Amendment to Program Information

Credit Suisse International

AMENDMENT TO PROGRAM INFORMATION

Type of Information:	Amendment to Program Information
Date of Announcement:	21 October 2019
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Address of Website for Announcement:	https://www.jpx.co.jp/english/equities/products/tpbm/announcement/index.html
Information on initial Program Information:	
Date of Announcement:	20 August 2019
Scheduled Issuance Period:	21 August 2019 to 20 August 2020
Maximum Outstanding Issuance Amount:	Unlimited

This amendment is filed to update the information included in the Program Information dated 20 August 2019. This constitutes an integral part of the Program Information dated 20 August 2019 and shall be read together with it.

Supplement to Listing Supplement

Credit Suisse International

Debt Issuance Programme
(Unlimited Program Size)

This Supplement (the "**Supplement**") is supplemental to, and should be read in conjunction with, (i) the Listing Supplement dated 2 October 2015 (the "**Listing Supplement**") in respect of the debt issuance programme established by Credit Suisse International ("**CSi**" or the "**Issuer**") on 10 August 2006 for the issuance of securities of CSi (the "**Securities**") (as supplemented from time to time), (ii) any other documents incorporated by reference therein and (iii) in relation to any particular Securities, the Pricing Supplement relating to those Securities. Capitalised terms used in this Supplement but not defined herein shall have the meanings ascribed to them in the Listing Supplement.

Supplement to Listing Supplement dated 21 October 2019

The new sections entitled "Types of underlying assets", "EU Benchmark Regulation: Article 29(2) statement on benchmarks" and "Potential for Discretionary Determinations by the Issuer under the Securities" shall be added after the section entitled "Pricing Supplement", the section entitled "EEA RETAIL INVESTORS" shall be added before the section entitled "No Investment Advice" in the Listing Supplement, and the sections in the Listing Supplement entitled "Potential for Discretionary Determinations by the Issuer under the Securities", "The distribution of the Listing Supplement and this Supplement to Listing Supplement is restricted" and "United States restrictions" shall be updated by the information below in the Listing Supplement.

This section supersedes the paragraph entitled "European Economic Area" in the section headed "Sale and Subscription" set out in in Annex 1 (Programme Memorandum).

Types of underlying assets

The economic or "payout" terms of the Securities (as defined in the Listing Supplement) may be linked to movements in one or more of the following types of underlying assets (each, an "**Underlying Asset**"):

- an equity share;
- an equity index; or
- an exchange-traded fund.

The interest payable under certain Securities issued under the Listing Supplement and this Supplement to Listing Supplement may also be calculated by reference to a fixed rate of interest or a reference rate for determining floating rate interest.

EU Benchmark Regulation: Article 29(2) Statement on Benchmarks

Amounts payable under the Securities may be calculated by reference to one or more specific indices, rates or price sources or a combination of indices, rates or price sources. Any such index, rate or price source may constitute a benchmark for the purposes of Regulation (EU) 2016/1011 of the European Parliament and of the Council on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the "**EU Benchmark Regulation**"). In cases where amounts payable under Securities are calculated by reference to one or more indices, rates or price sources, the relevant Pricing Supplement will specify:

- the name of each index, rate or price source so referenced;
- the legal name of the administrator of each such index, rate or price source; and
- whether or not the legal name of the administrator of each such index, rate or price source appears on the register (the "**Benchmark Register**") of administrators and benchmarks established and maintained by the European Securities and Markets Authority ("**ESMA**") pursuant to Article 36 of the EU Benchmark Regulation at the date of the relevant Pricing Supplement.

Not every index, rate or price source will fall within the scope of the EU Benchmark Regulation. Where an index, rate or price source falls within the scope of the EU Benchmark Regulation, the transitional provisions in Article 51 or the provisions of Article 2 of the EU Benchmark Regulation may apply, such that the administrator of such index, rate or price source is not at the date of the relevant Pricing Supplement required to obtain authorisation/registration (or, if located outside the European Union, recognition, endorsement or equivalence).

The registration status of any administrator under the EU Benchmark Regulation is a matter of public record and, save where required by applicable law, the Issuer does not intend to update the relevant Pricing Supplement to reflect any change in the registration status of the administrator.

Potential for Discretionary Determinations by the Issuer under the Securities

Under the terms and conditions of the Securities, following the occurrence of certain events outside of its control, the Issuer may determine in its discretion to take one or more of the actions available to it in order to deal with the impact of such event on the Securities or the Issuer or both. It is possible that any such discretionary determinations by the Issuer could have a material adverse impact on the value of and return on the Securities. An overview of the potential for discretionary determinations by the Issuer under the Securities is set forth in the section headed "Overview of the Potential for Discretionary Determinations by the Issuer" on pages 65 to 70 of this Supplement to Listing Supplement.

EEA RETAIL INVESTORS

The Securities are not intended to be offered, sold or otherwise made available to and may not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("**EEA Retail Investor**"). For these purposes, an EEA Retail Investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU on Markets in Financial Instruments (as may be amended, varied or replaced from time to time) ("**MiFID II**"); (ii) a customer within the meaning of Directive (EU) 2016/97 (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 Regulation (EU) 2017/1129 (the "**Prospectus Regulation**"). Consequently no key information document required by Regulation (EU) No 1286/2014 (the "**PRIIPs Regulation**") for offering or selling the Securities or otherwise making them available to EEA Retail Investors has been prepared and therefore offering or selling such Securities or otherwise making them available to any EEA Retail Investor may be unlawful under the PRIIPs Regulation.

The distribution of the Listing Supplement and this Supplement to Listing Supplement is restricted

The distribution of the Listing Supplement and this Supplement to Listing Supplement, and the offering or sale of the Securities in certain jurisdictions may be restricted by law. Persons into whose possession this document comes are required by the Issuer to inform themselves about, and to observe, such restrictions. For a description of certain restrictions on offers or sales of the Securities and the distribution of this document and other offering materials relating to the Securities, please refer to the section headed "Sale and Subscription" of Annex 1 (*Programme Memorandum*) of the Listing Supplement.

In relation to each Member State of the European Economic Area (including, for this purpose, the United Kingdom), the Dealer represents, warrants and agrees that it has not made and will not make an offer of Securities to the public (within the meaning of the Prospectus Regulation) in that Member State except that it may make an offer of Securities to the public in that Member State in circumstances which do not require the publication by the Issuer or the Dealer of a prospectus pursuant to the Prospectus Regulation.

United States restrictions

The Securities have not been and will not be registered under the U.S. Securities Act of 1933 (the "**Securities Act**") and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except in certain transactions exempt from the registration requirements of the Securities Act and applicable state securities laws. A further description of the restrictions on offers and sales of the Securities in the United States or to U.S. persons is set out in the section headed "Sale and Subscription – United States" of Annex 1 (*Programme Memorandum*) of the Listing Supplement.

OVERVIEW OF THE PROGRAMME

The sections in the Listing Supplement entitled "Description of CREDIT SUISSE INTERNATIONAL", "Securities", "Status of Securities", "Underlying Assets", "Adjustments", "Key risks relating to the Issuer" and "Key risks relating to the Securities" under "OVERVIEW OF THE PROGRAMME" shall be updated by the information below.

Description of CREDIT SUISSE INTERNATIONAL

The Issuer is an unlimited liability company incorporated in England and Wales. The Issuer is authorised by the Prudential Regulation Authority ("**PRA**") and regulated by the Financial Conduct Authority ("**FCA**") and the PRA and operates under English law. The Issuer's registered head office is in London and is located at One Cabot Square, London E14 4QJ and its telephone number is +44 (0)20 7888 8888.

Securities

Securities entitle the holder to payment on the Maturity Date of the Redemption Amount (or delivery on the Share Delivery Date of the Share Amount and payment on the Maturity Date of the Fractional Cash Amount, as applicable). The Redemption Amount payable on the Maturity Date (or the Share Amount deliverable on the Share Delivery Date, as applicable) may either be the outstanding principal amount (or a specified percentage thereof) or may be linked to one or more Underlying Assets (as described below). The specified denomination and the Maturity Date will be specified in the relevant Pricing Supplement.

Unless redeemed by instalments (if so specified in the relevant Pricing Supplement) the Securities will be redeemed on the Maturity Date specified in the relevant Pricing Supplement. If so specified in the relevant Pricing Supplement, there may also be interim payments and/or mandatory early redemption and/or redemption at the option of the Issuer and/or the holders. Otherwise, Securities may only be redeemed before the Maturity Date for reasons of default by the Issuer or the illegality of the Issuer's payment obligations or hedging arrangements or following certain events affecting the Underlying Assets and/or its hedging arrangements.

The Securities may bear interest and/or premium at a fixed rate or at different fixed rates for different periods or may bear interest at one or more fixed rates followed by a period in which they bear a floating rate of interest or may bear a floating rate of interest throughout the term of the Securities. Alternatively, they may bear no interest and/or premium. In the case of floating rate interest, the rate will be reset periodically by reference to a reference rate specified in the relevant Pricing Supplement and may be at such rates or at a margin above or below such rates and may be subject to one or more maximum and/or minimum rates of interest and/or premium as the case may be, all as specified in the relevant Pricing Supplement. The Securities may also bear interest that is linked to one or more Underlying Assets.

Status of Securities

The Securities are unsubordinated and unsecured obligations of the Issuer and will rank equally among themselves and with all other unsubordinated and unsecured obligations of the Issuer from time to time outstanding.

Underlying Assets

The amount payable in respect of Securities may be linked to the performance of one or more shares (which may include depositary receipts), equity indices, exchange-traded funds, and/or other variables.

Adjustments

The terms and conditions of the Securities contain provisions dealing with non-business days, non-scheduled trading days, disruption events, adjustment events, extraordinary events and other events affecting the Issuer's hedging arrangements, the Underlying Asset(s) or the relevant reference rate(s) which may affect the timing and calculation of payments and may result in the Securities being redeemed prior to their scheduled maturity and/or adjustments being made to the Securities.

Key risks relating to the Issuer

Securities are general unsecured obligations of the Issuer. Securityholders are exposed to the risk that the Issuer could become insolvent and fail to make the payments owing by it under the Securities.

The Issuer is exposed to a variety of risks that could adversely affect its operations and/or financial condition, including liquidity risk, market risk, credit risk, risks relating to its strategy, risks from estimates and valuations, risks relating to off-balance sheet entities, country and currency exchange risk, operational and compliance risk, legal (including regulatory) risks, competition risk, conduct risk, technology risk and reputational risk and the risks of regulatory action in the event that it is failing or the UK resolution authority considers that it is likely to fail.

Key risks relating to the Securities

Investors may lose some or all of their investment if one or more of the following occurs: (a) the Securities do not provide for scheduled repayment in full of the issue or purchase price at maturity or upon mandatory early redemption or optional early redemption of the Securities, (b) the Issuer fails and is unable to make payments owing under the Securities, (c) any adjustments are made to the terms and conditions of the Securities following certain events affecting the Issuer's hedging arrangements or the Underlying Asset(s), that result in the amount payable or shares delivered being reduced, or (d) investors sell their Securities prior to maturity in the secondary market at an amount that is less than the initial purchase price.

Prospective investors should have regard to the factors described under the section headed "Risk Factors" in the Listing Supplement and this Supplement to Listing Supplement. The Issuer is acting solely in the capacity of an arm's length contractual counterparty and not as an investor's financial adviser or fiduciary in any transaction. The purchase of Securities involves substantial risks and an investment in Securities is only suitable for investors who (either alone or in conjunction with an appropriate financial adviser) fully evaluate the risks and merits of such an investment in the Securities and who have sufficient resources to be able to bear any losses that may result therefrom. Therefore, before making an investment decision, prospective investors of Securities should ensure that they understand the nature of the Securities and the extent of their exposure to risks and consider carefully, in the light of their own financial circumstances, financial condition and investment objectives, all the information set forth in the Listing Supplement and this Supplement to Listing Supplement and any documents incorporated by reference herein. The Listing Supplement and this Supplement to Listing Supplement cannot disclose whether the Securities are a suitable investment in relation to any investor's particular circumstances; therefore investors may wish to consult their own financial, tax, legal or other advisers as they consider appropriate and carefully review and consider such an investment decision in the light of the information set forth in the Listing Supplement and this Supplement to Listing Supplement.

A secondary market for the Securities may not develop and, if one does develop, it may not provide the holders of the Securities with liquidity and may not continue for the life of the Securities. The Issuer may, but is not obliged to, purchase the Securities at any time at any price, and may hold, resell or cancel them. Where the relevant distributor(s) may only confirm the amount or number of Securities sold to investors after the Securities have been issued, the Issuer may cancel some of the Securities if the amount or number of Securities subscribed for or purchased is less than the aggregate nominal amount or number of Securities (as applicable) issued on the Issue Date. The market for the Securities may be limited. The only way in which a holder can realise value from a Security prior to its maturity is to sell it at its then market price in the market. The price in the market for a Security may be less than its issue price even though the value of the Underlying Asset(s) may not have changed since the issue date. Further, the price at which a holder sells its Securities in the market may reflect a commission or a dealer discount, which would further reduce the proceeds it would receive for its Securities. If you sell your Securities prior to the Maturity Date or the Settlement Date, as the case may be, you may suffer a substantial loss. Any investor in the Securities must be prepared to hold such Securities for an indefinite period of time or until redemption or expiry of the Securities.

Where amounts payable under Securities are linked to one or more Underlying Assets, an investment in the Securities is not the same as an investment in the Underlying Asset(s) or an investment directly linked to the Underlying Asset(s), and an investor may be worse off as a result. For example:

- the Underlying Asset(s) will not be held by the Issuer for the benefit of investors, and investors will have no rights of ownership, including, without limitation, any voting rights, any rights to receive dividends or other distributions or any other rights with respect to any Underlying Asset referenced by such Securities;

- if the Securities are subject to a cap, an investor will not participate in any change in the value of the Underlying Asset(s) over and beyond the price, level, rate or other applicable value needed to reach the cap; and

- if the participation rate of the Securities is less than 100 per cent., an investor will not participate fully in the performance (whether positive or negative) of the Underlying Asset(s). In such case, an investor's return may be significantly less than if the holder had purchased the Underlying Asset(s) directly (or otherwise obtained a direct exposure).

The past performance of an Underlying Asset is not a reliable indicator of its future performance. The level, price, rate or other applicable value of an Underlying Asset may go down as well as up throughout the term of the Securities, and such fluctuations may affect the value of and return on the Securities.

Before purchasing Securities, investors should ensure that they understand the unique nature, characteristics and risks of the Underlying Asset(s), and how the value of the Securities could be affected by the performance of the Underlying Asset(s).

If an Underlying Asset is located in or exposed to one or more emerging market countries, there may be additional event, political, economic, credit, currency, market, regulatory/legal, settlement and clearing risks.

Investors may be exposed to currency risks because (a) an Underlying Asset may be denominated or priced in currencies other than the currency in which the Securities are denominated, or (b) the Securities and/or such Underlying Asset may be denominated in currencies other than the currency of the country in which the investor is resident. The value of the Securities may therefore increase or decrease as a result of fluctuations in those currencies.

In certain circumstances, the Issuer may make adjustments to the terms of the Securities (including substituting or replacing an Underlying Asset or reference rate, as the case may be) or redeem or cancel them at an Early Redemption Amount as determined by it without the consent of the Securityholders. Such an Early Redemption Amount may be less than the issue price or purchase price of the Securities and may be as low as zero. In making any such adjustments or determinations, the Issuer in such capacity will (whether or not already expressed to be the case in the Conditions) act in good faith and in a commercially reasonable manner, and (where there is a corresponding applicable regulatory obligation) shall take into account whether fair treatment is achieved by any such adjustments or determinations in accordance with its applicable regulatory obligations. Please refer to the section headed "Overview of the Potential for Discretionary Determinations by the Issuer" for more information.

The Issuer is subject to a number of conflicts of interest, including:

- in making certain calculations and determinations, there may be a difference of interest between the Securityholders and the Issuer;

- in the ordinary course of its business the Issuer (or an affiliate) may effect transactions for its own account and may enter into hedging transactions with respect to the Securities or Underlying Asset(s) which may affect the market price, liquidity or value of the Securities;

- the Issuer (or an affiliate, or any employees thereof) may have confidential information in relation to an Underlying Asset or any derivative instruments referencing it, but which the Issuer is under no obligation (and may be subject to legal prohibition) to disclose; and

- in relation to proprietary indices sponsored by the Issuer or an affiliate.

Unless otherwise specified in the relevant Pricing Supplement, the net proceeds from each issue of Securities will be used to hedge the obligations of the Issuer under the Securities and for general corporate purposes.

Save for any fees payable to the Dealer(s) and/or Selling Agent(s) and unless otherwise specified in the relevant Pricing Supplement, so far as the Issuer is aware, no person involved in the issue or offer of the Securities has an interest material to such issue or offer.

The applicable terms and conditions of the Securities and any expenses charged to the investor will be specified in the relevant Pricing Supplement.

RISK FACTORS

The section in the Listing Supplement entitled "RISK FACTORS" shall be updated by the information below in its entirety.

You should read the section headed "1. General considerations" below for an explanation of this "Risk Factors" section and of the risk factors provided.

Warning: The terms and conditions of certain Securities issued under the Listing Supplement and this Supplement to Listing Supplement may not provide for scheduled repayment in full of the issue or purchase price at maturity (or over the relevant instalment dates, if applicable). In such case, you may lose some or all of your investment.

Even if the relevant Securities do provide for scheduled repayment in full of the issue or purchase price at maturity (or over the relevant instalment dates, if applicable) or upon mandatory early redemption or optional early redemption of the Securities, you will still be exposed to the credit risk of the Issuer and will lose up to the entire value of your investment if the Issuer either fails or is otherwise unable to meet its payment obligations. The Securities are not deposits and are not protected under any deposit insurance or protection scheme.

You may also lose some or all of your investment if:

- **you sell your Securities prior to maturity in the secondary market at an amount that is less than your initial purchase price;**
- **your Securities are redeemed early under their terms and conditions at the discretion of the Issuer and the Early Redemption Amount paid to you is less than the initial purchase price; or**
- **your Securities are subject to certain adjustments in accordance with the terms and conditions of the Securities that may result in any amount payable (or deliverable) on the Securities (whether at maturity or otherwise) being reduced to, or being valued at, an amount that is less than your investment.**

1. General considerations

(a) General

The purchase of Securities involves substantial risks and an investment in the Securities is only suitable for investors who have the knowledge and experience in financial and business matters necessary to enable them (either alone or in conjunction with an appropriate financial adviser) to evaluate the risks and merits of an investment in the Securities and who have sufficient resources to be able to bear any losses that may result therefrom. The Issuer is acting solely in the capacity of an arm's length contractual counterparty and not as an investor's financial adviser or fiduciary in any transaction.

Before making any investment decision, prospective investors in the Securities should ensure that they understand the nature of the Securities and the extent of their exposure to the risks involved.

The Issuer believes that the factors described below may affect its abilities to fulfil its obligations under the Securities. Most of these factors are contingencies which may or may not occur and which could have a material adverse effect on the Issuer's businesses, operations, financial condition or prospects, which, in turn, could have a material adverse effect on the return investors will receive on the Securities. The Issuer does not express a view on the likelihood of any such contingency occurring.

The Issuer believes that the factors described below are material for the purpose of assessing the market risks associated with the Securities and represent the material risks inherent in investing in the Securities, but these are not the only risks that the Issuer faces or that may arise under the Securities. There will be other risks that the Issuer does not currently consider to be material, or risks that the Issuer is currently not aware of, or risks that arise due to circumstances specific to the investor, and the Issuer does not represent that the statements below regarding the risks of holding any Securities are exhaustive of all such risks.

More than one investment risk may have simultaneous effect with regard to the value of the Securities and the effect of any single investment risk may not be predictable. In addition, more than one investment risk may have a compounding effect and no assurance can be given as to the effect that any combination of investment risks may have on the value of Securities.

(b) **Additional information relating to Securities issued by the Issuer**

Pursuant to Article 41(4) of Commission Delegated Regulation (EU) 2017/565, in respect of certain Securities issued by the Issuer, we are required to provide you with an explanation of the differences between such Securities and bank deposits in respect of the following attributes.

Yield

The yield on a bank deposit will be dependent on the interest that the bank agrees to pay on the money deposited, which may fluctuate from time to time as determined by the bank. The yield on the Securities will be dependent on its particular terms and, while the actual interest payable on the Securities may change from time to time in accordance with the terms of the Securities, the method of calculation should not fluctuate over its term. In certain circumstances, it may be the case that no interest is paid on the Securities. Where the Securities do not provide for scheduled repayment in full of the issue or purchase price at maturity or upon mandatory early redemption or optional early redemption of the Securities, the yield will be reduced by any loss of the initial capital which is invested.

Risk

The risk of a bank deposit reflects the credit risk of the institution with which it is held. Subject to any protection available under the Financial Services Compensation Scheme, in the event of the bank's insolvency, you would rank as a general creditor and may lose some or all of the value of your investment including your initial capital.

The risk of repayment of the Securities principally reflects the credit risk of the Issuer; the risk on payment of any interest or return on the Securities (if any) principally will reflect market risks that affect the Underlying Assets.

Subject to any protection available under the Financial Services Compensation Scheme, as a holder of the Securities, in the event of our insolvency, your position will depend on the terms of the Securities and the application of any mandatory rules (for example, the bail-in rules under the EU Bank Recovery and Resolution Directive).

There are other potential risks to payment of the interest and/or repayment of the capital depending on the terms of the Securities. For example, if the Securities are redeemed early pursuant to their terms and conditions at the discretion of the Issuer, the Early Redemption Amount may, subject to the conditions and other restrictions set out in the terms and conditions, be less than the initial issue price or purchase price.

Liquidity

A bank deposit is repayable on demand and an investor will, subject to the insolvency of the institution with which it is held, be able to redeem it at any point, unless the deposit is subject to particular withdrawal restrictions (e.g. term deposits), in which case liquidity will be more restricted. The Securities may only be redeemed in accordance with their terms. It may not be possible to realise your investment in the Securities before the expiry of the term or without incurring additional costs.

