss the trueEX LLC amended complaint. The SDNY granted defendants' motion to dismiss trueEX LLC's state law claims, but denied the motion as to trueEX LLC's antitrust claims. On October 25, 2018, class plaintiffs moved for leave to file a fourth amended consolidated complaint. On February 20, 2019, class plaintiffs filed motions for class certification. On March 13, 2019, the SDNY issued an order granting in part and denying in part class plaintiffs' motion for leave to amend and file a fourth amended consolidated class action complaint.

On June 8, 2017, Credit Suisse Group AG and affiliates, along with other financial institutions, were named in a civil action filed in the SDNY by Tera Group, Inc. and related entities (collectively "Tera"), alleging violations of antitrust law in connection with the allegation that credit default swap (CDS) dealers conspired to block Tera's electronic CDS trading platform from successfully entering the market. On September 11, 2017, defendants filed motions to dismiss.

Credit Suisse Group AG and certain of its affiliates, as well as other financial institutions, have been defending against a number of civil lawsuits in the SDNY, certain of which are brought by class action plaintiffs alleging that the defendants conspired to keep stock-loan trading in an over-the-counter market and collectively boycotted certain trading platforms that sought to enter the market, and certain of which are brought by trading platforms that sought to enter the market alleging that the defendants collectively boycotted the platforms. The SDNY denied defendants' motions to dismiss in the putative class action. In each of the lawsuits, the court entered a stipulation voluntarily dismissing Credit Suisse Group AG and other defendant holding companies, although certain Credit Suisse Group AG affiliates remain part of the ongoing action.

ATA litigation

A lawsuit was filed on November 10, 2014 in the US District Court for the Eastern District of New York (EDNY) against a number of banks, including Credit Suisse AG, alleging claims under the United States Anti-Terrorism Act (ATA). The action alleges a conspiracy between Iran and various international financial institutions, including the defendants, in which they agreed to alter, falsify or omit information from payment messages that involved Iranian parties for the express purpose of concealing the Iranian parties' financial activities and transactions from detection by US authorities. The complaint, brought by approximately 200 plaintiffs, alleges that this conspiracy has made it possible for Iran to transfer funds to Hezbollah and other terrorist organizations actively engaged in harming US military personnel and civilians. On July 12, 2016, plaintiffs filed a second amended complaint in the EDNY against a number of banks, including Credit Suisse AG, alleging claims under the ATA. On September 14, 2016, Credit Suisse AG and the other defendants filed motions to dismiss the plaintiffs' second amended complaint in the EDNY. Another lawsuit was filed on November 9, 2017, in the SDNY against a number of banks, including Credit Suisse AG, alleging claims under the ATA. On March 2, 2018, Credit Suisse AG and other defendants filed motions to dismiss the plaintiffs' complaint. This action and the separate lawsuit that was filed on November 10, 2014 in the EDNY, remain pending.

In December 2018, five additional lawsuits were filed in the EDNY or SDNY against a number of banks, including Credit Suisse AG and, in two instances, Credit Suisse AG, New York Branch. alleging claims under the ATA and the Justice Against Sponsors of Terrorism Act. These actions similarly allege a conspiracy between Iran and various international financial institutions, including the defendants, in which they agreed to alter, falsify or omit information from payment messages that involved Iranian parties, and that this conspiracy made it possible for Iran to transfer funds to terrorist organizations actively engaged in harming US military personnel and civilians.

MPS

In late 2014, the Monte dei Paschi di Siena Foundation (Foundation) filed a lawsuit in the Civil Court of Milan, Italy seeking EUR 3 billion in damages jointly from Credit Suisse Securities (Europe) Limited (CSSEL), Banca Leonardo & Co S.p.A. and former members of the Foundation's management committee. The lawsuit relates to the fairness opinions CSSEL and Banca Leonardo & Co S.p.A. delivered to the Foundation in connection with the EUR 9 billion acquisition of Banca Antonveneta S.p.A. by Banca Monte dei Paschi di Siena S.p.A. (BMPS) in 2008. BMPS funded the acquisition by a EUR 5 billion rights offer and the issuance of unredeemable securities convertible into BMPS shares, in which the Foundation invested EUR 2.9 billion and EUR 490 million, respectively. The Foundation alleges that the fairness opinions were issued in the absence of key financial information. CSSEL believes that the claim lacks merit and is not supported by the available evidence. In November 2017, the Civil Court of Milan rejected the Foundation's claims, ruling in favor of CSSEL. In January 2018, the Foundation filed an appeal against this ruling.

