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Swiss Re Finance (Luxembourg) S.A.

a public limited liability company (société anonyme) incorporated and existing under the laws of Luxembourg, with its registered office at 2A, rue Albert Borschette, L-1246 Luxembourg and registered with the Luxembourg trade and companies register under number B90713

€750,000,000

Guaranteed Subordinated Fixed Rate Reset Step-up Callable Notes with a scheduled maturity in 2050

irrevocably guaranteed on a subordinated basis by

Swiss Reinsurance Company Ltd

The €750,000,000 Guaranteed Subordinated Fixed Rate Reset Step-up Callable Notes with a scheduled maturity in 2050 (the "**Notes**") are being offered by Swiss Re Finance (Luxembourg) S.A., a public limited liability company (société anonyme) incorporated and existing under the laws of Luxembourg, with its registered office at 2A, rue Albert Borschette, L-1246 Luxembourg and registered with the Luxembourg trade and companies register under number B90713 ("**SRFL**" or the "**Issuer**"). The Notes will be irrevocably guaranteed on a subordinated basis (the "**Subordinated Guarantee**") by Swiss Reinsurance Company Ltd, a company organized under the laws of Switzerland ("**SRZ**" or the "**Guarantor**"). The Notes are expected to be issued on March 21, 2019 (such date of issuance, the "**Issue Date**"). The terms and conditions applicable to the Notes are set out in the section entitled "Terms and Conditions of the Notes" herein (the "**Conditions**").

The Issuer will, unless the Notes have previously been purchased, cancelled or redeemed in accordance with the Conditions, redeem the outstanding Notes, in whole but not in part, in cash at their principal amount, together with any accrued and unpaid interest and any outstanding Deferred Interest (as defined in the Conditions) on the Final Maturity Date. The Issuer may, at its option, redeem the outstanding Notes, in whole but not in part, in cash at their principal amount, together with any accrued and unpaid interest and any outstanding Deferred Interest, on April 30, 2030 (the "**First Optional Redemption Date**") and on each subsequent Optional Redemption Date (as defined in the Conditions). The Issuer may also redeem the outstanding Notes, in whole but not in part, in cash, upon the occurrence of a Recalculation Event or a Special Tax Event that is continuing, an Accounting Event, a Ratings Methodology Event or a Regulatory Event (each, as defined in the Conditions, and collectively referred to as "**Early Redemption Events**"). A redemption upon the occurrence of an Early Redemption Event will be at the principal amount of the Notes, together with any accrued and unpaid interest and any outstanding Deferred Interest. The Issuer may redeem the outstanding Notes (or purchase them in the open markets or otherwise) only if (i) no Solvency Event (as defined in the Conditions) has occurred that is continuing, (ii) the Swiss Financial Market Supervisory Authority FINMA, or any successor authority (collectively, "**FINMA**"), has given such consent, approval or non-objection (if any) as is required under relevant rules and regulations (its "**Consent**") and (iii) in the case of a redemption or purchase that is within five years of the Issue Date, and if so required at the relevant time by any rules and regulations then applicable to the Guarantor, such redemption or purchase being (a) funded out of the proceeds of a new issuance of capital of at least the same quality as the Notes and (b) otherwise permitted under relevant rules and regulations, all as more fully described in the Conditions.

The Notes will initially bear interest at a fixed rate of 2.534% per annum during the Initial Interest Period, being the period from (and including) the Issue Date to (but excluding) the First Optional Redemption Date, and thereafter, in respect of each Interest Period falling within a Reset Period (being the period from (and including) a Reset Date to (but excluding) the next Reset Date, and a Reset Date being the First Optional Redemption Date and each anniversary of the First Optional Redemption Date) at the relevant Reset Rate of Interest that is in effect for such Reset Period (such Reset Rate of Interest being the Reset Rate plus the Margin (each as defined

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in the Conditions)), payable annually in arrear on April 30 in each year, commencing April 30, 2019. **Under certain circumstances described in the Conditions, the Issuer may elect, or be required, to defer interest payments on the Notes.**

The Issuer's obligations under the Notes constitute unsecured and subordinated obligations ranking junior to the Issuer's obligations under any Issuer Senior Securities, *pari passu* among themselves and with the Issuer's obligations under any Issuer Parity Securities, and senior to the Issuer's obligations under the Issuer Junior Securities (all as defined in the Conditions). In the event of the liquidation, dissolution, insolvency, compromise, composition with creditors (*concordat préventif de la faillite*), bankruptcy (*faillite*), controlled management proceedings (*gestion controlée*), suspension of payment (*sursis de paiement*), provisional administration (*administration provisoire*) or other similar proceeding for the avoidance of insolvency of, or against, the Issuer, the claims of Noteholders in respect of the Notes will be subordinated to the claims of creditors in respect of Issuer Senior Securities, so that in any such event no amounts shall be payable in respect of the Notes unless the claims of all creditors in respect of Issuer Senior Securities shall have first been satisfied in full.