Protection

A bank deposit held in the UK will be protected by the Financial Services Compensation Scheme which will guarantee the first £85,000 of your investment in the event of our insolvency, provided you are eligible under such scheme. Your investment in the Securities will not be protected by the Financial Services Compensation Scheme.

2. Risks associated with the creditworthiness of the Issuer

(a) **General risks**

The Securities are general unsecured obligations of the Issuer. Securityholders are exposed to the credit risk of the Issuer. The Securities will be adversely affected in the event of (i) a default, (ii) a reduced credit rating of the Issuer, (iii) increased credit spreads charged by the market for taking credit risk on the Issuer or (iv) a deterioration in the solvency of the Issuer.

If the Issuer either fails or is otherwise unable to meet its payment obligations, you may lose up to the entire value of your investment. The Securities are not deposits and are not protected under any deposit insurance or protection scheme.

The profitability of the Issuer will be affected by, among other things, liquidity risk, market risk, credit risk, risks relating to its strategy, risks from estimates and valuations, risks relating to off-balance sheet entities, country and currency exchange risk, operational and compliance risk, legal (including regulatory) risk, competition risk, conduct risk, technology risk and reputational risk. These risks are discussed in further detail below.

These risk factors should be read together with the risk factors listed under risk factor 2(b) (Risks relating to the Issuer) below. Such risk factors are risk factors that are material to the Securities in order to assess the market risk associated with them or which may affect the Issuer's ability to fulfil its obligations under them.

(b) **Risks relating to the Issuer**

The Issuer faces a variety of risks that are substantial and inherent in its businesses including market risk, liquidity risk, currency risk, credit risk, country risk, legal (including regulatory) risk, operational and compliance risk, conduct risk, cyber risk and reputational risk. These are described in more detail below.

(i) **Market risk**

Overview

Market risk is the risk of loss arising from adverse changes in interest rates, foreign currency exchange rates, equity prices, commodity prices and other relevant parameters, such as market volatilities and correlations. The Issuer defines its market risk as potential changes in the fair values of financial instruments in response to market movements. A typical transaction will be exposed to a number of different market risks.

The Issuer has policies and processes in place to ensure that market risk is captured, accurately modelled and reported, and effectively managed. Trading and non-trading portfolios are managed at various organisational levels, from the overall risk positions at the Issuer level down to specific portfolios. The Issuer uses market risk measurement and management methods in line with regulatory and industry standards. These include general tools capable of calculating comparable risk metrics across the Issuer's many activities and focused tools that can specifically model the unique characteristics of certain instruments or portfolios. The tools are used for internal market risk management, internal market risk reporting and external disclosure purposes. The principal portfolio measurement methodologies are Value-at-Risk ("**VaR**") and scenario analysis. The risk management techniques and policies are regularly reviewed to ensure they remain appropriate.

Value-at-Risk

VaR measures the potential loss in terms of fair value of financial instruments due to adverse market movements over a defined time horizon at a specified confidence level. VaR is applicable for market risk exposures with appropriate price histories. Positions can be aggregated in several ways, across risk factors, products and businesses. For example, interest rate risk includes risk arising from money market and swap transactions, bonds, and interest rate, foreign exchange, equity and commodity options. The use of VaR allows the comparison of risk across different asset classes, businesses and divisions, and also provides a means of aggregating and netting a variety of positions within a portfolio to reflect actual correlations and offsets between different assets.

Historical financial market rates, prices and other relevant parameters serve as a basis for the statistical VaR model underlying the potential loss estimation. The Issuer uses a ten-day holding period and a confidence level of 99 per cent. to model the risk in its trading portfolios. These assumptions are compliant with the standards published by the Basel Committee on Banking Supervision ("**BCBS**").

The Issuer uses a historical simulation model for the majority of the risk types and businesses within its trading portfolios. Where insufficient data is available for such an approach, an 'extreme-move' methodology is used.

The model is based on the profit or loss distribution resulting from historical changes in market rates, prices and other relevant parameters applied to evaluate the portfolio. This methodology also avoids any explicit assumptions on the correlation between risk factors. The VaR model uses a two-year historical dataset to compute VaR. To ensure that VaR responds appropriately in times of market stress, the model uses a time-weighting scheme in which more recent events are assigned a higher weight in the calculation. This results in a more responsive VaR model, as the impact of changes in the overall market volatility is reflected promptly in the VaR model output.

The Issuer has approval from the PRA to use its regulatory VaR model in the calculation of the trading book market risk capital requirements.

The VaR model uses assumptions and estimates that the Issuer believes are reasonable, but changes to assumptions or estimates could result in a different VaR measure. The main assumptions and limitations of VaR as a risk measure are:

- VaR relies on historical data to estimate future changes in market conditions, which may not capture all potential future outcomes, particularly where there are significant changes in market conditions and correlations across asset classes.

- VaR provides an estimate of losses at a 99 per cent. confidence level, which means that it does not provide any information on the size of losses that could occur beyond that threshold.

- VaR is based on a ten-day holding period. This assumes that risks can be either sold or hedged over that period, which may not be possible for all types of exposure, particularly during periods of market illiquidity or turbulence.

- VaR is calculated using positions held at the end of each business day and does not include intra-day changes in exposures.

Scenario analysis

Stress testing complements other risk measures by capturing the Issuer's exposure to unlikely but plausible events, which can be expressed through a range of significant moves across multiple financial markets. The majority of scenario analysis calculations performed are specifically tailored toward the risk profile of particular businesses, and limits may be established if they are considered the most appropriate control. In addition, to identify areas of risk concentration and potential vulnerability to stress events at the Issuer level, a set of scenarios are used which are consistently applied across all businesses and assess the impact of significant, simultaneous movements across a broad range of markets and asset classes.

Stress testing is a fundamental element of the Issuer's risk control framework, stress testing results are used in risk appetite discussions and strategic business planning, and support the Issuer's internal capital adequacy assessment. Stress testing is conducted on a regular basis and the results, trend information and supporting analysis are reported to the Issuer's Board of Directors, senior management and shared and discussed with the business lines.

Scenarios can be defined with reference to historic events or based on forward looking, hypothetical events that could impact the Issuer's positions, capital, or profitability. The scenarios used within the Issuer are reviewed at the individual risk committee level as well as by a dedicated scenario design forum. It is expected that the scenarios used within the Issuer are redefined as required by changes in market conditions and as business strategies evolve.

Trading portfolios

Risk measurement and management

Market risk arises in the Issuer's trading portfolios primarily through the trading activities within the Issuer.

For the purposes of this disclosure, VaR is used to quantify market risk in the trading portfolio. This classification of assets as trading is based on the trading intent and for the purpose of analysing the Issuer's market risk exposure, not for financial statement purposes.

The Issuer is active in the principal global trading markets, using the majority of common trading and hedging products, including derivatives such as swaps, futures, options and structured products (some of which are customised transactions using combinations of derivatives and executed to meet specific client or proprietary needs). As a result of the Issuer's broad participation in products and markets, trading strategies are correspondingly diverse and exposures are generally spread across a range of risk factors and locations.

Development of trading portfolio risks

The following table shows the trading related market risk exposure for the Issuer, as measured by ten-day 99 per cent. VaR. VaR estimates are computed separately for each risk type and for the whole portfolio using the historical simulation methodology. The diversification benefit reflects the net difference between the sum of the 99th percentile loss for each individual risk type and for the total portfolio.

Ten-day, 99 per cent. VaR – trading portfolios

End of period	*Interest rate and credit spread*	*Foreign exchange*	*Commodity*	*Equity*	*Diversification benefit*[1]	*Total*
2018 (USD million)						
Average	26	7	4	20	(24)	33
Minimum	14	4	2	10	–[2]	16
Maximum	55	15	8	54	–[2]	67
End of period	27	5	3	44	(22)	57
2017 (USD million)						
Average	29	8	6	13	(29)	26
Minimum	19	4	2	8	–[2]	16
Maximum	48	15	10	30	–[2]	47
End of period	34	6	3	17	(33)	26

[1] VaR estimates are calculated separately for each risk type and for the whole portfolio using the historical simulation methodology.

Diversification benefit reflects the net difference between the sum of the 99th percentile loss.

[2] As the minimum and maximum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit.

VaR results

The CSi group's ten-day, 99 per cent. regulatory VaR as of 31 December 2018 increased by 114 per cent. to USD 57 million, compared to 31 December 2017 (USD 26 million).

Banking portfolios

Risk measurement and management

The market risks associated with the non-trading portfolios are measured, monitored and limited using several tools, including scenario analysis, sensitivity analysis and VaR. For the purpose of this disclosure, the aggregated market risks associated with the Issuer's non-trading portfolios are measured using sensitivity analysis. The sensitivity analysis for the non-trading activities measures the amount of potential change in economic value resulting from specified hypothetical shocks to market factors. It is not a measure of the potential impact on reported earnings in the current period, since the non-trading activities generally are not marked to market through earnings. Foreign exchange translation risk is not included in this analysis.

Development of non-trading portfolio risks

Interest rate risk on banking book positions is shown using sensitivity analysis that estimates the potential change in value resulting from defined changes in interest rate yield curves. The impact of a one-basis-point parallel move in yield curves on the fair value of interest rate-sensitive non-trading book positions would be USD 0.15 million as of 31 December 2018 compared to USD 0.03 million as of 31 December 2017. Non-trading interest rate risk is assessed using other measures including the potential value change resulting from a significant change in yield curves. As of 31 December 2018, the fair value impacts of 200-basis-point move in yield curves (no flooring at zero) were:

- A fair value gain of USD 29 million (2017: loss of USD 7 million) for a +200bps move.
- A fair value loss of USD 43 million (2017: loss of USD 19 million) for a -200bps move.

(ii) **Liquidity risk**

Liquidity risk is the risk that a bank is unable to fund assets and meet obligations as they fall due in times of stress, whether caused by market events and/or firm-specific issues.

Group-wide management of liquidity risk

The liquidity and funding strategy of Credit Suisse is approved by the Capital Allocation and Risk Management Committee ("**CARMC**") and overseen by the Credit Suisse Group AG Board of Directors ("**CSG Board**").

CARMC includes the Chief Executive Officers ("**CEOs**") of the Credit Suisse group ("**Group**") and the divisions, the Chief Financial Officer ("**CFO**"), the Chief Risk Officer ("**CRO**"), the Chief Compliance and Regulatory Affairs Officer and the Treasurer, and it is responsible for review of the capital position, balance sheet development, current and prospective funding, interest rate risk and foreign exchange exposure, as well as defining and monitoring the adherence to internal risk limits. CARMC also regularly reviews the methodology and assumptions of the liquidity risk management framework and determines the liquidity horizon to be maintained.The CSG Board defines Credit Suisse's risk tolerance, including liquidity risk, and sets parameters for the balance sheet and funding usage by businesses. The CSG Board is responsible for defining overall risk tolerance in the form of a risk appetite statement.The implementation and execution of the liquidity and funding strategy is managed by Treasury. Treasury ensures adherence to the Credit Suisse funding policy and the efficient coordination of secured funding desks. This approach enhances Credit Suisse's ability to manage potential liquidity and funding risks and to promptly adjust liquidity and funding levels to meet stress situations.

The liquidity and funding profile is reported regularly to CARMC and the CSG Board and it reflects Credit Suisse strategy and risk appetite and is driven by business activity levels and the overall operating environment. The liquidity and funding policy is designed to ensure that Credit Suisse assets are funded and Credit Suisse liquidity obligations are met as they fall due in times of stress, whether caused by market events and/or Credit Suisse specific issues. This is achieved thorough a conservative asset/liability management strategy aimed at maintaining long-term funding, including stable deposits, in excess of illiquid assets.

To address short-term liquidity stress, a liquidity pool comprising of cash held at central banks and high-quality liquid assets ("**HQLA**") is maintained and managed by Treasury for the purpose of covering unexpected outflows in the event of severe market and idiosyncratic stress. Credit Suisse liquidity risk parameters reflect various liquidity stress assumptions calibrated as such that in the event Credit Suisse is unable to access unsecured funding, Credit Suisse expects to have sufficient liquidity to sustain operations for a period of time in excess of the minimum limit. This includes potential currency mismatches, which are monitored and subject to limits, particularly in the significant currencies of euro, Japanese yen, pound sterling, Swiss franc and U.S. dollar.Credit Suisse uses the internal liquidity Barometer to manage its liquidity to internal targets and as a basis to model both Credit Suisse-specific and market-wide stress scenarios and their impact on the liquidity and funding over different time horizons. Other functionalities include the ability to manage entity-specific liquidity, and low point and currency controls. The internal Barometer framework also supports the management of the funding structure.

In the event of a liquidity crisis, Credit Suisse would activate its Contingency Funding Plan ("**CFP**"),which focuses on the specific actions that would be taken as a response, including a detailed communication plan for creditors, investors and customers.

On the regulatory front, in 2010, the BCBS issued the Basel III international framework for liquidity risk measurement, standards and monitoring.

The Basel III framework includes a liquidity coverage ratio ("**LCR**") and a net stable funding ratio ("**NSFR**").

The LCR, which was phased in from 1 January 2015 through 1 January 2019, addresses liquidity risk over a 30-day period. The LCR aims to ensure that banks have a stock of unencumbered HQLA available to meet short-term liquidity needs under a severe stress scenario. The LCR is comprised of two components, the value of HQLA in stressed conditions and the total net cash outflows calculated according to specified scenario parameters. Under the BCBS requirements, the ratio of liquid assets over net cash outflows was subject to an initial minimum requirement of 60% as of 1 January 2015, which was increased by 10% per year and is currently at 100% since 1 January 2019.

The NSFR establishes criteria for a minimum amount of stable funding based on the liquidity of a bank's on- and off-balance sheet activities over a one-year horizon. The NSFR is a complementary measure to the LCR and is structured to ensure that illiquid assets are funded with an appropriate amount of stable long-term funds. The NSFR is defined as the ratio of available stable funding over the amount of required stable funding and (once implemented by local regulators) should always be at least 100%.

It should be noted that local regulators are free to interpret the BCBS proposals and have implemented various aspects differently including timescales for implementation of the LCR and NSFR.

Legal entity management of liquidity risk

The legal entity internal liquidity risk management framework is aligned with the Group-wide approach but also incorporates local regulatory compliance requirements. Such compliance requirements are measured as part of the PRA's Individual Liquidity Guidance which results in the Issuer holding term funding and a local liquid asset buffer of qualifying securities.

Following global regulatory developments, the European Banking Authority has published its version of the LCR and NSFR as part of the implementation guidance for Basel III. Under Capital Requirements Directive ("**CRD**") IV guidelines, the LCR was initially introduced with a minimum requirement of 80 per cent. on 1 October 2015 with an increase to 90 per cent. from 1 January 2017 and full compliance by 1 January 2018 (one year prior to BCBS guidelines). The NSFR was expected to be introduced on 1 January 2018 in-line with the BCBS proposal, however in November 2016 the European Commission confirmed that it will not apply at a level of 100 per cent. until two years after the date of entry in to force of the proposed regulation. The date of entry into force is not yet known.

In the context of legal entity liquidity management, the Issuer's Board of Directors is responsible for setting the liquidity risk appetite. Some of the key characteristics determining the liquidity risk management approach in the Issuer include, but are not limited to:

- The Issuer's Board of Directors approved legal entity risk appetite;
- Compliance with local regulatory requirements;

- Holding a liquid asset portfolio composed of highly liquid unencumbered assets;
- The liquidity value of assets, liabilities and the calibration of contingent liabilities being aligned with the Credit Suisse global liquidity risk methodologies.

The Issuer has implemented a liquidity risk management framework including legal entity governance, systems and controls and frequent management information to measure, monitor and manage the liquidity risk.

The legal entity risk appetite and assumptions underlying relevant stress tests, which form part of the Issuer's liquidity risk management framework, are reviewed by Liquidity Risk and Treasury and ultimately approved by the Issuer's Board of Directors on at least an annual basis or as market conditions dictate.

The authority to set more granular limits is delegated by the Issuer's Board of Directors to the Issuer's Executive Committee which has appointed the Issuer Chief Risk Officer ("**CSi CRO**") as the Accountable Executive; operating limits are approved through the Issuer Risk Management Committee ("**CSi RMC**").

Treasury is responsible for maintaining sufficient HQLA collateral to meet regulatory and internal stress requirements. Treasury is also responsible for maintaining a CFP that details specific dealing strategies, actions and responsibilities required depending upon severity of the crisis. Treasury supports the plan with key liquidity tools, including early warning indicators. The CFP gives consideration to the impact of operational constraints in terms of time and ability to monetise assets, trapped liquidity, daylight collateral requirements and communication strategies.

Incremental to the Issuer's unsecured funding sources from Credit Suisse, the Issuer has the ability to access secured funding markets via repurchase and stock lending agreements. These funding streams provide diversification to the funding profile of the entity.

The following table sets out details of the remaining contractual maturity of all financial liabilities:

Group 31 December 2018	*On Demand*	*Due within 3 months*	*Due between 3 and 12 months*	*Due between 1 and 5 years*	*Due after 5 years*	*Total*
Financial liabilities (USD million)						
Deposits	1,028	-	-	-	-	**1,028**
Securities sold under repurchase agreements and securities lending transactions	1,610	776	5	-	-	**2,391**
Trading financial liabilities mandatorily at fair value through profit or loss	126,414	-	-	-	-	**126,414**
Financial liabilities designated at fair value through profit or loss[1]	2,455	10,505	1,458	5,633	4,113	**24,164**

Borrowings	-	19,555	-	-	-	**19,555**
Debt in issuance	-	2,847	1,564	7,772	8	**12,191**
Other liabilities	23,339	-	-	-	-	**23,339**
Liabilities held for sale	-	-	-	-	-	**-**
Total	**154,846**	**33,683**	**3,027**	**13,405**	**4,121**	**209,082**

[1] In addition certain of the financial liabilities designated at fair value through profit or loss include certain structured notes that have mandatory early redemption features based on stipulated movements in markets or the occurrence of a market event. With respect to these notes those that have an observable likelihood of redemption occurring within one year based on a modelling assessment are also current liabilities. Within the population this includes USD 87 million of such notes with a contractual maturity of between 1 and 5 years.

Group 31 December 2017	*On Demand*	*Due within 3 months*	*Due between 3 and 12 months*	*Due between 1 and 5 years*	*Due after 5 years*	*Total*
Financial liabilities (USD million)						
Deposits	188	-	-	-	-	**188**
Securities sold under repurchase agreements and securities lending transactions	1,512	874	4,603	-	204	**7,193**
Trading financial liabilities at fair value through profit or loss	149,505	-	-	-	-	**149,505**
Financial liabilities designated at fair value through profit or loss	1,040	11,706	3,185	5,997	971	**22,899**
Borrowings	-	5,909	31	-	-	**5,940**
Debt in issuance	-	3,269	1,775	10,775	1,104	**16,923**
Other liabilities	24,176	-	-	-	-	**24,176**
Liabilities held for sale	117	-	-	-	-	**117**
Total	**176,538**	**21,758**	**9,594**	**16,772**	**2,279**	**226,941**

The Issuer 31 December 2018	*On Demand*	*Due within 3 months*	*Due between 3 and 12 months*	*Due between 1 and 5 years*	*Due after 5 years*	*Total*
Financial liabilities (USD million)						
Deposits	1,028	-	-	-	-	**1,028**
Securities sold under repurchase agreements and securities lending transactions	1,610	776	5	-	-	**2,391**
Trading financial liabilities mandatorily	126,414	-	-	-	-	**126,414**

at fair value through profit or loss						
Financial liabilities designated at fair value through profit or loss[1]	2,455	10,505	1,441	5,395	4,307	**24,103**
Borrowings	-	19,555	-	-	-	**19,555**
Debt in issuance	-	2,847	1,547	7,636	3	**12,033**
Other liabilities	23,339	-	-	-	-	**23,339**
Liabilities held for sale	-	-	-	-	-	**-**
Total	**154,846**	**33,683**	**2,993**	**13,031**	**4,310**	**208,863**

[1] In addition certain of the financial liabilities designated at fair value through profit or loss include certain structured notes that have mandatory early redemption features based on stipulated movements in markets or the occurrence of a market event. With respect to these notes those that have an observable likelihood of redemption occurring within one year based on a modelling assessment are also current liabilities. Within the population this includes USD 0.1 billion of such notes with a contractual maturity of between 1 and 5 years.

The Issuer *31 December 2017*	*On Demand*	*Due within 3 months*	*Due between 3 and 12 months*	*Due between 1 and 5 years*	*Due after 5 years*	*Total*
Financial liabilities (USD million)						
Deposits	188	-	-	-	-	**188**
Securities sold under repurchase agreements and securities lending transactions	1,512	874	4,603	-	204	**7,193**
Trading financial liabilities at fair value through profit or loss	149,506	-	-	-	-	**149,506**
Financial liabilities designated at fair value through profit or loss	1,040	11,706	3,185	5,997	971	**22,899**
Borrowings	-	5,909	31	-	-	**5,940**
Debt in issuance	-	3,269	1,756	10,657	1,104	**16,786**

Other liabilities	24,176	-	-	-	-	**24,176**
Liabilities held for sale	117	-	-	-	-	**117**
Total	**176,539**	**21,758**	**9,575**	**16,654**	**2,279**	**226,805**

Liabilities in trading portfolios have not been analysed by contractual maturity because these liabilities are used to risk manage positions held across the Group and can be closed out at very short notice. They have been classified as being 'on demand' at their fair value.

For instruments with perpetual features (i.e. no maturity dates), the projected coupons have been excluded. Callable deposits, open ended positions and overnight funding will be recorded at their present value in an 'on demand' categorisation. This classification will be based on the underlying legal and contractual ability of the counterparty or the bank to put or call the positions at short notice.

(iii) **Currency risk**

The Issuer takes on exposure to the effects of fluctuations in the prevailing foreign currency exchange rates on its financial position and cash flows.

The Issuer has approval to manage its own trading P&L related foreign exchange risk through a formal trading mandate and has defined risk limits using the VaR methodology. Its currency exposure within the non-trading portfolios is managed through the Group's levelling process as set out in the Corporate Foreign Exchange Policy. Both these methodologies are discussed in more detail in risk factor 2(b)(i) (*Risks relating to the Issuer – Market Risk*) above.