Customer account matters

Several clients have claimed that a former relationship manager in Switzerland had exceeded his investment authority in the management of their portfolios, resulting in excessive concentrations of certain exposures and investment losses. Credit Suisse AG is investigating the claims, as well as transactions among the clients. Credit Suisse AG filed a criminal complaint against the former relationship manager with the Geneva Prosecutor's Office upon which the prosecutor initiated a criminal investigation. Several clients of the former relationship manager also filed criminal complaints with the Geneva Prosecutor's Office. On February 9, 2018, the former relationship manager was sentenced to five years in prison by the Geneva criminal court for fraud, forgery and criminal mismanagement and ordered to pay damages of approximately USD 130 million. Several parties have appealed the judgement. Civil lawsuits were initiated on August 25, 2017 in the High Court of Singapore, the High Court of New Zealand and the Supreme Court of Bermuda against Credit Suisse AG and certain affiliates, based on the findings established in the criminal proceedings against the former relationship manager. On July 17, 2018, the High Court of New Zealand dismissed the civil lawsuit brought against Credit Suisse AG and stayed the same lawsuit against a New Zealand incorporated affiliate. On August 31, 2018, the civil lawsuit was stayed by an Assistant Registrar of the High Court of Singapore. Plaintiffs in both the New Zealand and Singapore civil proceedings have appealed these decisions. On January 18, 2019 the Singapore High Court dismissed the plaintiffs' appeal and upheld the Assistant Registrar's decision to stay the civil proceedings in Singapore; the plaintiffs have appealed this decision.

FIFA-related matters

In connection with investigations by US and Swiss government authorities into the involvement of financial institutions in the alleged bribery and corruption surrounding the Fédération Internationale de Football Association (FIFA), Credit Suisse received inquiries from these authorities regarding its banking relationships with certain individuals and entities associated with FIFA, including but not limited to certain persons and entities named and/or described in the May 20, 2015 indictment and the November 25, 2015 superseding indictment filed by the Eastern District of New York US Attorney's Office. The US and Swiss investigations encompassed whether multiple financial institutions, including Credit Suisse, permitted the processing of suspicious or otherwise improper transactions, or failed to observe anti-money laundering laws and regulations, with respect to the accounts of certain persons and entities associated with FIFA. Credit Suisse continues to cooperate with US authorities on this matter. As previously disclosed, the Swiss Financial Market Supervisory Authority FINMA has announced the conclusion of its investigation.

External asset manager matter

Several clients have claimed that an external asset manager based in Geneva misappropriated funds, forged bank statements, transferred assets between client accounts at Credit Suisse AG as custodian to conceal losses and made investments without the authorization of those clients. Credit Suisse AG is investigating the claims. The Geneva Prosecutor's Office initiated a criminal investigation against representatives of the external asset manager and two former Credit Suisse AG employees. This investigation was expanded in November 2018 to also include one former and one current Credit Suisse AG employee and Credit Suisse AG itself in order to assess the sufficiency of Credit Suisse AG's controls and supervision. Credit Suisse AG, in March 2019, reached a tentative settlement with the affected clients.

Mossack Fonseca/Israel Desk matters

Credit Suisse, along with many financial institutions, has received inquiries from governmental and regulatory authorities concerning banking relationships between financial institutions, their clients and the Panama-based law firm of Mossack Fonseca. Credit Suisse has also received governmental and regulatory inquiries concerning cross-border services provided by Credit Suisse's Switzerland-based Israel Desk. Credit Suisse is conducting a review of these issues and has been cooperating with the authorities.

Mozambique matter

Credit Suisse is responding to requests from regulatory and enforcement authorities related to certain Credit Suisse entities' arrangement of loan financing to Mozambique state enterprises, Proindicus S.A. and Empresa Mocambiacana de Atum S.A. (EMATUM), a distribution to private investors of loan participation notes (LPN) related to the EMATUM financing in September 2013, and certain Credit Suisse entities' subsequent role in arranging the exchange of those LPNs for Eurobonds issued by the Republic of Mozambique. On January 3, 2019, the United States Attorney for the Eastern District of New York unsealed an indictment against several individuals in connection with the matter, including three former Credit Suisse employees. Credit Suisse is cooperating with the authorities on this matter. On February 27, 2019, certain Credit Suisse entities, the same three former employees, and several other unrelated entities were sued in the English High Court by the Republic of Mozambique. Credit Suisse has not yet been served. Credit Suisse is aware of statements made by the Attorney General of Mozambique and notes that it had no involvement in the transaction with Mozambique Asset Management S.A.

Cross-border private banking matters

Credit Suisse offices in various locations, including the UK, the Netherlands and France, have been contacted by regulatory and law enforcement authorities that are seeking records and information concerning investigations into our historical private banking services on a cross-border basis and in part through our local branches and banks. Credit Suisse has conducted a review of these issues and is cooperating with the authorities. Credit Suisse applies a strict zero tolerance policy on tax evasion.