The Guarantor's obligations under the Subordinated Guarantee constitute unsecured and subordinated obligations ranking junior to the Guarantor's obligations under any Guarantor Senior Securities, *pari passu* with the Guarantor's obligations under any Guarantor Parity Securities, and senior to the Guarantor's obligations under the Guarantor Junior Securities (all as defined in the Conditions). In the event of the liquidation, dissolution, insolvency, compromise or other similar proceeding for the avoidance of insolvency of, or against, the Guarantor, the claims of Noteholders in respect of the Subordinated Guarantee will be subordinated to the claims of all creditors in respect of Guarantor Senior Securities, so that in any such event no amounts shall be payable in respect of the Subordinated Guarantee unless the claims of all creditors in respect of Guarantor Senior Securities shall have first been satisfied in full.

See "Risk Factors" beginning on page 24 of this Offering Memorandum for a discussion of certain factors that should be considered by prospective investors in the Notes.

The Notes and the Subordinated Guarantee have not been, and will not be, registered under the U.S. Securities Act of 1933, as amended (the "**Securities Act**"), or any state securities laws and are being offered and sold outside the United States to persons other than U.S. persons as defined in and in reliance upon Regulation S under the Securities Act ("**Regulation S**"). The Notes and the Subordinated Guarantee are not being offered in the United States or to, or for the account or benefit of, U.S persons.

There is currently no public market for the Notes. Application has been made to admit the Notes to the Official List of the Luxembourg Stock Exchange (the "**Official List**") and to trading on the Euro MTF Market of the Luxembourg Stock Exchange (the "**Euro MTF**"). The final Offering Memorandum will constitute a prospectus for the purposes of Part IV of the Luxembourg Act dated July 10, 2005 on prospectuses for securities, as amended.

Issue Price for the Notes: 100% of principal amount, plus accrued interest from March 21, 2019 if settlement occurs after that date

The Notes will be issued in minimum denominations of €100,000 and integral multiples of €100,000 in excess thereof and will be represented by a registered global note (the "**Global Note**"), which will be deposited with a common depositary on behalf of Euroclear Bank SA/NV ("**Euroclear**") and Clearstream Banking S.A. ("**Clearstream**") and registered in the name of a nominee for the common depositary for Euroclear and Clearstream. The provisions governing the exchange of interests in the Global Note for Definitive Notes (as defined herein) are described in "Overview of Provisions Relating to the Notes While in Global Form."

Joint Book-Runners

BNP PARIBAS **Deutsche Bank** **HSBC** **NatWest Markets** **UBS Investment Bank**

The date of this Offering Memorandum is March 15, 2019

You should rely only on the information contained in this Offering Memorandum. None of the Issuer, the Guarantor or any of BNP Paribas, Deutsche Bank AG, London Branch, HSBC Bank plc, NatWest Markets Plc and UBS AG London Branch (collectively, "Managers") has authorized anyone to provide you with different information. None of the Issuer, the Guarantor or any of the Managers is making an offer of the Notes in any jurisdiction in which such offer is not permitted. You should not assume that the information contained in this Offering Memorandum is accurate at any date other than the date on the front of this Offering Memorandum.

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Important Information

This Offering Memorandum is confidential and has been prepared by the Issuer solely for use in connection with this offering of the Notes (the "**Offering**"). This Offering Memorandum is personal to each offeree and does not constitute an offer to any other person or to the public generally to subscribe for or otherwise acquire Notes. Distribution of this Offering Memorandum to any person other than the prospective investor and any person retained to advise such prospective investor with respect to the purchase of Notes is unauthorized, and any disclosure of any of the contents of this Offering Memorandum, without our prior written consent, is prohibited. Each prospective investor, by accepting delivery of this Offering Memorandum, agrees to the foregoing and to make no photocopies of this Offering Memorandum or any documents referred to in this Offering Memorandum.