(iv) **Credit risk**

Credit risk is the possibility of a loss being incurred as the 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 customer default a bank generally incurs a loss equal to the amount owed by the debtor, less any recoveries from foreclosure, liquidation of collateral or the restructuring of the debtor company. A change in the credit quality of the counterparty has an impact on the valuation of assets eligible for fair value measurement, with valuation changes recorded in the Consolidated Statement of Income.

Credit risk in the Issuer is managed by the Issuer's Credit Risk Management ("**CSi CRM**") department, which is headed by the Issuer's Chief Credit Officer ("**CSi CCO**"), who in turn reports to the CSi CRO. CSi CRM is a part of the wider CRM department, which is an independent function with responsibility for approving credit limits, monitoring and managing individual exposures and assessing and managing the quality of the segment and business areas' credit portfolios and allowances.

The head of CRM reports to the Chief Risk Officer of the Group. All credit limits in the Issuer are subject to approval by CSi CRM.

Credit risk management approach

Effective credit risk management is a structured process to assess, quantify, measure, monitor and manage risk on a consistent basis. This requires careful consideration of proposed extensions of credit, the setting of specific limits, monitoring during the life of the exposure, active use of credit mitigation tools and a disciplined approach to recognising credit impairment.

Credit limits are used to manage concentration to individual counterparties. A system of limits is also established to address concentration risk in the portfolio, including country limits, industry limits and limits for certain products. In addition, credit risk concentration is regularly supervised by credit and risk management committees, taking current market conditions and trend analysis into consideration. A credit quality review 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 where adverse changes in creditworthiness could occur.

Counterparty and transaction rating

CSi group employs a set of credit ratings for the purpose of internally rating counterparties to which it is exposed to credit risk as the contractual party. Credit ratings are intended to reflect the risk of default of each counterparty. Ratings are assigned based on internally-developed rating models and processes, which are subject to governance and internally-independent validation procedures.

CSi group's internal ratings may differ from counterparties external ratings where present. Policy requires the review of internal ratings at least annually. For the calculation of internal risk estimates and risk weighted assets, a probability of default ("**PD**") is assigned to each facility, with the PD determined by the internal credit rating. Internal ratings are based on the analysis and evaluation of both quantitative and qualitative factors. The specific factors analysed are dependent on the type of counterparty.

The analysis emphasises a forward- looking approach, concentrating on economic trends and financial fundamentals. Analysts make use of peer analysis, industry comparisons, external ratings and research, other quantitative tools and the judgement of credit experts. The PD for each rating is calibrated based on historical default experience, using external data from Standard & Poor's, and back-tested to ensure consistency with internal experience.

CSi group assigns an estimate of expected loss in the event of a counterparty default based on the structure of each transaction. The counterparty credit rating is used in combination with credit (or credit equivalent) exposure and the loss given default ("**LGD**") assumption to estimate the potential credit loss. LGD represents the expected loss on a transaction should default occur and takes into account structure, collateral, seniority of the claim and, in certain areas, the type of counterparty. CSi group uses credit risk estimates consistently for the purposes of approval, establishment and monitoring of credit limits and credit portfolio management, credit policy, management reporting and allocation and certain financial accounting purposes. This approach also allows us to price transactions involving credit risk more accurately, based on risk/return estimates. The Issuer has been granted permission by the PRA to use internal credit rating models under the CRD4 A-Internal Ratings Based ("**AIRB**") approach for the majority of credit exposures in the Issuer. Exposures which are not covered by AIRB treatment are subject to the standardised approach.

Credit risk overview

All transactions that are exposed to potential losses due to failure of meeting an obligation by counterparty are subject to credit risk exposure measurement and management.

Maximum exposure to credit risk

The following table presents the maximum exposure to credit risk of balance sheet and off-balance sheet financial instruments, before taking account of the fair value of any collateral held or other credit enhancements unless such credit enhancements meet offsetting requirements as set out in IAS 32. For financial assets recognised on the balance sheet the maximum exposure to credit risk equals their carrying amount as at 31 December 2018. For financial guarantees granted and other credit-related contingencies the maximum exposure to credit risk is the maximum amount that the Issuer would have to pay if the guarantees and contingencies are called upon. For loan commitments and other credit-related commitments that are irrevocable over the life of the respective facilities the maximum exposure to credit risk is the full amount of the committed facilities.

Maximum exposure to credit risk:

			Group			*Issuer*
2018 (USD million)	*Gross*	*Collateral*	*Net*	*Gross*	*Collateral*	*Net*
Maximum exposure to credit risk						
Trading financial assets mandatorily at fair value through profit or loss						
Debt securities	16,845	-	16,845	16,742	-	16,742
Derivative trading positions	124,434	117,245	7,189	124,516	117,245	7,271
Other	579	-	579	579	-	579
Non-trading financial assets mandatorily at fair value through profit or loss						
Loans	1,045	348	697	1,098	348	750
Reverse repurchase agreements	15,650	15,650	-	15,650	15,650	-
Other	964	-	964	964	-	964
Maximum exposure to credit risk – total assets	**159,517**	**133,243**	**26,274**	**159,549**	**133,243**	**26,306**
Off-balance sheet items						
Loan commitments and other credit related commitments	1,392	382	1,010	1,392	382	1,010
Maximum exposure to credit risk – total off-balance sheet	**1,392**	**382**	**1,010**	**1,392**	**382**	**1,010**

Maximum exposure to credit risk	**160,909**	**133,625**	**27,284**	**160,941**	**133,625**	**27,316**

The following table sets out information about the credit quality of financial assets measured at amortised cost. Unless specifically indicated, for financial assets, the amounts in the table represent gross carrying amounts. For loan commitments and financial guarantee contracts, the amounts in the table represent the amounts committed or guaranteed, respectively.

Cash and due from banks credit risk exposures by rating grades

					2018
Group In millions of USD	12-month ECL (Stage 1)	Lifetime ECL not credit-impaired (Stage 2)	Lifetime ECL credit-impaired (Stage 3)	Purchased credit-impaired	**Total**
AA+ to AA-	579	-	-	-	579
A+ to A-	1,475	-	-	-	1,475
BBB+ to BBB-	159	-	-	-	159
BB+ to BB-	16	-	-	-	16
B+ and below	-	-	-	-	-
Gross Carrying amount	**2,229**	**-**	**-**	**-**	**2,229**
Loss allowance	-	-	-	-	-
Net Carrying amount	**2,229**	**-**	**-**	**-**	**2,229**

The previous table applies to the Issuer also, with the exception of rating trades A+ to A- for which the 12 month ECL (Stage 1) balance is USD 1,442 million.

Interest bearing deposit with banks credit risk exposures by rating grades

					2018
Group and Issuer In millions of USD	12-month ECL (Stage 1)	Lifetime ECL not credit-impaired	Lifetime ECL credit-impaired	Purchased credit-impaired	**Total**

		(Stage 2)	(Stage 3)		
A+ to A-	17,859	-	-	-	17,859
Gross Carrying amount	**17,859**	**-**	**-**	**-**	**17,859**
Loss allowance	1	-	-	-	1
Net Carrying amount	**17,858**	**-**	**-**	**-**	**17,858**

Loan credit risk exposures by rating grades

					2018
Group and Issuer In millions of USD	12-month ECL (Stage 1)	Lifetime ECL not credit-impaired (Stage 2)	Lifetime ECL credit-impaired (Stage 3)	Purchased credit-impaired	**Total**
A+ to A-	372	-	-	-	372
BBB+ to BBB-	2,974	-	-	-	2,974
BB+ to BB-	4	-	-	-	4
B+ and below	154	12	8	-	174
Gross Carrying amount	**3,504**	**12**	**8**	**-**	**3,524**
Loss allowance	2	-	4	-	6
Net Carrying amount	**3,502**	**12**	**4**	**-**	**3,518**

Securities purchases under resale agreements and securities borrowing transactions credit risk exposures by rating grades

					2018
Group and Issuer In millions of USD	12-month ECL (Stage 1)	Lifetime ECL not credit-impaired (Stage 2)	Lifetime ECL credit-impaired (Stage 3)	Purchased credit-impaired	**Total**

A+ to A-	10,452	-	-	-	10,452
B+ and below	35	-	-	-	35
Gross Carrying amount	**10,487**	**-**	**-**	**-**	**10,487**
Loss allowance	-	-	-	-	-
Net Carrying amount	**10,487**	**-**	**-**	**-**	**10,487**

Other assets credit risk exposures by rating grades

					2018
Group and Issuer In millions of USD	12-month ECL (Stage 1)	Lifetime ECL not credit-impaired (Stage 2)	Lifetime ECL credit-impaired (Stage 3)	Purchased credit-impaired	**Total**
AA+ to AA-	1	-	-	-	1
A+ to A-	479	-	-	-	479
BBB+ to BBB-	8	-	-	-	8
BB+ to BB-	14	-	-	-	14
B+ and below	37	-	-	-	37
Gross Carrying amount	**539**	**-**	**-**	**-**	**539**
Loss allowance	2	-	-	-	2
Net Carrying amount	**537**	**-**	**-**	**-**	**537**

Financial guarantees credit risk exposures by rating grades

					2018
Group and Issuer In millions of USD	12-month ECL (Stage 1)	Lifetime ECL not credit-impaired (Stage 2)	Lifetime ECL credit-impaired (Stage 3)	Purchased credit-impaired	**Total**

BBB+ to BBB-	75	-	-	-	75
B+ and below	165	-	-	-	165
Gross Carrying amount	**240**	**-**	**-**	**-**	**240**
Loss allowance	3	-	-	-	3
Net Carrying amount	**237**	**-**	**-**	**-**	**237**

Loan commitment credit risk exposures by rating grades

					2018
Group and Issuer In millions of USD	12-month ECL (Stage 1)	Lifetime ECL not credit-impaired (Stage 2)	Lifetime ECL credit-impaired (Stage 3)	Purchased credit-impaired	**Total**
A+ to A-	846	-	-	-	846
BBB+ to BBB-	1,225	-	-	-	1,225
BB+ to BB-	154	-	-	-	154
B+ and below	714	29	-	-	743
Gross Carrying amount	**2,939**	**29**	**-**	**-**	**2,968**
Loss allowance	-	-	-	-	-
Net Carrying amount	**2,939**	**29**	**-**	**-**	**2,968**

			Group			*CSi*
2017 (USD million)	*Gross*	*Collateral*	*Net*	*Gross*	*Collateral*	*Net*
Maximum exposure to credit risk						
Cash and due from banks	4,971	-	4,971	4,932	-	4,932

Interest bearing deposits with banks	4,187	-	4,187	4,186	-	4,186
Securities purchased under resale agreements and securities borrowing transactions	17,052	3,139	13,913	17,052	3,139	13,913
Trading financial assets at fair value through profit or loss						
Debt securities	22,722	-	22,722	22,567	-	22,567
Derivative trading positions	144,364	120,430	23,934	144,364	120,430	23,934
Other	638	-	638	634	-	634
Financial assets designated at fair value through profit or loss						
Loans	1,320	596	724	1,612	596	1,016
Reverse repurchase agreements	8,488	-	8,488	8,489	-	8,489
Other	1,322	306	1,016	1,322	306	1,016
Net loans	3,331	95	3,236	3,331	95	3,236
Other assets	32,957	-	32,957	32,957	-	32,957
Maximum exposure to credit risk – total assets	**241,352**	**124,566**	**116,786**	**241,446**	**124,566**	**116,880**
Off-balance sheet items						
Financial guarantees	1,077	-	1,077	1,077	-	1,077
Loan commitments and other credit related commitments	7,677	3,135	4,542	7,677	3,135	4,542
Maximum exposure to	**8,754**	**3,135**	**5,619**	**8,754**	**3,315**	**5,619**

credit risk – total off-balance sheet						
Maximum exposure to credit risk	**250,106**	**127,701**	**122,405**	**250,200**	**127,701**	**122,499**

CSi group is exposed to credit risk as a result of a counterparty, borrower or issuer being unable or unwilling to honour its contractual obligations. These exposures to credit risk exist within financing relationships, derivatives and other transactions.

CSi group typically enters into master netting arrangements ("**MNAs**") with over the counter ("**OTC**") derivative counterparties. The MNAs allow CSi group to offset derivative liabilities against the derivative assets with the same counterparty in the event the counterparty defaults. Collateral on these derivative contracts comprises either cash or marketable securities or a combination thereof. Included in the table above as collateral and other credit enhancements are the derivative liability amounts which would be offset against the derivative asset position upon default of the counterparty as well as any cash or marketable securities collateral held. Amounts disclosed as collateral and credit enhancements are where a counterparty has an offsetting derivative exposure with CSi group, a legally enforceable MNA exists, and the credit risk exposure is managed on a net basis or the position is specifically collateralised, typically in the form of cash.

Also included in the table within both loans and receivables and financial assets designated at fair value through profit and loss is collateral which CSi group holds against loans in the form of guarantees, cash and marketable securities. CSi group also mitigates its credit exposures on certain loans primarily with credit default swaps, which economically hedge the position and as such the notional on the relevant credit default swap has been included. For further information on the collateral and credit enhancements held against loans designated at fair value, refer to "*Note 19 – Financial Assets and Liabilities Designated at Fair Value through Profit or Loss*" in "*Notes to the Financial Statements for the year ended 31 December 2018*" on pages 86 to 87 (pages 88 to 89 of the PDF file) of the 2018 CSi Annual Report (as defined in the CSi Registration Document).

Reverse repurchase agreements and securities borrowings are typically fully-collateralised instruments and in the event of default, the agreement provides CSi group the right to liquidate the collateral held. Reverse repos are included either within securities or financial assets designated at fair value through profit and loss, based on the accounting methodology. These instruments are collateralised principally by government securities, money market instruments, corporate bonds and cash. CSi group monitors the fair value of securities borrowed and lent on a daily basis with additional collateral obtained as necessary. The fair value of the collateral has been included in the table above. For further information on the collateral and credit enhancements held against reverse repurchase agreements and securities borrowing refer to "*Note 16 – Securities Borrowed, Lent and Purchased/Sold under Resale/Repurchase Agreements*" in "*Notes to the Financial Statements for the year ended 31 December 2018*" on page 84 (page 86 of the PDF file) of the 2018 CSi Annual Report (as defined in the CSi Registration Document).

Included within Other (Non-trading financial assets mandatorily at fair value through profit or loss) are failed purchases that arise when a transaction to purchase an asset has not met the conditions for sale accounting. CSi group typically holds collateral in the form of insurance or securities against the failed purchases.

Collateral held against financial guarantees and loan commitments typically includes securities and letters of credit. For further information about the collateral and credit enhancements held against financial guarantees and loan commitments refer to "*Note 39 – Guarantees and Commitments*" in "*Notes to the Financial Statements for the year ended 31 December 2018*" on pages 119 to 121 (pages 121 to 123 of the PDF file) of the 2018 CSi Annual Report (as defined in the CSi Registration Document).

For further information on collateral held as security that CSi group is permitted to sell or repledge refer to "*Note 42 –Assets Pledged or Assigned*" in "*Notes to the Financial Statements for the year ended 31 December 2018*" on pages 158 to 159 (pages 160 to 161 of the PDF file) of the 2018 CSi Annual Report (as defined in the CSi Registration Document).

If collateral or the credit enhancement value for a particular instrument is in excess of the maximum exposure then the value of collateral and other credit enhancements included in the table has been limited to the maximum exposure to credit risk.

Risk mitigation

The Issuer actively manages its credit exposure utilising credit hedges and monetiseable collateral (cash and marketable securities).

Credit hedges represent the notional exposure that has been transferred to other market counterparties generally through the use of credit default swaps. The Issuer also actively enters into collateral arrangements for OTC derivatives and other traded products which allow it to limit the counterparty exposure risk associated with these products. Collateral taken generally represents cash or government securities although other securities may be accepted. The value of collateral reflected as a risk mitigant is net of an appropriate haircut. Collateral securing loan transactions includes:

- Financial collateral pledged against loans collateralised by securities (mostly cash and marketable securities);
- Physical collateral (real estate property for mortgages, mainly retail residential, but also multi-family buildings, offices and commercial properties); and
- Other types of lending collateral such as accounts receivable, inventory and plant and equipment.

Counterparty exposure before collateral by rating

		2018		*2017*
	USD million	*%*	*USD million*	*%*
AAA	1,274	4	885	2
AA+ to AA-	7,441	23	8,406	22
A+ to A-	9,955	29	10,741	29
BBB+ to BBB-	9,108	28	10,657	28
BB+ to BB-	1,713	5	3,194	9
B+ and below	3,461	11	3,682	10
	32,952	**100**	**37,565**	**100**

Unsecured exposure by rating (including provisions)

	2018		2017	
	USD million	*%*	*USD million*	*%*
AAA	153	1	455	3
AA+ to AA-	3,465	25	3,471	24
A+ to A-	3,837	29	3,540	25
BBB+ to BBB-	3,170	23	3,084	21
BB+ to BB-	721	5	1,435	10
B+ and below	2,298	17	2,452	17
	13,644	**100**	**14,437**	**100**

The previous tables include all loans, commitments, derivatives, securities purchased and sold under repurchase and resale agreements, and short term cash trades on a net counterparty exposure basis for the Issuer.

The first table represents mark to market exposures before offsetting any eligible collateral held; the second table represents mark to market exposures after offsetting collateral.

Credit approval and reviews

A primary responsibility of Credit Risk Management ("**CRM**") is the approval of new counterparty trading relationships and the subsequent on-going review of the creditworthiness of the client. Part of the review and approval process involves the consideration of the motivation of the client and the directional nature of the trading in which the client is engaged. Credit limits are sized to the level of comfort the CRM officer has with the strategy of the counterparty, the level of disclosure of financial information and the amount of risk mitigation that is present in the trading relationship (e.g. level of collateral).

Wrong-way risk ("WWR")

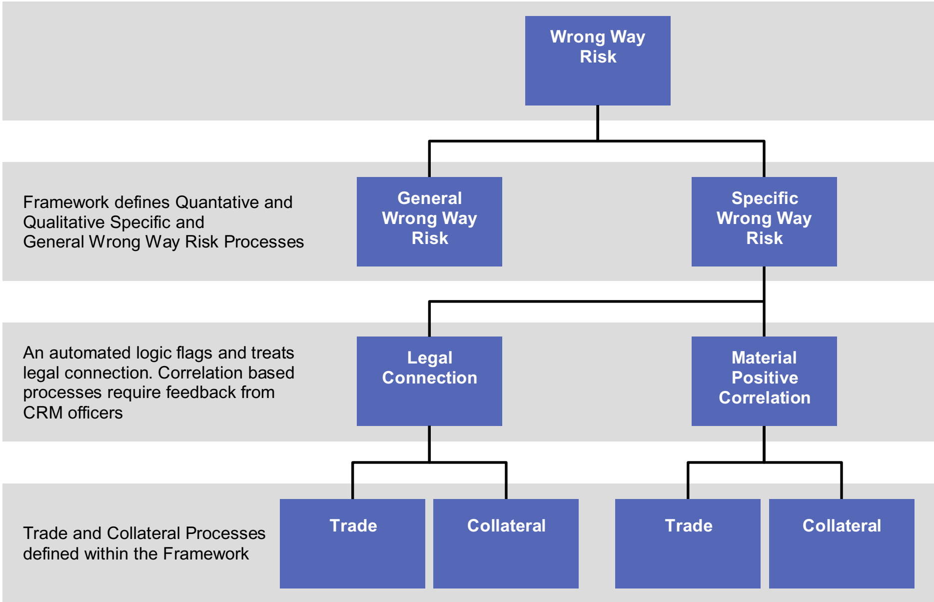
Wrong-way exposures

In a wrong-way trading situation, the Issuer's exposure to the counterparty increases while the counterparty's financial health and its ability to pay on the transaction diminishes. Capturing WWR requires the establishment of basic assumptions regarding correlations within a given trading product. The Issuer has multiple processes that allow it to capture and estimate WWR.

Exposure adjusted risk calculation

WWR can arise from different business relationships.

An exposure methodology based on jump to default assumptions, ineligibility of collateral or scenario-based add-ons is in place to identify and adjust exposures for all WWR types as per the distinction in the table below.



With respect to general WWR, a scenario-based exposure add-on is applied to those counterparties identified following the quantitative and qualitative review from Credit Officers where the Basel III exposure is not deemed sufficient to capture the additional risk fully.

WWR monitoring

Regular reporting of WWR at both the individual trade and portfolio level allows WWR to be monitored and corrective action taken by CRM in the case of heightened concern. Transactions containing WWR due to legal connection are automatically flagged and included in regular reporting. General WWR and transactions containing specific WWR due to correlation are flagged to CRM officers for confirmation and then included into regular reporting. The outcome of the WWR identification process is subject to monthly review from the UK CRM management team via a regular forum.

Settlement risk

Settlement risk arises whenever the settlement of a transaction results in timing differences between the disbursement of cash or securities and the receipt of counter-value from the counterparty. This risk arises whenever transactions settle on a 'free of payment' basis and is especially relevant when operating across time zones.

In those instances where market convention and/or products preclude a value-for-value exchange, CSi group manages its risk through confirmation and affirmation of transaction details with counterparties. In order to reduce gross settlement risk, CSi group leverages clearing houses, central counterparties and central settlement services and will also net gross cash flows with a given counterparty where possible. The CSi group proactively seeks to manage the timing of settlement instructions to agents and the reconciliation of incoming payments in order to reduce the window of exposure. In addition, CRM establishes and monitors limits to control the amount of settlement risk incurred to each counterparty.

(v) **Country Risk**

Country risk is the risk of a substantial, systemic loss of value in the financial assets of a country or group of countries, which may be caused by dislocations in the credit, equity and/or currency markets. CSi CRM has incorporated country limits into its Credit Risk Appetite Framework in order to mitigate this risk in the Issuer.