Hiring practices investigation

On May 30, 2018, Credit Suisse (Hong Kong) Limited (CSHKL) entered into a non-prosecution agreement to resolve the investigation of past hiring practices between 2007 and 2013 in the Asia Pacific region by the US Department of Justice (DOJ), under which CSHKL paid a penalty of USD 47 million. No criminal charges were filed and no monitor was required. As part of the agreement, Credit Suisse AG will continue to cooperate with the DOJ, will maintain prescribed standards in its compliance programs and will report to the DOJ on the functioning of its enhanced compliance programs. On July 5, 2018, Credit Suisse Group AG reached a settlement with the US Securities and Exchange Commission to resolve the parallel investigation of the same conduct for USD 29.8 million.

Write-downs litigation

On December 22, 2017, Credit Suisse Group AG and certain current and former executives were named in a class action complaint filed in the SDNY on behalf of a putative class of purchasers of Credit Suisse Group AG American Depositary Receipts (ADRs), asserting claims for violations of Sections 10(b) and 20(a) of the US Securities Exchange Act of 1934 and Rule 10b-5 thereunder, alleging that defendants sanctioned increases to trading limits that ultimately led to write-downs in the fourth quarter of 2015 and the first quarter of 2016 and a decline in the market value of the ADRs. On April 18, 2018, plaintiffs filed an amended complaint, which asserts substantially the same claims as the original complaint. On February 19, 2019, the SDNY granted in part and denied in part, defendants' motion to dismiss the amended complaint. The decision narrows the scope of the action to claims related to statements concerning Credit Suisse's risk limits and controls. On March 6, 2019, defendants filed a motion for reconsideration. Discovery is ongoing.

ETN-related litigation

Since March 14, 2018, three class action complaints were filed in the SDNY on behalf of a putative class of purchasers of VelocityShares Daily Inverse VIX Short Term Exchange Traded Notes linked to the S&P 500 VIX Short-Term Futures Index due December 4, 2030 (XIV ETNs). On August 20, 2018, plaintiffs filed a consolidated amended complaint, naming Credit Suisse Group AG and certain affiliates and executives, along with Janus Index & Calculation Services LLC and affiliates, which asserts claims for violations of Sections 9(a)(4), 9(f), 10(b) and 20(a) of the US Securities Exchange Act of 1934 and Rule 10b-5 thereunder and Sections 11 and 15 of the US Securities Act of 1933 and alleges that the defendants are responsible for losses to investors following a decline in the value of XIV ETNs on February 5, 2018. Defendants moved to dismiss the amended complaint on November 2, 2018.

On April 17, 2018, Credit Suisse AG, along with Janus Index & Calculation Services, LLC, was named in an individual civil action in the Northern District of Alabama that makes allegations similar to those alleged in the consolidated New York action. On August 10, 2018, defendants filed a motion to transfer the action to the SDNY, which was denied on December 17, 2018. On September 26, 2018, defendants filed a motion to dismiss the Alabama complaint. On December 4, 2018, plaintiffs filed an amended complaint, which defendants moved to dismiss on January 11, 2019.

On February 4, 2019, Credit Suisse Group AG and certain affiliates and executives, along with Janus Index & Calculation Services LLC and affiliates, were named in a separate individual action brought in the EDNY, which asserts claims substantially similar to those brought in the consolidated action.

On February 4, 2019, Credit Suisse Group AG and certain affiliates and executives, along with Janus Index & Calculation Services LLC and affiliates, were named in a class action complaint filed in the SDNY brought on behalf of a putative class of purchasers of VelocityShares Daily Inverse VIX Medium Term Exchange Traded Notes linked to the S&P 500 VIX Mid-Term Futures Index due December 4, 2030 (ZIV ETNs). The complaint asserts claims for violations of Sections 9(a)(4), 9(f), 10(b) and 20(a) of the US Securities Exchange Act of 1934 and Rule 10b-5 thereunder and Sections 11 and 15 of the US Securities Act of 1933 and alleges that the defendants are responsible for losses to investors following a decline in the value of ZIV ETNs in February 2018.

TWINT

On November 13, 2018, COMCO announced an investigation into several Swiss financial institutions, including UBS Switzerland AG, Credit Suisse (Schweiz) AG, Aduno Holding AG, PostFinance AG, and Swisscard AECS GmbH. According to COMCO, its investigation is focused on whether these institutions entered into an agreement to boycott mobile payment solutions of international providers, including Apple Pay and Samsung Pay, in order to protect TWINT, their own Swiss payment solution.

SWM

CSI is the defendant in a lawsuit brought by the German public utility company Stadtwerke München GmbH in a German court, in connection with a series of interest rate swaps entered into between 2008 and 2012. The claimant alleges breach of an advisory duty to provide both investor- and investment-specific advice, including in particular a duty to disclose the initial mark-to-market value of the trades at inception.

APPENDIX 7 — A BRIEF GUIDE TO CREDIT RATINGS

Information set out in this appendix 7 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 at the day immediately preceding the date of this document. Information appearing on those websites does not form part of this 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 7 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 7 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 at the day immediately preceding the date of this 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 weaken the obligor's capacity 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?rd=understandingratings.com 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 judged to be 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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