For the Issuer, country limits are set for both developed and emerging markets, based on a potential future exposure view and on a scenario view respectively. Upon CSi CRM recommendation, maximum appetite and operational limits are calibrated and approved by the Issuer's Risk Management Committee (the "**CSi RMC**") on an annual basis or, if warranted by a fundamental change in strategy or market conditions, more frequently.

The measurement of exposures against country limits is reported to CSi CRM dedicated teams and senior management. Front Office representatives are responsible for ensuring limits are respected and any breach is promptly managed. CRM provide independent oversight to ensure that businesses operate within their limits. During the course of the year, reserves are available to CSi CCO and the CSi CRO in case a temporary or permanent limit increase is needed and justified from a risk/return perspective. More fundamental changes to the country risk profile of the firm necessitate discussions and approval by the CSi RMC.

(vi) **Legal (including regulatory) risk**

The Group is subject to legal risks in its businesses. Legal risks include, among other things, the risk of litigation (for example, as a result of mis-selling claims); disputes (for example, over the terms of legacy trades); the inadequacy of transaction documentation (for example, ambiguous terms); unenforceability (for example, of security arrangements); uncertainty with respect to applicable laws and regulations (including change in laws or regulations); and employee disputes. Some of these risks result in claims against the firm which the firm defends, settles or results in actual litigation that, in each case, the Group may incur legal expenses to defend.

The Group assesses its legal risk and manages it through a combination of controls, including the adoption of policies, the implementation of processes and the use of systems, continuing to refine controls as business activities evolve and the laws that the Group is subject to change. One of the key controls is the involvement of the General Counsel function and engagement of outside legal counsel. In addition, the Group is an active participant in a number of key industry and other professional market forums including the International Swaps and Derivatives Association ("**ISDA**") and the Association for Financial Markets in Europe ("**AFME**").

As a participant in the financial services industry, the Group is subject to extensive regulation by governmental agencies, supervisory authorities and self-regulatory organisations around the world. Such regulation is increasingly more extensive and complex in its application, in particular, as laws increasingly purport to be extra-territorial and additional obligations may arise where clients are subject to differing regulatory obligations, in practice, requiring the Group to be compliant with such obligations also. These regulations may increase the costs of doing existing business for both the firm and its clients, including the application of increased capital, leverage and liquidity requirements, customer protection and market conduct regulations and direct or indirect restrictions on the businesses in which the Group may operate. Such requirements can have a negative effect on the Group's business and ability to implement strategic initiatives.

The financial services industry continues to be affected by significant complexity of ongoing regulatory reforms, alongside more recently, the significant impact of the firm's planning for a 'Hard Brexit'. Changes in laws, rules or regulations, or in their interpretation or enforcement, or the implementation of new laws, rules or regulations, may adversely affect the Group.

(vii) **Operational and compliance 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

Operational risk is inherent in most aspects of the Issuer's business, including the systems and processes that support its 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 unauthorised transactions. Operational risk can arise from human error, inappropriate conduct, failures in systems, processes and controls, deliberate attack or natural and man-made disasters.

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 the Group serves. 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.

Enterprise Risk & Control Framework

To effectively manage operational and compliance risks, the Group-wide Enterprise Risk & Control Framework ("**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 harmonise 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, standardised Group-wide role descriptions define the responsibilities for identifying, assessing, reporting and managing risks across the organisation. 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 Issuer 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:

Governance and policies are fundamental to 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. The Group utilises 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 defence 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 the quarterly CARMC meetings of the internal control system cycle and at legal entity operational risk and compliance management committees, 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 standardised 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.

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 most significant risks and associated key controls. The Group utilises 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 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, analyse and report data on operational and compliance risk incidents to ensure that the Group understands the reasons why they occurred and how controls can be improved to reduce the risk of future incidents. The Group focuses both on incidents that result in economic losses and on events that provide information on potential control gaps, even if no losses occurred. The Group also collects and utilises 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 legal entity. 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:

- **RCSAs** 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 ERCF risk taxonomy classifying risks under a standardised 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 utilise 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 assist 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, legal entity and Group-wide review and mitigating actions are identified as appropriate. The results of the compliance risk assessment are presented to the CSG Board and Audit Committee, and the Issuer's Board of Directors.

- **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 defence.

Top ERCF risks are identified at the legal entity level 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. Further, the compliance and regulatory responses function consolidates and monitors issues and actions Group-wide including audit, regulatory, self-identified and second line identified issues and actions. The operational risk incident management component includes a defined process for identifying, categorising, 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 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 unauthorised 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. **Operational risk regulatory capital** is based on the Business Indicator Approach which for the internal capital adequacy assessment process is supplemented by internal models and scenario analysis. 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.

Transfer of operational risk to third-party insurance companies

In addition to managing and mitigating operational risks under the ERCF through business- and risk-related processes and organisation, the Group also transfers the risk of potential loss from certain operational risks to third-party insurance companies in certain instances.

(viii) **Conduct risk**

Credit Suisse globally defines conduct risk as the risk that improper behaviour or judgement by our employees results in negative financial, non-financial or reputational impact to our clients, employees, the Issuer, and the integrity of the markets.

Some conduct risks are inherent in our business and negatively impact our clients, employees, the market or competition, and can arise from a variety of causes including failed processes, product design, business set-up, execution of organisational change, or as unintended consequences of business decisions. The Group applies conduct risk across the Issuer's Risk Register to identify potential conduct risks and evaluate conduct breaches that have occurred. In line with our overall risk management model, all staff are responsible for assessing and managing the conduct risks inherent in the activities they undertake.

The Issuer seeks to promote good behaviour and conduct through the Code of Conduct, which provides a clear statement of the ethical values and professional standards as a basis for maintaining and strengthening its reputation for integrity, fair dealing and measured risk-taking, and the set of business conduct behaviours. In addition, the Conduct and Ethics Standards further embed clear expectations of Credit Suisse's employees to ensure that the right things are done in the right way.

The Code of Conduct and the set of Conduct and Ethics Standards are linked to the Issuer's employee performance assessment and compensation processes.

(ix) **Technology risk**

Technology risk deserves particular attention given the complex technological landscape that covers the Issuer's business model. Ensuring that confidentiality, integrity and availability of information assets are protected is critical to its operations. Technology risks are managed through the Issuer's technology risk management program, business continuity management plan and business contingency and resiliency plans. Technology risks feature as part of the Issuer's 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.

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 the Group's 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. The Group seeks 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. The Group requires its critical IT systems to be identified, secure, resilient and available and support its ongoing operations, decision making, communications and reporting. The Group's systems must also have the capability, capacity, scalability and adaptability to meet current and future business objectives, the needs of its customers and regulatory and legal expectations. Failure to meet these standards and requirements may result in adverse events that could subject the Group to reputational damage, fines, litigation, regulatory sanctions, financial losses or loss of market share.

Cyber risk, which is part of technology risk, is the risk that the Issuer will be compromised as a result of cyber attacks, security breaches, unauthorised 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 the Issuer to litigation or cause the Issuer to suffer a financial loss, a disruption of its businesses, liability to its clients, regulatory intervention or reputational damage. The Issuer could also be required to expend significant additional resources to modify its protective measures or to investigate and remediate vulnerabilities or other exposures.

While the Group has not experienced any major impactful cyber incidents, the Group recognises that cyber risk represents a rapidly evolving, and generally worsening, external risk landscape in terms of the capabilities and intent of those seeking to exploit weaknesses in the global financial system, where we might be targeted or simply suffer unintended collateral damage. The financial industry continues to face cyber threats from a variety of actors who are driven by monetary, political and other motivations. The Group actively monitors external incidents and threats and assesses and responds accordingly to any potential vulnerabilities that this may reveal. The Group is also an active participant in industry forums and information exchange initiatives and engages in regulatory consultation on the topic.

The Group has an enterprise-wide Cybersecurity Strategy to provide strategic guidance to achieve an optimised end-to-end security and risk competence that enables a secure and innovative business environment, aligned with the bank's risk appetite.

The Group Technology Security Team in IT leverages a wide array of leading technology solutions and industry best practice (e.g. NIST) to maintain a secure perimeter and detect and respond to threats in real time.

The Group regularly assesses the effectiveness of its key controls and the Group conducts ongoing employee training and awareness activities, including for key management personnel, in order to embed a strong cyber risk culture. Within the wider ERCF, senior management are given increasingly quantitative pictures of the broader technology risk exposure and of progress in those areas identified as Top Operational Risks.

Senior management (including the Issuer's Board Risk Committee) are actively engaged and regularly updated on the extent of the threat, the mitigations in place to counter this threat, and the business continuity and response plans in place to manage cyber incidents. These recovery and response business continuity plans are rehearsed regularly at all levels, up to and including the Issuer's Board of Directors. Significant incidents are escalated to the Issuer's Board of Directors level together with lessons learned and mitigation plans.

(x) **Reputational risk**

The Issuer highly values its reputation and is fully committed to protecting it through a prudent approach to risk-taking, and responsible approach to business. This is achieved through use of dedicated processes, resources and policies focused on identifying, evaluating, managing and reporting potential reputational risks. This is also achieved through applying the highest standards of personal accountability and ethical conduct as set out in the Group's Code of Conduct, and the firm's approach to conduct and ethics.

The Issuer acknowledges that as a large global financial institution, with a wide range of businesses and stakeholders, it may be subject to general criticism or negative perception from time to time which may negatively impact its reputation.

The Issuer also acknowledges that it will knowingly engage in specific activities where opinions may vary depending on the perspective and standpoint of each party, and which may lead to negative perception from some stakeholders.

In both these cases, the Issuer accepts reputational risk only where the Group can justify at the time decisions are taken that:

- The activity is in line with our stated Code of Conduct, and Conduct and Ethics Standards; and
- Informed judgement is exercised in line with our internal sector policies and thematic guidelines, including region specific concerns or mitigation, where applicable.

The Issuer has no appetite for engaging in activity that exposes the Group to reputational risk where these conditions are not met.

The Issuer has adopted the Global Policy on Reputational Risk which states that each employee is responsible for assessing the potential reputational impact of all businesses in which they engage, and for determining whether any actions or transactions should be formally submitted through the Reputational Risk Review Process ("**RRRP**") for review.

Reputational risk may arise from a variety of sources, including, but not limited to, the nature or purpose of a proposed transaction, action or client relationship, the identity or nature of a potential client, the regulatory or political climate in which the business will be transacted or significant public attention surrounding the transaction itself.

The Issuer's Board of Directors has delegated reputational risk issues to be reviewed via the Issuer's global RRRP which includes an overview of the transaction or action being considered, the risks identified and relevant mitigating factors and views from internal subject matter experts. All formal submissions in the RRRP require review by the UK Senior Manager in the relevant division, and assuming they are supportive of the proposal are then subsequently referred to one of the Issuer's Reputational Risk Approvers ("**RRA**"), each of whom is independent of the business divisions and has the authority to approve, reject, or impose conditions on the Issuer's participation. If the RRA considers there to be a material reputational risk associated with a submission, it is escalated to the Issuer's Reputational Risk Committee (the "**Committee**") for further discussion, review and final decision. The Committee is comprised of senior Issuer entity management across divisions and corporate functions.

Reputational risk is assessed on an entity based approach whereby the region of the RRRP submission is driven by the location of the booking entity. Where a submission relates to a Remote Booking, a submission will be made through to EMEA RRRP and the RRAs in other regions will be consulted as appropriate, which may include escalation to the relevant regional committee.

(c) **Risks relating to regulatory action in the event that the Issuer is failing or the UK resolution authority considers that it is likely to fail**

If the Issuer were to become subject to the use of "resolution" measures by a resolution authority (or pre-resolution measures), you could lose some or all of your investment in certain securities issued by the Issuer

The EU Bank Recovery and Resolution Directive ("**BRRD**") entered into force on 2 July 2014. Its stated aim is to provide national "resolution authorities" (such as the Bank of England in the UK) with a set of powers and tools to deal with financial institutions that are failing or likely to fail and thereby address banking crises pre-emptively in order to safeguard financial stability and minimise taxpayers' exposure to losses incurred by EU financial institutions.

In the United Kingdom, the majority of the requirements of the BRRD have been implemented into national law through amendments to the Banking Act 2009 (the "**UK Banking Act**") (and associated statutory instruments). The UK implementation of the BRRD included the introduction into the UK Banking Act of the so-called "bail-in" tool (as described below) as of 1 January 2015 and the requirement for relevant financial institutions to meet, at all times, a minimum requirement for own funds and eligible liabilities as of 1 January 2016.

The UK Banking Act provides for a "resolution regime" granting substantial powers to the Bank of England (acting as "resolution authority") (or, in certain circumstances, HM Treasury), in consultation with the PRA, the FCA and HM Treasury, as appropriate, to implement resolution measures with respect to a UK financial institution (such as the Issuer) where the PRA considers that the relevant institution is failing or is likely to fail and action is necessary in the public interest and the Bank of England considers that the other conditions to implementing resolution measures have been satisfied, namely that: (i) having regard to timing and other relevant circumstances, it is not reasonably likely that (ignoring its resolution powers) action will be taken by or in respect of the bank that will result in the bank to be no longer failing or likely to fail, and (ii) that certain public interest conditions are met.

The resolution powers available to the Bank of England include powers to:

- direct the sale of the relevant institution or the whole or part of its business and assets to a third party purchaser without requiring the consent of the shareholders or complying with the procedural requirements that would otherwise apply (the "transfer tool");
- transfer all or part of the business of the relevant institution to a "bridge bank" (which will be a publicly controlled entity) (the "bridge bank tool");
- transfer the impaired or problem assets of the relevant institution to an asset management vehicle to allow them to be managed over time (the "asset management vehicle tool"); and
- exercise the "bail-in" tool (as discussed below), which could result in a write down of the amount owing or conversion of the relevant security (which may be an unsecured note, warrant or certificate issued by the relevant institution) to equity.

Alternatively, as a last resort, HM Treasury is given powers, subject to meeting certain further public interest conditions, to take the relevant institution into temporary public ownership (i.e. nationalisation).

The "bail-in" tool (as discussed below) may be used together with any of the transfer tool, the bridge bank tool or the asset management vehicle tool (or such tools may be used in any combination).

The UK Banking Act also gives powers to the Bank of England to take certain "pre-resolution" measures, which may include mandatory write-down of regulatory capital or conversion of regulatory capital to equity prior to the implementing of any resolution measures when the bank has reached a point of non-viability and subject to certain conditions.

In addition, the UK Banking Act grants powers to the Bank of England to:

- modify contractual arrangements (such as the terms and conditions of unsecured notes, warrants and certificates issued by the relevant institution) in certain circumstances;
- suspend enforcement or termination rights that might be invoked as a result of the exercise of the resolution powers (e.g. suspending acceleration and enforcement rights under unsecured notes, warrants and certificates issued by the relevant institution); and
- disapply or modify laws in the UK (with possible retrospective effect) to enable the recovery and resolution powers under the UK Banking Act to be used effectively.

Prospective purchasers of securities issued by the Issuer (including unsecured notes, warrants and certificates) should be aware that the exercise of any resolution power, any pre-resolution measures or even the suggestion of their potential exercise could materially adversely affect the value of any such securities, and could lead to holders of such securities losing some or all of their investment. The resolution regime and the pre-resolution powers are designed to be triggered prior to insolvency of the relevant institution, and holders of securities issued by such institution may not be able to anticipate the exercise of any resolution power (including exercise of the "bail-in" tool described below) by the Bank of England. Holders of securities issued by an institution which has been taken into a resolution regime or which are subject to pre-resolution measures will have very limited rights to challenge the exercise of powers by the Bank of England, even where such powers have resulted in the write down or conversion of such securities to equity. Further, notwithstanding that the Issuer is an unlimited company and, as a result, upon its liquidation its creditors have a right of recourse against the Issuer's shareholders, holders of securities issued by the Issuer may not be able to benefit from such recourse if the Issuer becomes subject to the exercise of any resolution power or pre-resolution power or if such power is exercised in a manner which prevents its liquidation (or otherwise changes the nature of the insolvency procedure to which the Issuer may ultimately become subject).

The exercise by the UK resolution authority of the "bail-in" tool (or pre-resolution powers to write down or convert regulatory capital) in relation to securities issued by the Issuer would result in the write down and/or conversion to equity of such securities

In addition to the other powers described above, the Bank of England may exercise the "bail-in" tool in relation to a failing UK financial institution. The "bail-in" tool includes the powers to:

- write down to zero (i.e. cancel) a liability or modify its terms for the purposes of reducing or deferring the liabilities of the relevant institution; and/or
- convert a liability from one form or class to another (e.g. from debt to equity).

The Bank of England is also empowered to take certain "pre-resolution" actions which may include mandatory write-down of regulatory capital or conversion of regulatory capital to equity prior to the implementing of any resolution measures which may have a similar effect to the use of the "bail in" tool but would apply only in relation to certain regulatory capital meeting certain conditions.

The exercise of the "bail-in" or similar pre-resolution powers could result in (A) the cancellation of all, or a portion, of the principal amount of, interest on, or any other amounts payable on, any unsecured notes, warrants or certificates issued by the Issuer, and/or (B) the conversion of all or a portion of the principal amount of, interest on, or any other amounts payable on, such securities into shares or other securities or other obligations of the Issuer or another person, and/or (C) the amendment of the maturity of such securities or the amount of interest or any other amount payable on such securities or the date on which such interest or other amount becomes payable (including by suspending payment for a temporary period), including by means of a variation to the terms of the securities, in each case, to give effect to the exercise by the Bank of England of such powers.

The purpose of the "bail-in" tool and the pre-resolution powers in relation to regulatory capital is to enable the Bank of England to recapitalise an institution by allocating losses to its shareholders and unsecured creditors (which could include the holders of unsecured notes, warrants or certificates issued by such institution) in a manner that (1) respects the hierarchy of claims in an ordinary insolvency and (2) is consistent with shareholders and creditors not receiving a less favourable treatment than they would have received in ordinary insolvency proceedings of the relevant institution (known as the "no creditor worse off" safeguard).

Insured deposits and secured liabilities and certain other liabilities are excluded from the scope of the "bail-in" tool. Further, as part of the reforms required by the BRRD, other deposits will be preferred in the insolvency hierarchy ahead of all other unsecured senior creditors of a UK institution.

The exercise of any resolution power, including the "bail-in" tool (or any pre-resolution powers in relation to regulatory capital), in respect of the Issuer and any securities issued by it or any suggestion of any such exercise could materially adversely affect the rights of the holders of such securities, the value of their investment in such securities and/or the ability of the Issuer to satisfy its obligations under such securities, and could lead to the holders of such securities losing some or all of their investment in such securities. In addition, even in circumstances where a claim for compensation is established under the 'no creditor worse off' safeguard in accordance with a valuation performed after the resolution action has been taken, it is unlikely that such compensation would be equivalent to the full losses incurred by the holders of such securities in the resolution, and there can be no assurance that holders of such securities would recover such compensation promptly.

Holders of securities issued by the Issuer may not be able to anticipate the exercise of the "bail-in" tool, any resolution power or any pre-resolution measure to reduce or convert regulatory capital

The resolution powers are intended to be exercised pre-emptively – i.e. prior to the point at which insolvency proceedings with respect to the relevant institution would be initiated – in order to resolve the institution and protect the public interest. Accordingly, the resolution powers may be exercised if:

(i) the PRA is satisfied that a relevant institution is failing, or is likely to fail;

(ii) having consulted the PRA, the FCA and HM Treasury, the Bank of England determines that it is not reasonably likely that (ignoring the stabilisation powers) action will be taken by or in respect of the relevant institution that will result in condition (i) above ceasing to be met within a reasonable timeframe;

(iii) having consulted the PRA, the FCA and HM Treasury, the Bank of England considers that the exercise of the stabilisation powers is necessary, having regard to certain public interest considerations (such as, for example, the stability of the UK financial system, public confidence in the UK banking system and the protection of depositors); and

(iv) the Bank of England considers that the special resolution objectives would not be met to the same extent by the winding-up of the relevant institution.

The use of different stabilisation powers is subject to further "specific conditions" that vary according to the relevant stabilisation power being used. Additional conditions will apply where the Bank of England seeks to exercise its powers in relation to UK banking group companies.

It is uncertain how the Bank of England would assess such conditions in different pre-insolvency scenarios affecting the relevant institution. The Bank of England is also not required to provide any advanced notice to holders of securities of the relevant institution of its decision to exercise any resolution power. Therefore, holders of the securities (such as unsecured notes, warrants and certificates) issued by the Issuer may not be able to anticipate a potential exercise of any such powers nor the potential effect of any such exercise on the Issuer and any such securities.

Holders of securities of an institution subject to the exercise of the "bail-in" tool or other resolution power may have only very limited rights to challenge the exercise of such power

Holders of securities of an institution subject to the exercise of the "bail-in" tool or other resolution power may have only very limited rights to challenge any decision of the Bank of England to exercise such power or to have that decision judicially reviewed. Further, the Bank of England would be expected to exercise such powers without the consent of the holders of the affected securities.

Prospective investors should assume that the UK government would not provide extraordinary public financial support, or if it did, only as a last resort after the bail-in tool or other resolution tools have been utilised

Provided that certain conditions are satisfied, the UK government may provide extraordinary public financial support in relation to a failing UK financial institution by providing capital to such financial institution in exchange for Common Equity Tier 1 instruments, Additional Tier 1 instruments or Additional Tier 2 instruments, or by taking such financial institution into temporary public ownership (i.e. nationalisation). However, prospective purchasers of securities issued by the Issuer (including unsecured notes, warrants and certificates) should assume that any such additional financial stabilisation tool(s) would only be used (if at all) as a last resort after having assessed and exploited the other resolution tools (e.g. the bail-in tool, as described above) to the maximum extent practicable.

(d) **The UK's decision to leave the EU**

The United Kingdom is expected to formally withdraw its membership from the EU.

The Issuer has prepared for a "Hard Exit" scenario. On exit the Issuer will be required to transfer, subject to certain exceptions, its EU client and EU venue facing businesses to entities in the EU27 as the Issuer may not be able to legally transact with EU clients after the UK exit. The Group executed a Group-wide plan and has built out trading capabilities in locations in existing companies within the Group. In the event that these business transfers are necessary:

- the Issuer would transfer its EU client and EU venue facing broker-dealer business to a member of the Group incorporated in Spain, Credit Suisse Securities Sociedad de Valores S.A. ("**CSSSV**"). Under these circumstances, new in scope business would be transacted and booked in CSSSV from the date that the UK leaves the EU and thereafter; and
- the Issuer would transfer its EU client lending business activities where required, to Credit Suisse (Deutschland) AG ("**CSD**"). Under these circumstances, most of the existing loans to EU domiciled clients would be transferred to CSD in a controlled migration.

The Issuer currently has branches in Amsterdam, Stockholm, Madrid and Milan. The businesses in the Amsterdam, Stockholm and Milan branches may be transferred to newly set up branches of CSSSV in the Netherlands, Sweden and Italy respectively. the Issuer Madrid branch may transfer its business to CSSSV.

3. Risks relating to the Securities generally

(a) **Potential loss of some or all of the investment**

Purchasers of Securities which are "capital at risk" investments may lose some or all of their money depending on the performance of the relevant Underlying Asset(s) and the terms of such Securities. The Securities will be "capital at risk" investments unless the Final Redemption Amount payable at maturity or a scheduled early redemption (or, in respect of Instalment Securities, the aggregate of the Instalment Amounts payable over the Instalment Dates, together with the Redemption Amount, if any) (as applicable) of the relevant Securities is at least equal to the purchase price paid by investors for such Securities.

Even where the Final Redemption Amount (or, in respect of Instalment Securities, the aggregate of the Instalment Amounts payable over the Instalment Dates, together with the Redemption Amount, if any) (as applicable) is at least equal to the purchase price paid by investors for such Securities, the Securities are still "capital at risk" investments if:

(i) the terms of the Securities provide for a mandatory automatic early redemption event to be applicable, such mandatory automatic early redemption event occurs and the amount payable is less than the purchase price; or

(ii) if the terms of the Securities provide that the Issuer's call option or holder's put option, as the case may be, is applicable, such call option or put option, as the case may be, is exercised and the Optional Redemption Amount is less than such purchase price.

Where Securities are "capital at risk" investments, investors are exposed to a return that is linked to the performance of the relevant Underlying Asset(s) (as specified in the relevant Pricing Supplement), and may lose the value of some or all of their investment.

In any event, if the amount payable (or entitlement deliverable) on redemption, exercise or expiry of the Securities is less than the purchase price paid by investors for such Securities, investors may lose some or all of their investment.

Even if the particular Securities are not "capital at risk" and do provide for scheduled repayment in full of the issue price or the purchase price of the Securities, investors are still exposed to the credit risk of the Issuer and will lose up to the entire value of their investment if the Issuer either fails or is otherwise unable to meet its payment obligations. The Securities are not deposits, and are not covered by any deposit insurance or protection scheme.

Further, as explained at the start of this section, even if the Securities are not "capital at risk" and do provide for scheduled repayment in full of the issue price or the purchase price of the Securities, an investor could still lose some or all of his or her investment if:

- the investor sells the Securities prior to maturity in the secondary market but for an amount that is less than the issue price or the purchase price of the Securities;
- the Securities are redeemed early under their terms and conditions at the discretion of the Issuer and the Early Redemption Amount is less than the initial issue price or purchase price (see risk factor 3(h) (*In certain circumstances, the Issuer may redeem the Securities (other than due to a mandatory automatic early redemption event) prior to their scheduled maturity. The Early Redemption Amount payable on such early redemption may be less than the issue price or the purchase price and investors may therefore lose some or all of their investment and may not be able to reinvest the proceeds in another investment offering a comparable return*) below); or
- the Securities are subject to certain adjustments made by the Issuer in accordance with the terms and conditions of the Securities that may result in any amount payable (or deliverable) under the Securities (whether at maturity or otherwise) being reduced to, or being valued at, an amount that is less than the original investment.

(b) **Limited liquidity**

A secondary market for the Securities may not develop and if one does develop, it may not provide the holders of the Securities with liquidity or may not continue for the life of the Securities. A decrease in the liquidity of the Securities may cause, in turn, an increase in the volatility associated with the price of such Securities. Illiquidity may have a severe adverse effect on the market value of the Securities.

The Issuer may, but is not obliged to, purchase the Securities at any time at any price in the open market or by tender or private treaty and may hold, resell or cancel them. The market for the Securities may be limited. The only way in which a Securityholder can realise value from a Security prior to its maturity or expiry is to sell it at its then market price in the market which may be less than the amount initially invested. The price in the market for a Security may be less than its Issue Price even though the value of the Underlying Asset(s) may not have changed since the Issue Date. Further, the price at which a Securityholder sells its Securities in the market may reflect a commission or a dealer discount, which would further reduce the proceeds such Securityholder would receive for its Securities. If a Securityholder sells its Securities prior to the Maturity Date or the Settlement Date, as the case may be, it may suffer a substantial loss.

Any secondary market price quoted by the Issuer may be affected by several factors including, without limitation, prevailing market conditions, credit spreads and the remaining time to maturity of the Securities. The Securities are also subject to selling restrictions and/or transfer restrictions that may limit a Securityholder's ability to resell or transfer its Securities. Accordingly, the purchase of Securities is suitable only for investors who can bear the risks associated with a lack of liquidity in the Securities and the financial and other risks associated with an investment in the Securities. Any investor in the Securities must be prepared to hold such Securities for an indefinite period of time or until redemption or expiry of the Securities.

(c) **No obligation to maintain listing**

Investors should note that where the Securities are listed on the TOKYO PRO-BOND Market, the Issuer will not be obliged to maintain the listing of the Securities in certain circumstances, such as a change in listing requirements.

If the regulated market or other market in respect of which the Securities are listed and/or admitted to trading closes, or if the relevant regulated market in respect of which the Securities are admitted to trading is replaced with a market that is not a regulated market, the Issuer may de-list the Securities or may (but is not obliged to) consent to the Securities to be admitted to trading on such replacement market instead. In the event that there is a delay or break between the listing of the Securities on the original market or regulated market, as the case may be, and the listing of the Securities on the replacement market, there may be a negative impact on the Securities (for example this may negatively impact the liquidity of the Securities and the ability of the Securityholders to sell the Securities).

(d) **The Issue Price may be more than the market value of the Securities**

The Issue Price in respect of any Securities specified in the relevant Pricing Supplement may be more than the market value of such Securities as at the Issue Date, and more than the price, if any, at which the Dealer or any other person is willing to purchase such Securities in secondary market transactions. In particular, the Issue Price in respect of any Securities and the terms of such Securities may take into account, where permitted by law, fees, commissions or other amounts relating to the issue, distribution and sale of such Securities, or the provision of introductory services. Such fees, commissions or other amounts may be paid directly to the relevant distributor or, if the Securities are sold to the relevant distributor at a discount, may be retained by the relevant distributor out of the Issue Price paid by investors. In addition, the Issue Price in respect of the Securities and the terms of such Securities may also take into account (i) the expenses incurred by the Issuer in creating, documenting and marketing the Securities (including its internal funding costs) and (ii) amounts relating to the hedging of the Issuer's obligations under such Securities.

(e) **The market value of the Securities will be affected by many factors and cannot be predicted**

The market value of the Securities will be affected by many factors beyond the control of the Issuer, including, but not limited to, the following:

(i) the creditworthiness of the Issuer (whether actual or perceived), including actual or anticipated downgrades in its credit rating;

(ii) the remaining time to maturity of the Securities;

(iii) interest rates and yield rates in the relevant market(s);

(iv) the volatility (i.e., the frequency and size of changes in the value) of the Underlying Asset(s) (if any);

(v) the value of the Underlying Asset(s) to which the Securities are linked (if any);

(vi) if the Securities are linked to a Share, the dividend rate on such Share or if the Securities are linked to an Index, the dividend rate on the components underlying such Index;

(vii) if the Securities are linked to a Share, the occurrence of certain corporate events in relation to such Share;

(viii) national and international economic, financial, regulatory, political, military, judicial and other events that affect the value of the Underlying Asset(s) or the relevant market(s) generally; and

(ix) the exchange rate(s) between the currency in which the Securities are denominated and the currency in which the Underlying Asset(s) is denominated and the volatility of such exchange rate(s).

Some or all of the above factors will influence the value of and return on the Securities in the market. Some of these factors are inter-related in a complex way, and as a result, the effect of any one factor may be offset or magnified by the effect of another factor. If you sell your Securities prior to maturity or expiry, the price you will receive may be substantially lower than the original purchase price and you may lose some or all of your investment.

(f) **The market value of the Securities may be highly volatile**

Where the Securities reference any Underlying Asset(s), the Securityholders are exposed to the performance of such Underlying Asset(s). The price, performance or investment return of the Underlying Asset(s) may be subject to sudden and large unpredictable changes over time and this degree of change is known as "volatility". The volatility of an Underlying Asset may be affected by national and international economic, financial, regulatory, political, military, judicial or other events, including governmental actions, or by the activities of participants in the relevant markets. Any of these events or activities could adversely affect the value of and return on the Securities.

(g) **Over-issuance of Securities by the Issuer**

The total size of Securities being issued on the issue date may be greater than the amount subscribed or purchased by investors as the dealer may retain some of the Securities as part of its issuing, market-making and/or trading arrangements or for the purposes of meeting future investor demand. The issue size of the Securities should not be regarded as indicative of the depth or liquidity of the market, or the demand, for the Securities.

(h) **In certain circumstances, the Issuer may redeem the Securities (other than due to a mandatory automatic early redemption event) prior to their scheduled maturity. The Early Redemption Amount payable on such early redemption may be less than the issue price or the purchase price and investors may therefore lose some or all of their investment and may not be able to reinvest the proceeds in another investment offering a comparable return**

The Securities may be redeemed prior to their scheduled maturity in certain circumstances (other than due to a mandatory automatic early redemption event) - for example, (i) if the Issuer determines that its obligations under the Securities or its hedging arrangements have become unlawful or illegal, (ii) following an event of default, or (iii) where the Securities are linked to one or more Underlying Asset(s), following certain events having occurred in relation to any Underlying Asset(s). In such case, the Securities may be redeemed early prior to their scheduled maturity for an amount equal to the Early Redemption Amount. Please refer to the section headed "Overview of the Potential for Discretionary Determinations by the Issuer" for more information.

The Early Redemption Amount payable on unscheduled redemption of the Securities depends on the elections specified in the relevant Pricing Supplement.

(i) **In certain circumstances, the Issuer may adjust the terms of the Securities, and such adjustment may have a negative effect on the value of the Securities**

If the Issuer determines that any adjustment events or other events affecting (i) the Underlying Asset(s), or (ii) (depending on the terms of the Securities) the Issuer's hedging arrangements have occurred, the Issuer may adjust the terms and conditions of the Securities (including substituting an Underlying Asset) without the consent of the Securityholders.

In making any such adjustment, the Issuer will (whether or not already expressed to be the case in the Conditions) act in good faith and in a commercially reasonable manner, and (where there is a corresponding applicable regulatory obligation) shall take into account whether fair treatment is achieved by any such adjustment in accordance with its applicable regulatory obligations. Please refer to the section headed "Overview of the Potential for Discretionary Determinations by the Issuer" for more information.

Nevertheless, any such adjustment could have a material adverse effect on the return on, and value of, the Securities

(j) **Tax risks**

Potential investors in the Securities should take note of the information set out in the section headed "Taxation". Potential investors in the Securities should conduct such independent investigation and analysis regarding the tax treatment of the Securities as they deem appropriate to evaluate the merits and risks of an investment in the Securities in light of their individual circumstances. Tax risks include, without limitation, a change in any applicable law, treaty, rule or regulation or the interpretation thereof by any relevant authority which may adversely affect payments in respect of the Securities. The level and basis of taxation on the Securities and on the Securityholders and any reliefs from such taxation depend on the Securityholder's individual circumstances and could change at any time. The tax and regulatory characterisation of the Securities may change over the life of the Securities. This could have adverse consequences for Securityholders. Potential Securityholders will therefore need to consult their own tax advisers to determine the specific tax consequences of the purchase, ownership, transfer and redemption, exercise or expiry or enforcement of the Securities.

(k) **Proposed Financial Transaction Tax**

The European Commission has published a proposal (the "**Commission's Proposal**") for a Directive for a common financial transaction tax ("**FTT**") which is currently being considered by Belgium, Germany, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia (the "**participating Member States**").

The Commission's Proposal has very broad scope and could, if introduced, apply to certain dealings in the Securities (including secondary market transactions) in certain circumstances. Primary market transactions referred to in Article 5(c) of Commission Regulation (EC) No 1287/2006 are expected to be exempt.

Under the Commission's Proposal the FTT could apply in certain circumstances to persons both within and outside of the participating Member States. Generally, it would apply to certain dealings in the Securities where at least one party is a financial institution, and at least one party is established in a participating Member State. A financial institution may be, or be deemed to be, "established" in a participating Member State in a broad range of circumstances, including (i) by transacting with a person established in a participating Member State or (ii) where the financial instrument which is subject to the dealings is issued in a participating Member State.

Given the lack of agreement on the implementation of the above form of the FTT, France and Germany presented a joint position paper in January 2019 (the "**Position Paper**") to help progress the negotiations. The Position Paper proposes a French style FTT at a rate of at least 0.20 per cent. which would, it seems, only be imposed when there is a transfer of ownership of shares of a listed company whose head office is in a participating Member State, and whose market capitalisation exceeds EUR 1 billion. If that proposal is adopted and not extended to derivatives, then the FTT may only apply to physical settlement with such shares.

However, these proposals remain subject to negotiation between participating Member States. They may therefore be altered prior to any implementation, the timing of which remains unclear. Additional EU Member States may decide to participate.

Prospective investors in Securities are advised to seek their own professional advice in relation to the FTT.

(l) **Issue of further Securities**

If additional securities or options with the same terms and conditions or linked to the same Underlying Asset(s) as the Securities are subsequently issued, either by the Issuer or another issuer, the supply of securities with such terms and conditions or linked to such Underlying Asset(s) in the primary and secondary markets will increase and may cause the secondary market price of the Securities to decline.

(m) **Risk of cancellation of issue of Securities**

The Issuer may determine to cancel the issue of Securities for reasons beyond its control, such as extraordinary events, substantial change of the political, financial, economic, legal, monetary or market conditions at national or international level and/or adverse events regarding the financial or commercial position of the Issuer and/or the other relevant events that in the determination of the Issuer may be prejudicial to the issue of the Securities. In such case, where an investor has already paid or delivered subscription monies for the relevant Securities, the investor will be entitled to reimbursement of such amounts, but will not receive any interest that may have accrued in the period between their payment or delivery of subscription monies and the reimbursement of the amount paid for such Securities.

(n) **The terms and conditions of the Securities may be modified without the consent of Securityholders**

The terms and conditions of the Securities may be modified without the consent of Securityholders for the purposes of (i) curing any ambiguity or correcting or supplementing any provision if the Issuer determines it to be necessary or desirable, provided that such modification is not prejudicial to the interests of Securityholders, or (ii) correcting a manifest error.

(o) **Risks relating to the Euro and the Euro zone**

The ongoing deterioration of the sovereign debt of several countries, in particular Greece, together with the risk of contagion to other, more stable, countries, such as France and Germany, has raised a number of uncertainties regarding the stability and overall standing of the European Economic and Monetary Union and may result in changes to the composition of the Euro zone.

Concerns persist regarding the risk that other Euro zone countries could be subject to an increase in borrowing costs and could face an economic crisis similar to that of Cyprus, Greece, Ireland, Italy, Spain and Portugal, together with the risk that some countries could leave the Euro zone (either voluntarily or involuntarily). The impact of these events on Europe and the global financial system could be severe and could have a negative impact on the Securities.

Furthermore, concerns that the Euro zone sovereign debt crisis could worsen may lead to the reintroduction of national currencies in one or more Euro zone countries or, in more extreme circumstances, the possible dissolution of the Euro entirely. The departure or risk of departure from the Euro by one or more Euro zone countries and/or the abandonment of the Euro as a currency could have major negative effects on the Issuer and the Securities (including the risks of currency losses arising out of redenomination). Should the Euro dissolve entirely, the legal and contractual consequences for holders of Euro-denominated Securities would be determined by laws in effect at such time. These potential developments, or market perceptions concerning these and related issues, could adversely affect the value of the Securities. It is difficult to predict the final outcome of the Euro zone crisis. Investors should carefully consider how changes to the Euro zone may affect their investment in the Securities.

(p) **There are particular risks in relation to Securities denominated in or referencing CNY**

Chinese Renminbi, the lawful currency of the People's Republic of China ("**CNY**") is not freely convertible at present. The government of the People's Republic of China continues to regulate conversion between CNY and foreign currencies despite the significant reduction over the years by such government of its control over routine foreign exchange transactions conducted through current accounts. The People's Bank of China ("**PBOC**") has established a clearing and settlement system pursuant to the Settlement Agreement on the Clearing of CNY Business between PBOC and Bank of China (Hong Kong) Limited. However, the current size of CNY and CNY denominated financial assets in Hong Kong is limited, and its growth is subject to many constraints imposed by the laws and regulations of the People's Republic of China on foreign exchange.

No assurance can be given that access to CNY funds for the purposes of making payments under the Securities or generally will remain available or will not become restricted. The value of CNY against foreign currencies fluctuates and is affected by changes in the People's Republic of China and international political and economic conditions and by many other factors. As a result, foreign exchange fluctuations between a purchaser's home currency and CNY may affect purchasers who intend to convert gains or losses from the sale or redemption of the Securities into their home currency.

Developments and the perception of risks in other countries, especially emerging market countries, may adversely affect the exchange rate CNY with other currencies and therefore the value of Securities denominated in or referencing CNY.

4. Risks associated with certain types of Securities and certain product features

(a) **Optional redemption by the Issuer**

Any call option of the Issuer in respect of the Securities may negatively impact their market value. During any period when the Issuer may elect to redeem Securities, the market value of those Securities generally will not rise substantially above the price at which they can be redeemed. This may also be true prior to any redemption period. The Issuer may be expected to redeem Securities when its cost of borrowing is lower than the interest rate on the Securities. At those times, an investor generally would not be able to reinvest the redemption proceeds at an effective interest rate as high as the interest rate on the Securities being redeemed. The investor will not be able to participate in the performance of the Underlying Asset(s) following the effective date of the Issuer call option.

(b) **A "Participation" factor of over 100 per cent. means that you may participate disproportionately in the performance of the Underlying Asset(s)**

Where the terms and conditions of the Securities provide that the Redemption Amount or settlement amount or other amount payable (as applicable) in respect of such Securities is based upon the performance of the Underlying Asset(s) and is multiplied by a "Participation" factor which is over 100 per cent., the Securityholder may participate disproportionately in any positive performance and/or may have a disproportionate exposure to any negative performance of the Underlying Asset(s). Due to this leverage effect, such Securities will represent a very speculative and risky form of investment since any loss in the value of the Underlying Asset(s) carries the risk of a correspondingly higher loss.

(c) **A "Participation" factor of less than 100 per cent. means that you will not participate in the full positive performance of the Underlying Asset(s)**

Where the terms and conditions of the Securities provide that the Redemption Amount or settlement amount or other amount payable (as applicable) in respect of such Securities is based upon the performance of the Underlying Asset(s) and is multiplied by a "Participation" factor which is less than 100 per cent., the Securityholder will not participate fully in the performance (whether positive or negative) of the Underlying Asset(s). In such case, the return on the Securities will be disproportionately lower than any positive performance of the Underlying Asset(s), and may be significantly less than if the Securityholder had purchased the Underlying Asset(s) directly.

(d) **The effect of averaging**

If so provided in the applicable terms and conditions of the Securities, the amount payable (or deliverable) on the Securities (whether at maturity or otherwise) will be based on the average of the applicable levels, prices, rates or other applicable values of the Underlying Asset(s) on each of the specified averaging dates, and not the simple performance of the Underlying Asset(s) over the term of the Securities. For example, if the applicable level, price, rate or other applicable value of the particular Underlying Asset(s) dramatically surged on the last of five averaging dates, the amount payable on the Securities may be significantly less than it would have been had the amount payable been linked only to the applicable level, price, rate or other applicable value of the particular Underlying Asset(s) on that last averaging date.

(e) **'Worst-of'**

Where the Securities are linked to a basket of Underlying Assets and the terms of the Securities provide that the Final Redemption Amount or other amount payable (as applicable) in respect of such Securities depends on the performance of the worst performing Underlying Asset in the basket, Securityholders will be exposed to the performance of each Underlying Asset and, in particular, to the Underlying Asset which has the worst performance.

This means that, irrespective of how the other Underlying Assets perform, if any one or more Underlying Assets fail to meet the specified threshold or barrier, Securityholders could lose some or all of their initial investment.

(f) **Cap**

Where the terms of the Securities provide that the amount payable or deliverable is subject to a cap, your ability to participate in any change in the value of the Underlying Asset(s) (or any change in floating interest rates) will be limited, no matter how much the level, price or other value of the Underlying Asset(s) (or floating interest rates) rises above the cap level over the term of the Securities. Accordingly, the value of or return on the Securities may be significantly less than if Securityholders had purchased the Underlying Asset(s) (or invested in instruments which pay an uncapped floating rate of interest) directly.

(g) **Interest rate risks**

Where Securities bear interest at a fixed rate, subsequent changes in market interest rates may adversely affect the value of the Securities.

Where interest on Securities is subject to floating rates of interest that will change subject to changes in market conditions, such changes could adversely affect the interest amount(s) received on the Securities. As the interest income on Securities which bear interest at a floating rate will vary, it is not possible to determine a fixed yield on such Securities at the time of investment and to compare the return on investment of such Securities with investments bearing interest at a fixed rate. If the terms and conditions of the Securities provide for frequent interest payment dates, a Securityholder may only be able to reinvest the interest amount(s) paid to it at the prevailing interest rates, which may be lower if market interest rates decline. Further, if the floating rate becomes negative, the resulting rate of interest on the Securities may be less than any positive margin specified to be applicable to the floating rate, or may be zero (or such other minimum rate of interest), as specified in the relevant Pricing Supplement.

(h) **Emerging market risks**

An Underlying Asset may include an exposure to emerging markets. Emerging market countries possess one or more of the following characteristics: a certain degree of political instability, relatively unpredictable financial markets and economic growth patterns, a financial market that is still at the development state or a weak economy. Emerging markets investments usually result in higher risks such as event risk, political risk, economic risk, credit risk, currency rate risk, market risk, regulatory/legal risk and trade settlement, processing and clearing risks as further described below. Investors should note that the risk of occurrence and the severity of the consequences of such risks may be greater than they would otherwise be in relation to more developed countries.

(i) *Event Risk*: On occasion, a country or region will suffer an unforeseen catastrophic event (for example, a natural disaster) which causes disturbances in its financial markets, including rapid movements in its currency, that will affect the value of securities in, or which relate to, that country. Furthermore, the performance of an Underlying Asset can be affected by global events, including events (political, economic or otherwise) occurring in a country other than that in which such Underlying Asset is issued or traded.

(ii) *Political Risk*: Many emerging market countries are undergoing, or have undergone in recent years, significant political change which has affected government policy, including the regulation of industry, trade, financial markets and foreign and domestic investment. The relative inexperience with such policies and instability of these political systems leave them more vulnerable to economic hardship, public unrest or popular dissatisfaction with reform, political or diplomatic developments, social, ethnic, or religious instability or changes in government policies. Such circumstances, in turn, could lead to a reversal of some or all political reforms, a backlash against foreign investment, and possibly even a movement away from a market-oriented economy. For Securityholders, the results may include confiscatory taxation, exchange controls, compulsory re-acquisition, nationalisation or expropriation of foreign-owned assets without adequate compensation or the restructuring of particular industry sectors in a way that could adversely affect investments in those sectors. Any perceived, actual or expected disruptions or changes in government policies of a country, by elections or otherwise, can have a major impact on the performance of an Underlying Asset linked to such emerging market countries.

(iii) *Economic Risk*: The economies of emerging market countries are by their nature in early or intermediate stages of economic development, and are therefore more vulnerable to rising interest rates and inflation. In fact, in many emerging market countries, high interest and inflation rates are the norm. Rates of economic growth, corporate profits, domestic and international flows of funds, external and sovereign debt, dependence on international trades and sensitivity to world commodity prices play key roles in economic development, yet vary greatly from one emerging market country to another. Businesses and governments in these emerging market countries may have a limited history of operating under market conditions. Accordingly, when compared to more developed countries, businesses and governments of emerging market countries are relatively inexperienced in dealing with market conditions and have a limited capital base from which to borrow funds and develop their operations and economies. In addition, the lack of an economically feasible tax regime in certain countries poses the risk of sudden imposition of arbitrary or excessive taxes, which could adversely affect foreign Securityholders. Furthermore, many emerging market countries lack a strong infrastructure and banks and other financial institutions may not be well-developed or well-regulated. All of the above factors, as well as others, can affect the proper functioning of the economy and have a corresponding adverse effect on the performance of an Underlying Asset linked to one or more emerging market countries.

(iv) *Credit Risk*: Emerging market sovereign and corporate debt tends to be riskier than sovereign and corporate debt in established markets. Issuers and obligors of debt in these emerging market countries are more likely to be unable to make timely coupon or principal payments, thereby causing the underlying debt or loan to go into default. The sovereign debt of some countries is currently in technical default and there are no guarantees that such debt will eventually be restructured allowing for a more liquid market in that debt. The measure of a company's or government's ability to repay its debt affects not only the market for that particular debt, but also the market for all securities related to that company or country. Additionally, evaluating credit risk for foreign bonds involves greater uncertainty because credit rating agencies throughout the world have different standards, making comparisons across countries difficult. Many debt securities are simply unrated and may already be in default or considered distressed. There is often less publicly available business and financial information about foreign issuers in emerging market countries than those in developed countries. Furthermore, foreign companies are often not subject to uniform accounting, auditing and financial reporting standards. Also, some emerging market countries may have accounting standards that bear little or no resemblance to, or may not even be reconcilable with, generally accepted accounting principles.

(v) *Currency Risk*: An Underlying Asset may be denominated in a currency other than U.S. dollars, euro or pounds sterling. The weakening of a country's currency relative to the U.S. dollar or other benchmark currencies will negatively affect the value (in U.S. dollar or such other benchmark currency) of an instrument denominated in that currency. Currency valuations are linked to a host of economic, social and political factors and can fluctuate greatly, even during intra-day trading. It is important to note that some countries have foreign exchange controls which may include the suspension of the ability to exchange or transfer currency, or the devaluation of the currency. Hedging can increase or decrease the exposure to any one currency, but may not eliminate completely exposure to changing currency values.

(vi) *Market Risk*: The emerging equity and debt markets of many emerging market countries, like their economies, are in the early stages of development. These financial markets generally lack the level of transparency, liquidity, efficiency and regulation found in more developed markets. It is important, therefore, to be familiar with secondary market trading in emerging markets securities and the terminology and conventions applicable to transactions in these markets. Price volatility in many of these markets can be extreme. Price discrepancies can be common as can market dislocation. Additionally, as news about a country becomes available, the financial markets may react with dramatic upswings and/or downswings in prices during a very short period of time. These emerging market countries also might not have regulations governing manipulation and insider trading or other provisions designed to "level the playing field" with respect to the availability of information and the use or misuse thereof in such markets. It may be difficult to employ certain risk management practices for emerging markets securities, such as forward currency exchange contracts, stock options, currency options, stock and stock index options, futures contracts and options on futures contracts.

(vii) *Regulatory/Legal Risk*: In emerging market countries there is generally less government supervision and regulation of business and industry practices, stock exchanges, over- the-counter markets, brokers, dealers and issuers than in more developed countries. Whatever supervision is in place may be subject to manipulation or control. Many emerging market countries have mature legal systems which are comparable to those of more developed countries, whilst others do not. The process of regulatory and legal reform may not proceed at the same pace as market developments, which could result in confusion and uncertainty and, ultimately, increased investment risk. Legislation to safeguard the rights of private ownership may not yet be in place in certain areas, and there may be the risk of conflict among local, regional and national requirements. In certain areas, the laws and regulations governing investments in securities may not exist or may be subject to inconsistent or arbitrary application or interpretation and may be changed with retroactive effect. Both the independence of judicial systems and their immunity from economic, political or nationalistic influences remain largely untested in many countries. Judges and courts in many countries are generally inexperienced in the areas of business and corporate law. Companies are exposed to the risk that legislatures will revise established law solely in response to economic or political pressure or popular discontent. There is no guarantee that a foreign Securityholder would obtain a satisfactory remedy in local courts in case of a breach of local laws or regulations or a dispute over ownership of assets. A Securityholder may also encounter difficulties in pursuing legal remedies or in obtaining and enforcing judgments in foreign courts.

(viii) *Trade Settlement, Processing and Clearing*: Many emerging market countries have different clearance and settlement procedures from those in more developed countries. For many emerging markets securities, there is no central clearing mechanism for settling trades and no central depository or custodian for the safekeeping of securities. Custodians can include domestic and foreign custodian banks and depositaries, among others. The registration, record-keeping and transfer of Securities may be carried out manually, which may cause delays in the recording of ownership. Where applicable, the Issuer will settle trades in emerging markets securities in accordance with the currency market practice developed for such transactions by the Emerging Markets Traders Association. Otherwise, the transaction may be settled in accordance with the practice and procedure (to the extent applicable) of the relevant market. There are times when settlement dates are extended, and during the interim the market price of any Underlying Assets and in turn the value of the Securities, may change. Moreover, certain markets have experienced times when settlements did not keep pace with the volume of transactions resulting in settlement difficulties. Because of the lack of standardised settlement procedures, settlement risk is more prominent than in more mature markets. In addition, Securityholders may be subject to operational risks in the event that Securityholders do not have in place appropriate internal systems and controls to monitor the various risks, funding and other requirements to which Securityholders may be subject by virtue of their activities with respect to emerging market securities.

(i) **Occurrence of Additional Disruption Events**

Additional Disruption Events in respect of an Underlying Asset may include events which result in the Issuer incurring material costs for performing its obligations under the Securities due to a change in applicable law or regulation, the inability or a materially increased cost of the Issuer and/or its affiliates to maintain or enter into hedging arrangements in respect of such Underlying Asset and the Securities. Subject to the terms and conditions for the Securities which determines the types of Additional Disruption Events which are applicable, upon determining that an Additional Disruption Event has occurred, the Issuer has discretion to make certain determinations to account for such event including to (i) make adjustments to the terms of the Securities (without the consent of the Securityholders), or (ii) cause an early redemption of the Securities prior to their scheduled maturity by payment of an Early Redemption Amount instead of the Final Redemption Amount, any of such determinations may have an adverse effect on the value of and return on the Securities. Following a determination by the Issuer in accordance with

(ii) no other amounts shall be payable in respect of the Securities on account of interest or otherwise.

In making any such adjustments or determinations, the Issuer in such capacity will (whether or not already expressed to be the case in the Conditions) act in good faith and in a commercially reasonable manner, and (where there is a corresponding applicable regulatory obligation) shall take into account whether fair treatment is achieved by any such adjustments or determinations in accordance with its applicable regulatory obligations.

Please refer to the section headed "Overview of the Potential for Discretionary Determinations by the Issuer" for more information.

5. Risks associated with Securities that are linked to Underlying Asset(s)

(a) Past performance of an Underlying Asset is not a reliable indicator of future performance

Any information about the past performance of an Underlying Asset at the time of the issuance of the Securities should not be regarded as a reliable indicator of the range of, or trends in, fluctuations in such Underlying Asset that may occur in the future. The level, price, rate or other applicable value of an Underlying Asset (and of components comprising such Underlying Asset) may go down as well as up throughout the term of the Securities. Such fluctuations may affect the value of and return on the Securities. There can be no assurance as to the future performance or movement of any Underlying Asset. Accordingly, before investing in the Securities, investors should carefully consider whether any investment linked to one or more relevant Underlying Assets is suitable for them.

(b) No rights of ownership in an Underlying Asset

Potential investors in the Securities should be aware that the Securities are unsecured obligations of the Issuer and that an Underlying Asset will not be held by the Issuer for the benefit of the Securityholders of such Securities and, as such, Securityholders will have no rights of ownership, including, without limitation, any voting rights, any rights to receive dividends or other distributions or any other rights with respect to any Underlying Asset referenced by such Securities.

(c) Exposure to currency risks

Investors may be exposed to currency risks because (i) an Underlying Asset may be denominated or priced in currencies other than the currency in which the Securities are denominated, or (ii) the Securities and/or such Underlying Asset may be denominated in currencies other than the currency of the country in which the investor is resident. The value of the Securities may therefore increase or decrease as a result of fluctuations in those currencies.

(d) Substitute dividend and dividend equivalent payments

Under section 871(m) of the United States Internal Revenue Code of 1986 (the "**Code**") and regulations thereunder, a payment on a financial instrument that references a U.S. equity or an index that includes a U.S. equity may be treated as a "dividend equivalent" payment. Such payments generally will be subject to U.S. withholding tax at a rate of 30 per cent. If withholding applies, the Issuer will not pay any additional amounts with respect to amounts withheld. The relevant Pricing Supplement may indicate if the Issuer has determined that a Security is a transaction subject to withholding under section 871(m). Although the Issuer's determination generally is binding on holders, it is not binding on the United States Internal Revenue Service (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. Holders should consult their tax advisors regarding the U.S. federal income tax consequences to them of section 871(m) and regulations thereunder, and whether payments or deemed payments on the Securities constitute dividend equivalent payments.

(e) **Correction of published prices or levels**

In the event that the relevant published prices or levels of an Underlying Asset are subsequently corrected and such correction is published by the entity or sponsor responsible for publishing such prices or levels, subject to such correction and publication occurring prior to a specified cut-off date in respect of the relevant Securities, such corrected prices or levels may be taken into account by the Issuer in any determination in relation to the Securities and/or the Issuer may make adjustments to the terms of the Securities, subject to the provisions of the relevant terms and conditions for the Securities. Where such corrected prices or levels are lower than the original levels or prices, this may have an adverse effect on the value of and return on the Securities.

(f) **Non-Underlying Asset Days or disruption events may adversely affect the value of and return on the Securities**

If a scheduled date on which the price or level of an Underlying Asset is observed or determined falls on a day which is not a day which is subject to adjustment in accordance with the relevant Asset Terms, then the relevant date may be postponed.

Any such postponement may adversely affect the value of and return on the Securities. In the event that one or more scheduled dates on which the price or level of an Underlying Asset is observed or determined are postponed, the scheduled Maturity Date, Settlement Date or other relevant payment date may also be postponed.

(g) **Risks associated with Securities linked to a basket of Underlying Assets**

The following are particular risks associated with Securities linked to a basket of Underlying Assets:

(i) *If the basket constituents are highly correlated, any move in the performance of the basket constituents will exaggerate the impact on the value of the Securities*: Correlation of basket constituents indicates the level of interdependence among the individual basket constituents with respect to their performance. If, for example, all of the basket constituents originate from the same sector and the same country, a high positive correlation may generally be assumed. Past rates of correlation may not be determinative of future rates of correlation. Investors should be aware that, though basket constituents may not appear to be correlated based on past performance, they may nevertheless suffer the same negative performance following a general downturn.

(ii) *The negative performance of a single basket constituent may outweigh a positive performance of one or more other basket constituents*: Even in the case of a positive performance by one or more of the basket constituents, the performance of the basket as a whole may be negative if the performance of one or more of the other basket constituents is negative to a greater extent, depending on the terms and conditions of the relevant Securities.

(iii) *A small basket, or an unequally weighted basket, will generally leave the basket more vulnerable to changes in the value of any particular basket constituent*: The performance of a basket that includes a fewer number of basket constituents will generally be more affected by changes in the value of any particular basket constituent than a basket that includes a greater number of basket constituents.

(iv) *A change in composition of a basket may have an adverse effect on basket performance*: Where the terms and conditions of the Securities grant the Issuer the right, in certain circumstances, to adjust the composition of the basket, investors should be aware that any replacement basket constituent may perform differently from the original basket constituent, which may have an adverse effect on the performance of the basket and therefore the performance of the Securities.

(h) **Risks associated with physical delivery of Underlying Asset(s)**

In order to receive the relevant Share Amount in respect of a Security, a Securityholder must deliver to a Paying Agent a duly completed Delivery Notice on or before the Presentation Date, otherwise the Issuer shall not be obliged to make delivery of the Share Amount. The Securityholder is also required to pay all taxes and expenses in connection with the delivery of the Share Amount (if any). Further, Securityholders may be subject to certain documentary or stamp taxes in relation to the delivery and/or disposal of the relevant Underlying Asset.

(i) **Regulation and reform of certain published rates, indices and other values or "benchmarks" may adversely affect the value of and return on Securities linked to such rates, indices, values or "benchmarks"**

A number of major interest rates, other rates, indices and other published values or benchmarks are the subject of recent or forthcoming national and international regulatory reforms. These reforms may cause such benchmarks to perform differently than in the past, to disappear entirely, or have other consequences which cannot be predicted. Any such consequence could have a material adverse effect on the value of and return on Securities linked to any such value or benchmark.

The Benchmark Regulation

The EU Regulation on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the "**Benchmark Regulation**") is a key element of the ongoing regulatory reform in the EU and has applied, subject to certain transitional provisions, since 1 January 2018. In addition to so-called "critical benchmarks" such as the London Interbank Offered Rate ("**LIBOR**") and the Euro Interbank Offered Rate ("**EURIBOR**"), other interest rates, foreign exchange rates, and indices, including equity, commodity and "proprietary" indices or strategies, will in most cases be within scope of the Benchmark Regulation as "benchmarks" where they are used to determine the amount payable under, or the value of, certain financial instruments (including Securities listed on an EU regulated market or EU multilateral trading facility (MTF)), and in a number of other circumstances.

The Benchmark Regulation applies to the contribution of input data to a benchmark, the administration of a benchmark, and the use of a benchmark in the EU. Amongst other things, the Benchmark Regulation requires EU benchmark administrators to be authorised or registered as such and to comply with extensive requirements relating to benchmark administration. It also prohibits certain uses by EU supervised entities of (i) benchmarks provided by EU administrators which are not authorised or registered in accordance with the Benchmark Regulation and (ii) benchmarks provided by non-EU administrators where (A) the administrator's regulatory regime has not been determined to be "equivalent" to that of the EU, (B) the administrator has not been recognised in accordance with the Benchmark Regulation, and (C) the benchmark has not been endorsed in accordance with the Benchmark Regulation.

The Benchmark Regulation could have a material impact on Securities linked to a benchmark. For example:

(A) if the amount(s) payable under the Securities is determined by reference to one or more Reference Rates and the relevant administrator does not obtain authorisation or registration (subject to applicable transitional provisions), then applicable fallbacks may apply in respect of the Securities including that they may be redeemed prior to maturity; and

(B) the methodology or other terms of the benchmark could be changed in order to comply with the requirements of the Benchmark Regulation, and such changes could reduce or increase the rate or level or affect the volatility of the published rate or level, and could lead to adjustments to the terms of the Securities, including Calculation Agent determination of the rate or level in its discretion.

Reform and replacement of Interbank Offered Rates

Amongst other developments, relevant authorities are strongly encouraging the transition away from Interbank Offered Rates ("**IBORs**"), such as LIBOR and EURIBOR, and have identified "risk free rates" to eventually take the place of such IBORs as primary benchmarks. This includes (i) for sterling LIBOR, a reformed Sterling Overnight Index Average ("**SONIA**"), so that SONIA may be established as the primary sterling interest rate benchmark by the end of 2021, (ii) for EONIA and EURIBOR, a new Euro Short-Term Rate (ESTER) as the new euro risk-free rate, and (iii) for USD LIBOR, the Secured Overnight Financing Rate (SOFR) to be eventually established as the primary U.S. dollar interest rate benchmark. The risk free rates have a different methodology and other important differences from the IBORs they will eventually replace and have little, if any, historical track record. It is not known whether certain IBORs will continue long-term in their current form.

The reforms and eventual replacement of IBORs with risk free rates may cause the relevant IBOR to perform differently than in the past, to disappear entirely, or have other consequences which cannot be predicted. The replacement risk free rate may have little, if any, historical track record and may be subject to changes in its methodology. Any of these developments could have a material adverse effect on the value of and return on Securities linked to any such rates.

(j) **Risks associated with Floating Rate Securities**

Floating Rate Securities differ from Fixed Rate Securities in that the interest income on Floating Rate Securities cannot be anticipated. Due to varying interest income, it is not possible to determine a definite yield for Floating Rate Securities at the time of investment, so that the potential return on investment cannot be compared to the return of investments paying fixed interest. If the terms and conditions of the Securities provide for frequent interest payment dates, investors will be exposed to reinvestment risk if market interest rates decline, as they may only be able to reinvest the interest income paid at the lower interest rates then prevailing. See also risk factors 5(i) (*Regulation and reform of certain published rates, indices and other values or "benchmarks" may adversely affect the value of and return on Securities linked to such rates, indices, values or "benchmarks"*) and 5(k) (*Risks associated with reference rates by reference to which any amount payable under the Notes is determined).*

(k) **Risks associated with reference rates by reference to which any amount payable under the Securities is determined**

The amount(s) payable under the Securities may be determined by reference to one or more reference rates, such as the Floating Rate Option used to determine the Rate of Interest in respect of Floating Rate Securities, the Rate of Premium for Securities in respect of which a premium is payable, or any other index, benchmark or price source by reference to which any amount payable under the Securities is determined. A reference rate (i) may be materially modified, (ii) may be permanently or indefinitely discontinued or may cease to exist, (iii) may not be used in certain ways by an EU supervised entity if its administrator does not obtain authorisation or registration (subject to applicable transitional provisions), (iv) may be subject to market-wide development and replaced with another rate, or (v) may be subject to any other relevant event that constitutes a "Benchmark Trigger Event" in the ISDA Benchmark Supplement (see risk factor 5(i) (*Regulation and reform of certain published rates, indices and other values or "benchmarks" may adversely affect the value of and return on Securities linked to such rates, indices, values or "benchmarks"*)).

(l) **It may not be possible to use the Securities as a perfect hedge against the market risk associated with investing in the Underlying Asset(s)**

It may not be possible to use the Securities as a perfect hedge against the market risk associated with investing in the Underlying Asset(s) and there are complexities of using the Securities in this manner. For example, the value of the Securities may not exactly match the value of the Underlying Asset(s). Due to fluctuating supply and demand for the Securities, there is no assurance that the value of the Securities will match changes in the value of the Underlying

Asset(s). It may also not be possible to purchase or sell the Securities at the prices used to calculate the value of the Underlying Asset(s).

(m) **There may be regulatory consequences to Securityholders holding Securities linked to an Underlying Asset**

There may be regulatory and other consequences associated with the holding by certain Securityholders of Securities linked to an Underlying Asset. Each prospective investor must conduct its own investigations into its regulatory position with respect to a potential investment in the Securities or consult advisers as it considers appropriate.

6. Risks associated with Securities that are linked to one or more particular types of Underlying Assets

(a) **Risks associated with Shares**

(i) *Factors affecting the performance of Shares may adversely affect the value of Securities*

The performance of Shares is dependent upon macroeconomic factors, such as interest and price levels on the capital markets, currency developments, political factors as well as company-specific factors such as earnings position, market position, risk situation, shareholder structure and distribution policy.

(ii) *Actions by the issuer of a Share may adversely affect the Securities*

The issuer of a Share will have no involvement in the offer and sale of the Securities and will have no obligation to any Securityholders. The issuer of a Share may take any actions in respect of such Share without regard to the interests of the Securityholders, and any of these actions could adversely affect the market value of and return on the Securities.

(iii) *Determinations made by the Issuer in respect of Potential Adjustment Events and Extraordinary Events may have an adverse effect on the value of the Securities*

The adjustment events referred to in risk factor 3(i) include, in respect of Shares, Potential Adjustment Events and Extraordinary Events (as defined below). Potential Adjustment Events include (A) a sub-division, consolidation or re-classification of Shares, (B) an extraordinary dividend, (C) a call of Shares that are not fully paid-up, (D) a repurchase by the Share issuer, or an affiliate thereof, of the Shares, (E) a separation of rights from Shares or (F) any event having a dilutive or concentrative effect on the value of Shares. The Extraordinary Events include (1) a delisting of Shares on an exchange, (2) an insolvency or bankruptcy of the Issuer of the Shares, (3) a merger event entailing the consolidation of Shares with those of another entity, (4) a nationalisation of the Issuer of the Shares or transfer of Shares to a governmental entity, or (5) a tender offer or takeover offer that results in transfer of Shares to another entity.

Upon determining that a Potential Adjustment Event or an Extraordinary Event has occurred in relation to a Share or Share issuer, the Issuer has discretion to make certain determinations to account for such event including to (aa) make adjustments to the terms of the Securities (without the consent of Securityholders), and/or (bb) (in the case of an Extraordinary Event) (x) cause an early redemption of the Securities prior to their scheduled maturity by payment of an Early Redemption Amount instead of the Final Redemption Amount. Any of such determinations may have an adverse effect on the value of and return on the Securities. Following a determination by the Issuer above, no other amounts shall be payable in respect of the Securities on account of interest or otherwise.

In making any such adjustments or determinations, the Issuer in such capacity will (whether or not already expressed to be the case in the Conditions) act in good faith and in a commercially reasonable manner, and (where there is a corresponding applicable regulatory obligation) shall take into account whether fair treatment is achieved by any such adjustments or determinations in accordance with its applicable regulatory obligations.

Please refer to the section headed "Overview of the Potential for Discretionary Determinations by the Issuer" for more information.

(iv) *Loss of return of dividends in respect of most Securities linked to Shares*

Unless the terms and conditions of the Securities specify otherwise, holders of such Securities in respect of which an Underlying Asset is a Share will not participate in dividends or other distributions paid on such Share. Therefore, the return on such Securities will not reflect the return a Securityholder would have realised had it actually owned such Shares and received the dividends in respect of them.

(b) **Risks associated with Equity Indices**

(i) *Factors affecting the performance of Indices may adversely affect the value of and return on the Securities*

Indices are comprised of a synthetic portfolio of shares or other assets, and as such, the performance of an Index is dependent upon the macroeconomic factors relating to the shares or other components that comprise such Index, which may include interest and price levels on the capital markets, currency developments, political factors and (in the case of shares) company-specific factors such as earnings position, market position, risk situation, shareholder structure and distribution policy.

(ii) *Returns on Securities will not be the same as a direct investment in futures or options on the Index or in the underlying components of the Index*

An investment in the Securities linked to Indices is not the same as a direct investment in futures or option contracts on any or all of the relevant Indices nor any or all of the constituents included in each Index. In particular, investors will not benefit directly from any positive movements in any Index nor will investors benefit from any profits made as a direct result of an investment in such Index. Accordingly, changes in the performance of any Index may not result in comparable changes in the market value of or return on the Securities linked to such Index.

(iii) *Loss of return of dividends in respect of most Securities linked to Indices*

The rules of an Index might stipulate that dividends distributed on its components do not lead to a rise in the Index Level, for example, if it is a "price" index. As a result, holders of Securities linked to such Index would lose the benefit of any dividends paid by the components of the Index and such Securities would not perform as well as a position where such holder had invested directly in such components or where they invested in a "total return" version of the Index. Even if the rules of the relevant underlying Index provide that distributed dividends or other distributions of the components are reinvested in the Index and therefore result in raising its level, in some circumstances the dividends or other distributions may not be fully reinvested in such Index.

(iv) *A change in the composition or discontinuance of an Index could have a negative impact on the value of the Securities*

The sponsor of an Index can add, delete or substitute the components of such Index or make other methodological changes that could change the level of one or more components. The changing of the components of an Index may affect the level of such Index as a newly added component may perform significantly worse or better than the component it replaces, which in turn may adversely affect the value of and return on the Securities. The sponsor of an Index may also alter, discontinue or suspend calculation or dissemination of such Index. The sponsor of an Index will have no involvement in the offer and sale of the Securities and will have no obligation to any investor in such Securities. The sponsor of an Index may take any actions in respect of such Index without regard to the interests of the investor in the Securities, and any of these actions could have an adverse effect on the value of and return on the Securities.

(v) *Occurrence of Index Adjustment Events*

Upon determining that an Index Adjustment Event has occurred in relation to an Index, pursuant to the terms and conditions of the Securities, the Issuer has the discretion to (A) make certain determinations and adjustments to account for such event including to make adjustments to the terms of the Securities (without the consent of Securityholders), and/or (B) cause an early redemption of the Securities prior to their scheduled maturity by payment of the Early Redemption Amount instead of the Final Redemption Amount, any of such determinations may have an adverse effect on the value of and return on the Securities. Following a determination by the Issuer in accordance with (B), no other amounts shall be payable in respect of the Securities on account of interest or otherwise.

In making any such adjustments or determinations, the Issuer in such capacity will (whether or not already expressed to be the case in the Conditions) act in good faith and in a commercially reasonable manner, and (where there is a corresponding applicable regulatory obligation) shall take into account whether fair treatment is achieved by any such adjustments or determinations in accordance with its applicable regulatory obligations.

Please refer to the section headed "Overview of the Potential for Discretionary Determinations by the Issuer" for more information. See risk factor 5(i) (*Regulation and reform of certain published rates, indices and other values or "benchmarks" may adversely affect the value of and return on Securities linked to such rates, indices, values or "benchmarks"*).

7. Risks associated with conflicts of interest between the Issuer and holders of Securities

(a) Calculations and determinations under the Securities

In making calculations and determinations with regard to the Securities, there may be a difference of interest between the Securityholders and the Issuer. Save where otherwise provided in the terms and conditions, the Issuer is required to act in good faith and in a commercially reasonable manner but does not have any obligations of agency or trust for any investors and has no fiduciary obligations towards them. In particular, the Issuer and its affiliated entities may have interests in other capacities (such as other business relationships and activities). Prospective investors should be aware that any determination made by the Issuer may have a negative impact on the value of and return on the Securities.

Each of the Issuer, the Dealer or any of their respective affiliates may have existing or future business relationships with each other (including, but not limited to, lending, depository, derivative counterparty, risk management, advisory and banking relationships), and when acting in such other capacities the Issuer, the Dealer or any of their respective affiliates may pursue actions and take steps that it deems necessary or appropriate to protect its interests arising therefrom without regard to the consequences for any particular Securityholder.

(b) Hedging and dealing activities in relation to the Securities and Underlying Asset(s)

In the ordinary course of its business the Issuer and/or any of its affiliates may effect transactions for its own account or for the account of its customers and may enter into one or more hedging transactions with respect to the Securities or related derivatives. In connection with such hedging or market-making activities or with respect to proprietary or other trading activities by the Issuer and/or any of its affiliates, the Issuer and/or any of its affiliates may enter into transactions in or in respect of the Underlying Asset(s) or related derivatives which may affect the market price, liquidity, value of or return on the Securities and which could be adverse to the interest of the relevant Securityholders.

For example, the Issuer (itself or through an affiliate) may hedge the Issuer's obligations under the Securities by purchasing futures and/or other instruments linked to the Underlying Asset(s) or (if an Index) the stocks or other components underlying the Underlying Asset(s). The Issuer (or affiliate) may adjust its hedge by, among other things, purchasing or selling any of the foregoing, and perhaps other instruments linked to the Underlying Asset(s) or (if applicable) the components, at any time and from time to time, and may unwind the hedge by selling any of the foregoing on or before the maturity date or the settlement date (as applicable) for the Securities. The Issuer (or affiliate) may also enter into, adjust and unwind hedging transactions relating to other securities whose returns are linked to changes in the level, price, rate or other applicable value of the Underlying Asset(s) or (if applicable) the components. Any of these hedging activities may adversely affect the level, price, rate or other applicable value of the Underlying Asset(s) — directly or (if applicable) indirectly by affecting the level, price, rate or other applicable value of underlying components — and therefore the value of and return on the Securities. It is possible that the Issuer (or affiliate) could receive substantial returns with respect to such hedging activities while the value of and return on the Securities may decline.

Moreover, the Issuer (or affiliate) may also engage in trading in one or more of the Underlying Asset(s) or (if applicable) the components or instruments whose returns are linked to the Underlying Asset(s) or (if applicable) the components, for its proprietary accounts, for other accounts under its management or to facilitate transactions, including block transactions, on behalf of customers. Any of these activities of the Issuer (or affiliate) could adversely affect the level, price, rate or other applicable value of the Underlying Asset(s) — directly or (if applicable) indirectly by affecting the level, price, rate or other applicable value of the components — and therefore, the value of and return on the Securities. The Issuer (or affiliate) may issue or underwrite, other securities or financial or derivative instruments with returns linked to changes in the level, price, rate or other applicable value of the Underlying Asset(s) or (if applicable) one or more of the components, as applicable. By introducing competing products into the marketplace in this manner, the Issuer (or affiliate) could adversely affect the value of and return on the Securities.

(c) **Confidential information relating to the Underlying Asset(s)**

The Issuer and its affiliates (and any of their employees) may from time to time, by virtue of their status as underwriter, advisor or otherwise, possess or have access to information relating to the Underlying Asset(s) and any derivative instruments referencing them. None of the Issuer or its affiliates will be obliged (and may be subject to legal prohibition) to disclose any such information to an investor in the Securities.

8. Cautionary statement regarding forward-looking statements

This Supplement contains or incorporates by reference statements that constitute forward-looking statements. In addition, in the future the Issuer, and others on its behalf, may make statements that constitute forward-looking statements. Such forward-looking statements may include, without limitation, statements relating to the Issuer's or the Group's plans, targets or goals, the Issuer's or the Group's future economic performance or prospects, the potential effect on the Issuer's or the Group's future performance of certain contingencies, and assumptions underlying any such statements.

Words such as "believes", "anticipates", "expects", "intends" and "plans" and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements. The Issuer does not intend to update these forward-looking statements.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that predictions, forecasts, projections and other outcomes described or implied in forward-looking statements will not be achieved. The Issuer cautions potential investors that a number of important factors could cause results to differ materially from the plans, targets, goals, expectations, estimates and intentions expressed in such forward-looking statements. These factors include: (i) the ability to maintain sufficient liquidity and access capital markets; (ii) market volatility and interest rate fluctuations and developments affecting interest rate levels; (iii) the strength of the global economy in general and the strength of the economies of the countries in which the Issuer conducts its operations, in particular the risk of continued slow economic recovery or downturn in the EU, the United States or other developed countries or in emerging markets in 2019 and beyond; (iv) the direct and indirect impacts of deterioration or slow recovery in residential and commercial real estate markets; (v) adverse rating actions by credit rating agencies in respect of the Issuer, sovereign issuers, structured credit products or other credit-related exposures; (vi) the ability of the Issuer to achieve its strategic goals, including those related to its targets and financial goals; (vii) the ability of counterparties to meet their obligations to the Issuer; (viii) the effects of, and changes in, fiscal, monetary, exchange rate, trade and tax policies, as well as currency fluctuations; (ix) political and social developments, including war, civil unrest or terrorist activity; (x) the possibility of foreign exchange controls, expropriation, nationalisation or confiscation of assets in countries in which the Issuer conducts its operations; (xi) operational factors such as systems failure, human error, or the failure to implement procedures properly; (xii) the risk of cyber attacks, information or security breaches or technology failures on the Issuer's business or operations; (xiii) the adverse resolution of litigation, regulatory proceedings and other contingencies; (xiv) actions taken by regulators with respect to the Issuer's business and practices and possible resulting changes to its business, organisation, practices and policies in countries in which it conduct its operations; (xv) the effects of changes in laws, regulations or accounting or tax standards, policies or practices in countries in which the Issuer conducts its operations; (xvi) the potential effects of changes in the Issuer's legal entity structure; (xvii) competition or changes in the Issuer's competitive position in geographic and business areas in which it conducts its operations; (xviii) the ability to retain and recruit qualified personnel; (xix) the ability to maintain the Issuer's reputation and promote the Issuer's brand; (xx) the ability to increase market share and control expenses; (xxi) technological changes; (xxii) the timely development and acceptance of the Issuer's new products and services and the perceived overall value of these products and services by users; (xxiii) acquisitions, including the ability to integrate acquired businesses successfully, and divestitures, including the ability to sell non-core assets; and (xxiv) other unforeseen or unexpected events and the Issuer's success at managing these and the risks involved in the foregoing.

The Issuer cautions potential investors that the foregoing list of important factors is not exclusive. When evaluating forward-looking statements, potential investors should carefully consider the foregoing factors and other uncertainties and events, as well as the risk factors and other information incorporated into or contained in this Supplement.

DOCUMENTS INCORPORATED BY REFERENCE

The Listing Supplement and this Supplement should be read and construed in conjunction with the following document which shall be deemed to be incorporated in, and form part of, the Listing Supplement and the Supplement and supplement the section entitled "*Documents Incorporated by Reference*" of the Listing Supplement:

(a) The registration document of the Issuer dated 21 May 2019 (the "**CSi Registration Document**") approved by the UK Listing Authority (as may be supplemented and/or replaced from time to time) is incorporated by reference in respect of CSi. The latest CSi Registration Document and any supplements thereto are available at https://www.credit-suisse.com/media/assets/investment-banking/docs/financial-regulatory/international/csi-registration.pdf.

(b) The annual and current reports, including interim financial information, and other relevant information of CSi, are incorporated by reference in respect of CSi and are available at https://www.credit-suisse.com/investment_banking/financial_regulatory/en/international.jsp.

Copies of this Supplement will be available for inspection during normal business hours on any business day (except Saturdays, Sundays and legal holidays) at the offices of the Paying Agents. In addition, copies of the documents incorporated by reference in this Supplement (and any document incorporated by reference therein) will be available free of charge during normal business hours on any business day (except Saturdays, Sundays and legal holidays) at the offices of the Paying Agents and at the registered office of the Issuer.

OVERVIEW OF THE POTENTIAL FOR DISCRETIONARY DETERMINATIONS BY THE ISSUER

The section in the Listing Supplement entitled "OVERVIEW OF THE POTENTIAL FOR DISCRETIONARY DETERMINATIONS BY CSI" shall be updated by the information below in its entirety.

<table>
<tr><td>What are the types of events that could give rise to a discretionary determination by the Issuer?</td><td>Broadly, there are three types of events that could give rise to a discretionary determination by the Issuer:

(c) if the Issuer's obligations under the Securities or its related hedging arrangements become or will become illegal;

(d) external events which affect the Underlying Asset(s) (if any); and

(e) (depending on the terms of the particular Securities) external events which affect the Issuer's hedging arrangements.</td></tr>
<tr><td>What are the types of external events which affect the Underlying Asset(s)?</td><td>If the Securities are linked to one or more Underlying Assets, there are many different external events that may affect such Underlying Asset(s), and these will vary depending on the type of Underlying Asset(s), as summarised in the table below:

<table>
<tr><th>Type(s) of Underlying Asset</th><th>External events which affect such Underlying Asset(s)</th></tr>
<tr><td>Equity</td><td>Potential Adjustment Events: broadly, corporate actions relating to the share issuer which have a dilutive or concentrative effect on the theoretical value of the share - for example, a stock split or a distribution payment to holders of the shares.

Extraordinary Events: events which materially impact on the business of the share issuer, such as a merger, a takeover or tender offer, the nationalisation of the shares or assets of the share issuer, a delisting of the relevant shares on an exchange or the share issuer becomes insolvent.</td></tr>
<tr><td>Equity Index</td><td>Successor Index: the index is replaced by another index which is calculated using the same (or substantially similar) formula.

Index Adjustment Events: events which materially impact on the calculation of the index - for example, the relevant sponsor cancels the index or fails to calculate the level of the index or materially changes the formula for calculating the index, or if the index may not be used in certain ways by the Issuer if its administrator does not obtain authorisation or</td></tr>
</table></td></tr>
</table>

		registration (subject to applicable transitional provisions).

What are the types of external events which affect the Issuer's hedging arrangements?	There are many different external events that may affect the Issuer's hedging arrangements, and these will vary depending on (a) the type of Underlying Asset or (b) the type of Securities, as summarised in the table below:

Type(s) of Underlying Asset / Type of Security	External events which affect the Issuer's hedging arrangements
Equity, Equity Index	**Change in law:** as a result of a change in any applicable law, it has become unlawful or illegal to conduct its hedging arrangements or it will incur a materially increased cost in performing its obligations under the Securities. **Hedging Disruption:** an event which impacts the ability of the Issuer and/or its affiliates to hedge the risk of the Issuer entering into and performing its obligations under the Securities – for example, if the Issuer is unable to enter into a hedge or to realise the proceeds of a hedge. **Increased Cost of Hedging:** the Issuer and/or its affiliates would incur a materially increased cost to hedge the risk of the Issuer entering into and performing its obligations under the Securities (except where the increased cost is due to the deterioration of the creditworthiness of the Issuer and/or its affiliates). **Foreign Ownership Event:** as a result of restrictions on ownership of shares by foreign persons in the relevant jurisdiction, the Issuer and/or its affiliates are unable to conduct its hedging arrangements. **FX Disruption:** an event which impacts on the ability of the Issuer and/or its affiliates to transfer or

		convert any relevant amounts in relation to its hedging arrangements. **Jurisdictional Event:** an event where, as a result of the risks (which may be political, legal or otherwise) associated with certain emerging countries, has the effect of reducing the value of the proceeds of the Issuer's hedging arrangements.
	Equity	**Loss of Stock Borrow:** the Issuer and/or its affiliates are not able to borrow shares for the purposes of its hedging arrangements. **Increased Cost of Stock Borrow:** the Issuer and/or its affiliates will incur increased costs to borrow shares for the purposes of its hedging arrangements.
	Equity	**Insolvency Filing:** an event which impacts on the transferability of the shares as a result of insolvency or similar proceedings affecting the share issuer.

Why is it necessary for the Issuer to make discretionary determination following the occurrence of such events?	The Issuer may be unable to continue to perform its obligations under the Securities or its related hedging arrangements if they become or will become unlawful or illegal. In that case, (depending on the terms of the particular Securities) the Issuer may need to (a) adjust the terms of the Securities so that it is no longer illegal for it to perform its obligations, (b) early redeem the Securities or (c) substitute the relevant Underlying Asset. Where the Securities are linked to one or more Underlying Assets, the investment objective of the Securities is to allow an investor to gain an economic exposure to the Underlying Asset(s). If an Underlying Asset is materially impacted by an unexpected event – for example, (a) a company merges and the original stock that formed an Underlying Asset is restructured or changed, (b) the rules of an index that is an Underlying Asset are materially modified or (c) a material change to the investment objective and strategy of a fund that is an Underlying Asset - then it may not be possible to achieve the investment objective of the Securities based on the original terms and conditions of the Securities. The Issuer will need to make certain discretionary determinations in order to preserve the original economic objective and rationale of the Securities. In addition, the Issuer or its affiliates or the hedging entity may enter into hedging arrangements in order to manage its exposure in relation to its payment obligations under the Securities and to enable it to issue the

	Securities at the relevant price and on the relevant terms. If the amount(s) payable by the Issuer under the Securities depend on the performance of the Underlying Asset(s) or an interest rate, the hedging arrangements may involve (a) holding the Underlying Asset(s) or the components constituting the Underlying Assets(s) directly, or (b) entering into derivative contracts with counterparties to receive a corresponding economic exposure to the Underlying Asset(s) or the relevant interest rate, or to hedge the interest rate, currency rate or price risk in relation to the Underlying Asset(s) or the Securities. The exercise of the Issuer's discretion is necessary if an external event occurs subsequent to the issuance of the Securities which negatively impacts the Issuer's hedging arrangements or the costs of maintaining such hedging arrangements. The occurrence of such unanticipated external events is unlikely to have been reflected in the original pricing of the Securities.

If such an event occurs, what actions can the Issuer take?	Broadly, depending on the terms of the Securities (and bearing in mind that different terms may apply to different types of Underlying Assets and where specified to be applicable in the relevant Pricing Supplement), the Issuer may take one or more of the following actions in order to deal with the effect of the events outlined above: (a) **Adjustments to the terms and conditions of the Securities**: The Issuer may adjust the terms and conditions of the Securities to account for the economic effect of the external event on the Underlying Asset(s) or (where applicable in relation to the particular Securities) on its hedging arrangements, and to preserve the original economic objective and rationale of the Securities. This may include adjustments to the amount(s) payable and/or any variable relevant to payment under the Securities. (b) **Substitution of the Underlying Asset(s):** In respect of Share Securities, Share Basket Securities and Reverse Convertible Securities (in each case where "Share Substitution" is specified to be applicable in the relevant Pricing Supplement), following an Extraordinary Event or Additional Disruption Event (in each case as described above), the Issuer may substitute the Underlying Asset(s) with a replacement asset satisfying the criteria set out in the applicable Terms and Conditions. The Issuer may also make adjustments to the terms and conditions of the Securities to account for such event and the replacement of the original Underlying Asset, and to preserve the original economic objective and rationale of the Securities. (c) **Early redemption and/or payment of the Early Redemption Amount**: In certain situations, if the Issuer determines that no adjustment to the terms and conditions would lead to a commercially reasonable result, or the Underlying Asset(s) cannot be replaced with a suitable substitute asset, replacement index or replacement reference rate, as the case may be (if applicable), or it would be unlawful or would contravene applicable licensing requirements for the Issuer to perform the relevant determinations or calculations or an adjustment spread is or would be a benchmark, index or other price source that would subject the Issuer or the Calculation Agent to material additional regulatory obligations (if applicable), the Issuer may either (i) early redeem the Securities or (ii) redeem the Securities on maturity, in each case by payment of the Early Redemption Amount instead of the Final Redemption Amount, as the case may be, and no other amounts shall be payable in respect of the Securities on account of interest or otherwise following such determination by the Issuer, provided that, in respect of Instalment Securities, notwithstanding the occurrence of such an event, each Instalment Amount scheduled to be paid (but unpaid) on an Instalment Date falling on or after the early redemption of the Securities shall continue to be paid on such Instalment Date. See "How is the Early Redemption Amount calculated?" below.
How is the Early Redemption Amount calculated?	The Early Redemption Amount may be: (a) "par" which is the outstanding principal amount of such Securities plus accrued and unpaid interest; (b) the specified minimum amount; or (c) a sum equal to the fair market value of the Securities immediately prior to such redemption (which may be greater than or equal to zero), such

	value to be calculated by the Calculation Agent or the Issuer using its internal models and methodologies, taking into account the time remaining to maturity of the Securities, the relevant interest rates, the value, expected future performance and/or volatility of the Underlying Asset(s) (if any) and any other relevant information. In each case, the Early Redemption Amount may, if so specified in the relevant Pricing Supplement, be adjusted to account for any associated losses, expenses or costs that are incurred (or would be incurred) by the Issuer and/or its affiliates as a result of unwinding, establishing, re-establishing and/or adjusting any hedging arrangements in relation to the Securities.
What is the effect of such event and/or action taken by the Issuer?	Any of the above actions, if taken by the Issuer, may result in a reduced return on the Securities and/or have a material adverse impact on the value of the Securities. The Early Redemption Amount could be less than such investor's initial investment (and may be reduced to zero). Further, if the Securities are redeemed early prior to the scheduled maturity, an investor may be unable to reinvest the redemption proceeds in another investment at the time that provides an equivalent return.
Will the Issuer notify me if such an event occurs and/or if it takes any of the above actions?	Yes, the Issuer will generally give notice to Securityholders as soon as practicable upon making any adjustments to the terms and conditions of the Securities, or if it substitutes an Underlying Asset with a replacement asset, or if the Issuer determines to early redeem the Securities or to pay the Early Redemption Amount at maturity, or if the Issuer makes any other discretionary determination.
Are there any other situations where the Issuer may make discretionary determinations?	*Disruption events affecting the valuation of an Underlying Asset* If the Issuer determines that a disruption event in relation to an Underlying Asset has occurred which affects the valuation of such Underlying Asset on any relevant day, the Issuer may postpone, or apply alternative provisions for, the valuation of such Underlying Asset (such as by making its own determination of the value of such Underlying Asset or using an estimate of any variable to calculate the amount(s) payable under the Securities). Such determination(s) may have an adverse effect on the value of the Securities.
How will the Issuer exercise its discretion?	In considering whether and how to make such a discretionary determination, the Issuer shall (whether or not already expressed to be the case in the Conditions) act in good faith and in a commercially reasonable manner, and (where there is a corresponding applicable regulatory obligation) shall take into account whether fair treatment is achieved by any such discretionary determination in accordance with its applicable regulatory obligations.
Where can I find more information?	See risk factors 3(h) (*In certain circumstances, the Issuer may redeem the Securities (other than due to a mandatory automatic early redemption event) prior to their scheduled maturity. The Early Redemption Amount payable on such early redemption may be less than the issue price or the purchase price and investors may therefore lose some or all of their investment and may not be able to reinvest the proceeds in another investment offering a comparable return)*, 4(i) (*Occurrence of Additional Disruption Events*), 5(k) (*Risks associated with reference rates by reference to which any amount payable under the Securities is determined*), 6(a)(iii) (*Determinations made by the Issuer in respect of Potential Adjustment Events and Extraordinary Events may have an adverse effect on the value of the Securities)* and 6(b)(v) (*Occurrence of Index Adjustment Events*) for more information

CREDIT SUISSE INTERNATIONAL

Credit Suisse International

CSi was incorporated in England and Wales under the Companies Act 1985, on 9 May 1990, with registered no. 2500199, was re-registered as an unlimited company under the name "Credit Suisse Financial Products" on 6 July 1990, and was renamed "Credit Suisse First Boston International" on 27 March 2000 and "Credit Suisse International" on 16 January 2006.

CSi, a bank domiciled in England established under English law, is an indirect wholly owned subsidiary of Credit Suisse Group AG ("CSG"). CSi's registered head office is in London and is located at One Cabot Square, London E14 4QJ and its telephone number is +44 (0)20 7888 8888.

CSi is authorised by the PRA and regulated by the FCA and the PRA.

CSi is an unlimited liability company and, as such, its shareholders have a joint, several and unlimited obligation to meet any insufficiency in the assets of CSi in the event of its liquidation. The joint, several and unlimited liability of the shareholders of CSi to meet any insufficiency in the assets of CSi will only apply upon liquidation of CSi. Therefore, prior to any liquidation of CSi, the creditors may only have the benefit of recourse to the assets of CSi and not to those of its shareholders.

CSi commenced business on 16 July 1990. Its principal business is banking, including the trading of derivative products linked to interest rates, foreign exchange, equities, commodities and credit. The primary objective of CSi is to provide comprehensive treasury and risk management derivative product services. CSi has established a significant presence in global derivative markets through offering a full range of derivative products and continues to develop new products in response to the needs of its customers and changes in underlying markets. The business is managed as a part of the Global Markets and Investment Banking and Capital Markets Divisions of CS. For more information on CSi's principal markets and activities, see sub-sections "Business Model" on page 9 and "Strategy" on page 9 to 11 of the 2018 CSi Annual Report (as defined in the CSi Registration Document).

The liquidity and capital requirements of CSi are managed as an integral part of the wider Credit Suisse framework. This includes the local regulatory liquidity and capital requirements in the UK.

Organisational Structure

The subsidiaries of CSi which are consolidated in the financial statements contained in the 2018 CSi Annual Report (as defined in the CSi Registration Document) are listed under sub-section "Composition of the CSi Group" on pages 121 to 126 of the 2018 CSi Annual Report (as defined in the CSi Registration Document). For information on CSi's relationship to CSG, see page 9 of the 2018 CSi Annual Report (as defined in the CSi Registration Document).

Major Shareholders

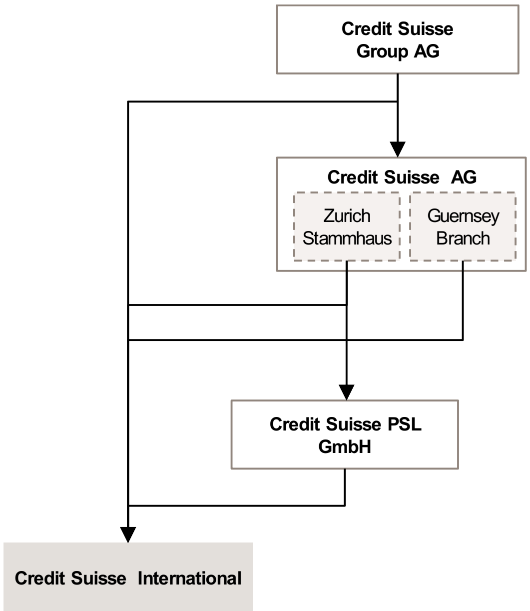
The shareholders of CSi are:

(a) CSG, whose head office is at Paradeplatz 8, CH-8001 Zürich, Switzerland, and who is the ultimate parent of the consolidated Credit Suisse Group which includes CS;

(b) CS, a Swiss bank and a leading global bank acting through its registered head office at Paradeplatz 8, CH-8001 Zürich, Switzerland (Zürich Stammhaus) which provides its clients with private banking, investment banking and asset management services worldwide;

(c) CS, Guernsey Branch, whose place of business is at Helvetia Court, Les Echelons, South Esplanade, St Peter Port GY1 3ZQ, Guernsey was established as a Branch of CS on 1 April 1986 and whose principal activities are deposit taking, bond issuing and lending the funds received within the Credit Suisse Group; and

(d) Credit Suisse PSL GmbH, whose registered office is c/o CS, Paradeplatz 8, CH-8001 Zürich, Switzerland and was incorporated in Zürich, Switzerland on 29 September 2009 and whose principal activity is to finance, purchase, hold, manage and sell financial participations in other Credit Suisse Group companies.



There is trading of shares in CSi between these shareholders and therefore the respective shareholdings will change from time to time, although CSi will remain an indirect wholly owned subsidiary of CSG.

Material Adverse Change and Significant Change

There has been no significant change in the financial position of CSi and its consolidated subsidiaries since 31 December 2018.

There has been no material adverse change in the prospects of CSi and its consolidated subsidiaries since 31 December 2018.

See pages 16 to 18 and 161 to 177 of the 2018 CSi Annual Report (as defined in the CSi Registration Document), and the "*Risk Factors*" section of the Listing Supplement and its Supplements that together disclose the principal risks to CSi.

Names and Addresses of Directors and Executives

The business address of the members of the Board of Directors is One Cabot Square, London E14 4QJ.

As of 1 May 2019, John Devine was appointed as Chair of the Board of Directors, and Noreen Doyle stepped down from the Board of Directors. The current members of the Board of Directors, their role within CSi and their principal activities outside CSi, if any, are as follows:

Board Member	External Activities
John Devine (Non- Executive Chair)	o Independent member and Chair of the Board of Directors, Chair of the Nomination, Member of the Audit and the Conflicts Committee of CSi and Credit Suisse Securities (Europe) Limited. o Mr. Devine is also ▪ Non-Executive Director, Chair of Audit Committee, Member of Risk Committee and Remuneration

	Committee of Standard Life Aberdeen PLC; and ▪ Non-Executive Director, Chair of Audit Committee, Member of Risk Committee and Nominations Committee of Citco Custody (UK) Ltd and Citco Custody Holding Ltd Malta.
Paul Ingram	o Managing Director in the CRO division of CSi. o Mr. Ingram is also Chief Risk Officer of CSi and Credit Suisse Securities (Europe) Ltd. o Member of the Board of Directors of CSi and Credit Suisse Securities (Europe) Limited.
Christopher Horne	o Managing Director in the CFO division and Chair of the Disclosure Committee of CSi. o Mr. Horne is also Deputy CEO of CSi and Credit Suisse Securities (Europe) Ltd. o Member of the Board of Directors of CSi, Credit Suisse Securities (Europe) Limited, Credit Suisse Investment Holdings (UK) and Credit Suisse Investments (UK).
Alison Halsey (Non-Executive)	o Independent member of the Board of Directors, Chair of the Audit Committee and the Conflicts Committee and Member of the Risk Committee, the Nomination Committee and the Advisory Remuneration Committee of CSi and Credit Suisse Securities (Europe) Limited. o Ms. Halsey is also: ▪ Non-executive Director and Member of the Risk & Compliance; and Nominations Committees and Chair of the Audit Committee of Aon UK Limited.
David Mathers (CEO)	o Managing Director in the CFO division of CS. o Mr. Mathers is also CEO of CSi and Credit Suisse Securities (Europe) Limited and CFO of CS. o Member of the Board of Directors of CSi and Credit Suisse Securities (Europe) Limited. o Member of the Executive Board of Credit Suisse AG and Credit Suisse Grroup AG.
Robert Endersby (Non-Executive)	o Independent member of the Board of Directors, Chair of the Risk Committee and Member of the Audit, the Advisory Remuneration and the Conflicts Committee of CSi and Credit Suisse Securities (Europe) Limited. o Mr. Endersby is also Non-executive Director, Chair of Risk Committee, Member of Audit Committee, Remuneration Committee and Disclosure Committee of Tesco Personal

	Finance Group Plc and Tesco Personal Finance Plc.
Caroline Waddington	o Managing Director in the CFO division of CSi. o Ms. Waddington is also CFO for Credit Suisse UK Regulated Entities including CSi and Chair of the UK Pension Committee. o Member of the Board of Directors of CSi, Credit Suisse Securities (Europe) Limited, Credit Suisse Investment Holdings (UK) and Credit Suisse Investments (UK). o Ms. Waddington is a member of the Board of Directors of: ▪ NameCo (No.357) Limited; ▪ Roffey Park Institute Limited, and a member of the Audit & Risk Committee; and ▪ Brook House (Clapham Common) Management Company Limited.
Jonathan Moore	o Managing Director in the Fixed Income Department within the Investment Banking Division of CSi. o Mr. Moore is also Head of Global Credit Products in EMEA and Senior Manager for Credit & Client in the UK. o Member of the Board of Directors of CSi and of Credit Suisse Securities (Europe) Limited.
Michael DiIorio	o Managing Director in the Global Markets division of CSi. o Mr. DiIorio is also Head of EMEA Equities which includes Cash Equities, Syndicate, Convertibles, Prime Services and Equity Derivatives. o Member of the Board of Directors of CSi and Credit Suisse Securities (Europe) Limited.
Andreas Gottschling (Non-Executive)	o Independent member of the Board of Directors, the Risk Committee and Advisory Remuneration Committee of CSi and Credit Suisse Securities (Europe) Limited. o Mr. Gottschling is also a member of the Board of Directors, the Audit Committee and the Governance & Nominations Committee, and Chair of the Risk Committee of CS and CSG.
Nicola Kane	o Managing Director in the COO division of CSi. o Ms. Kane is also Global Head of Group Operations and Co-Head of Operations' Technology and Solutions Delivery. o Member of the Board of Directors of CSi and Credit Suisse Securities (Europe) Limited.

Pages 1 to 7 of the 2018 CSi Annual Report (as defined in the CSi Registration Document) provide further information on CSi's Board of Directors.

Directors' Conflicts of Interest

There are no potential conflicts of interest of the members of the Board of Directors between their duties to CSi and their private interests and/or other duties. Potential conflicts of interest of members of the Board of Directors due to roles held with CSG / CS are managed by a Board Conflicts Committee and Conflicts Management Framework.

Legal and Arbitration Proceedings

During the period of 12 months ending on the date of this Supplement to Listing Supplement there have been no governmental, legal or arbitration proceedings which may have, or have had in the past, significant effects on the financial position or profitability of CSi and CSi is not aware of any such proceedings being either pending or threatened, except as disclosed in the 2018 CSi Annual Report (as defined in the CSi Registration Document) (under the heading Contingent Liabilities and Other Commitments on page 120) and below:

- CSi is the defendant in lawsuit brought by the German public utility company Stadtwerke Munchen 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 trades at inception. On 22 March 2019, the trial court (the Regional Court of Frankfurt am Main) dismissed these claims in their entirety.

- CS group, including Credit Suisse, is responding to requests from regulatory and enforcement authorities related to certain CS group 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 EMATUM financing in September 2013, and certain CS group 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 CS group 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.

Provision for litigation is disclosed in Note 28 to the consolidated financial statements on page 93 of the 2018 CSi Annual Report (as defined in the CSi Registration Document).

Auditor

CSi's auditor is KPMG LLP, 15 Canada Square, London E14 5GL. KPMG LLP is registered to carry out audit work by the Institute of Chartered Accountants in England and Wales.

Further information on CSi's auditor may be found on pages 33 to 40 of the 2018 CSi Annual Report (as defined in the CSi Registration Document).

Financial Information

Financial information relating to CSi is contained in its Annual Reports for the years ended 31 December 2016 and 31 December 2017 (the "**CSi Annual Reports**") which are incorporated by reference in the

CSi Registration Document. Financial information in the CSi Annual Reports has been audited. CSi's Annual Reports are available to the public on the CSG website at https://www.credit-suisse.com/ch/en/investment-banking/financial-regulatory/international.html.

TAXATION

The overview section and the section in the Listing Supplement entitled "UNITED STATES" under "TAXATION" shall be updated by the information below.

The following is an overview of certain tax issues arisig in respect of the Securities, including withholding tax in respect of payments of the income from the Securities by the Issuer (or an agent appointed by it) in accordance with the terms and conditions of such Securities ("**Relevant Payments**"). It is limited to the country of incorporation of the Issuer (the "**Relevant Taxing Jurisdiction**").

It does not relate to any other tax consequences or to withholdings in respect of payments by other persons (such as custodians, depositaries or other intermediaries) unless otherwise specified. Each investor should consult a tax adviser as to the tax consequences relating to its particular circumstances resulting from holding the Securities.

All payments in respect of the Securities by the Issuer or by an agent appointed by such Issuer will be subject to any applicable withholding taxes. However, as at the date hereof, no such taxes would be applicable in respect of any Relevant Payments in the Relevant Taxing Jurisdiction, except as specified below in relation to the countries so specified.

UNITED STATES

The following is an overview of certain of the material U.S. federal income tax consequences of the acquisition, ownership and disposition of Securities by a "**Non-U.S. Holder**" (as defined below) that has no connection with the United States other than owning Securities. This overview does not address, for example, the U.S. federal income tax consequences of holding or owning an underlying asset in connection with a physical settlement of Securities. For purposes of this section, a Non-U.S. holder" is a beneficial owner of the Securities that is: (i) a non-resident alien individual for U.S. federal income tax purposes; (ii) a foreign corporation for U.S. federal income tax purposes; or (iii) an estate or trust whose income is not subject to U.S. federal income tax on a net income basis. If a partnership (including any entity treated as a partnership for U.S. federal income tax purposes) holds Securities, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Investors that are not non-U.S. holders or investors that are partnerships, should consult their tax advisers with regard to the U.S. federal income tax considerations of an investment in the Securities.

This summary is based on interpretations of the United States Internal Revenue Code of 1986 (the "**Code**"), Treasury regulations issued thereunder, and rulings and decisions currently in effect (or in some cases proposed), all of which are subject to change. Any of those changes may be applied retroactively and may adversely affect the U.S. federal income tax consequences described herein. Prospective investors should consult their own tax advisers concerning the application of U.S. federal income tax laws to their particular situations as well as any consequences of the purchase, beneficial ownership and disposition of Securities arising under the laws of any other taxing jurisdiction.

INVESTORS SHOULD CONSULT THEIR TAX ADVISERS AS TO THE U.S. FEDERAL, STATE, LOCAL, AND OTHER TAX CONSEQUENCES TO THEM OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF SECURITIES.

U.S. Foreign Account Tax Compliance Act

Under certain tax information reporting and withholding provisions generally referred to as "FATCA" , a 30 per cent. 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 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 account sections of the Code. 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. To avoid becoming subject to the 30% withholding tax on payments to it, a financial institution may be required to report information to the IRS regarding the holders of the Securities. In the case of holders who (i) fail to provide the relevant information, (ii) are foreign financial institutions who have not agreed to comply with these information reporting requirements, or (iii) hold the Securities directly or indirectly through such noncompliant foreign financial institutions, a payor may be required to withhold on a portion of payments under the Securities.

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 per cent 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 United States owners (or certify that they do not have any substantial United States owners) to withhold tax at a rate of 30 per cent. 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. Further, particular requirements and limitations may apply to any procedures for refunds or credit with respect to amounts withheld or remitted in respect of FATCA. We will not be required to pay any additional amounts with respect to amounts withheld in connection with FATCA.

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 definiting "foreign passthru payments" are published. Notwithstanding the foregoing, the withholding 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 30 June, 2014 (a "**grandfathered obligation**"), unless the obligation is materially modified after such date. If a Non-U.S. Holder holds its Securities through a foreign financial institution or foreign entity, a portion of any of such Non-U.S. Holder's payments may be subject to 30% withholding. The Issuer will not be required to pay any additional amounts with respect to amounts withheld.

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 finalised in their current form.

No assurance can be given that payments on the Securities will not be subject to withholding under FATCA. Each potential investor in Securities should consult its own tax advisor to determine how FATCA may affect an investment in the Securities in such investor's particular circumstance.

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 per cent. A "dividend equivalent" payment is defined under the Code as (i) a substitute dividend payment made pursuant to a securities lending or a sale-repurchase transaction that (directly or indirectly) is contingent upon, or determined by reference to, the payment of a dividend from sources within the United States, (ii) a payment made pursuant to a "specified notional principal contract" (a "specified NPC") that (directly or indirectly) is contingent upon, or determined by reference to, the payment of a dividend from sources within the United States, and (iii) any other payment determined by the IRS to be substantially similar to a payment described in the preceding clauses (i) and (ii).

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 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 with respect to any transaction issued on or after 1 January, 2017 and before 1 January, 2021, any NPC or ELI that has a delta of one with respect to an underlying security is a specified NPC or specified ELI, respectively. With respect to any transaction issued on or after 1 January, 2021, (a) a "simple" NPC or "simple" ELI that has a delta of 0.8 or greater with respect to an underlying security 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 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 U.S. Internal Revenue Service ("**IRS**") could assert that a reconstitution or rebalancing of an underlying basket or index 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 section Code 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.

If withholding applies, the rate of any withholding may not be reduced even if the holder is otherwise eligible for a reduction under an applicable treaty, although Non-U.S. Holders that are entitled to a lower rate of withholding under a tax treaty may be able to claim a refund for any excess amounts withheld by filing a U.S. tax return. However, holders may not receive the necessary information to properly claim a refund for any withholding in excess of the applicable treaty-based amount. In addition, the IRS may not credit a holder with withholding taxes remitted in respect of its Security for purposes of claiming a refund. Finally, a holder's resident tax jurisdiction may not permit the holder to take a credit for U.S. withholding taxes related to the dividend equivalent amount. The Issuer will not pay any additional amounts with respect to amounts withheld.

The relevant Pricing Supplement may indicate if the Issuer has determined that the Securities are transactions subject to withholding under section 871(m). Although the Issuer's determination generally is binding on holders, it is not binding on the IRS. The IRS may successfully argue that the Securities are subject to withholding under section 871(m), notwithstanding the Issuer's determination to the contrary. These regulations are extremely complex. Non-U.S. Holders should consult their tax advisors regarding the U.S. federal income tax consequences to them of section 871(m) and regulations thereunder, and whether payments or deemed payments on the Securities constitute dividend equivalent payments.

Foreign Investment in U.S. Real Property

A Non-U.S. 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 realised 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 Non-U.S. 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 Non-U.S. 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 Non-U.S. Holder. Ownership of the Securities may also impact the taxation of such other shares or interests.

The Issuer does 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 Non-U.S. Holder, in connection with acquiring the Securities, is deemed to represent that it does not own, and will not own, more than 5 per cent. of the shares of each of the underlying that is considered to be a USRPHC, either directly, indirectly or constructively. The Issuer 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. The Issuer will not make any additional payments for any amounts withheld or tax liability arising under section 897 of the Code.

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 Non-U.S. 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 Non-U.S. 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. person 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 Non-U.S. 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 Non-U.S. 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, the Issuer will not be required to pay any additional amounts with respect to amounts withheld.