In making an investment decision, prospective investors must rely on their own independent examination of our consolidated group and the terms of this Offering, including the merits and risks involved. You should base your decision to invest in the Notes solely on information contained in this Offering Memorandum. None of the Issuer, the Guarantor or the Managers have authorized anyone to provide you with any different information. In addition, none of the Issuer, the Guarantor or any Manager nor any of their respective representatives is making any representation to you regarding the legality of an investment in the Notes, and you should not construe anything in this Offering Memorandum as legal, business or tax advice. You should consult your own advisors as to legal, tax, business, financial and related aspects of an investment in the Notes. This Offering Memorandum does not constitute an offer to sell or an invitation to subscribe for or purchase any of the Notes in any jurisdiction in which such offer or invitation is not authorized or to any person to whom it is unlawful to make such an offer or invitation. You must comply with all laws applicable in any jurisdiction in which you buy, offer or sell the Notes or possess or distribute this Offering Memorandum, and you must obtain all applicable consents and approvals. None of the Issuer, the Guarantor or the Managers shall have any responsibility for any of the foregoing legal requirements.

The Managers make no representation or warranty, express or implied, as to the accuracy or completeness of the information contained in this Offering Memorandum. Nothing contained in this Offering Memorandum is, or shall be relied upon as, a promise or representation by the Managers as to the past or future.

None of the Issuer, the Guarantor or the Managers or any of their respective affiliates has or assumes responsibility for the lawfulness of the acquisition of the Notes by a prospective investor of the Notes, whether under the laws of the jurisdiction of its incorporation or the jurisdiction in which it operates (if different), or for compliance by that prospective investor with any law, regulation or regulatory policy applicable to it.

The information set out in relation to sections of this Offering Memorandum describing clearing and settlement arrangements, including "Book-Entry; Clearing Systems; Settlement; Delivery and Form," is subject to change in, or reinterpretation of, the rules, regulations and procedures of Euroclear and Clearstream currently in effect. Such information has been sourced from the rules, regulations and procedures applicable to Euroclear and Clearstream as stated in their publicly available guidance and materials. Euroclear and Clearstream are not under any obligation to perform or continue to perform under such clearing arrangements and such arrangements may be modified or discontinued by any of them at any time. None of the Issuer, the Guarantor or the Managers or any of their respective affiliates have responsibility for the performance of the respective obligations of Euroclear and Clearstream or their respective participants. Investors wishing to use these clearing systems are advised to confirm the continued applicability of these arrangements.

By receiving this Offering Memorandum, you acknowledge that you have had an opportunity to request from the Issuer and the Guarantor for review, and that you have received, all additional information you deem necessary to verify the accuracy and completeness of the information contained in this Offering Memorandum. You also acknowledge that you have not relied on the Managers in connection with your investigation of the accuracy of this information or your decision whether to invest in the Notes.

None of the U.S. Securities and Exchange Commission, any state securities commission or any other regulatory authority has approved or disapproved of the Notes nor have any of the foregoing authorities passed upon or endorsed the merits of this Offering or the accuracy or adequacy of this Offering Memorandum. Any representation to the contrary is a criminal offence under the laws of the United States.

The Notes are subject to restrictions on transferability and resale and may not be transferred or resold, except as permitted under the Securities Act and applicable state securities laws, pursuant to registration or exemption

therefrom. As a prospective investor, you should be aware that you may be required to bear the financial risks of this investment for an indefinite period of time. Please refer to the section in this Offering Memorandum entitled "Subscription and Sale."

This Offering Memorandum does not constitute a "prospectus" as defined in Directive 2003/71/EC (as amended or superseded, the "**Prospectus Directive**") and has not been prepared to comply with the Prospectus Directive or any relevant implementing measures, nor with any national rules and regulations relating to prospectuses.

The Issuer and the Managers reserve the right to reject all or a part of any offer to purchase the Notes, for any reason. The Issuer and the Managers also reserve the right to sell less than all the Notes offered by this Offering Memorandum or to sell to any purchaser less than the amount of Notes it has offered to purchase.

IN CONNECTION WITH THIS OFFERING, DEUTSCHE BANK AG, LONDON BRANCH (THE "**STABILIZING MANAGER**") (OR PERSONS ACTING ON BEHALF OF THE STABILIZING MANAGER) MAY OVER-ALLOT NOTES OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE MARKET PRICE OF THE NOTES AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL. HOWEVER, STABILIZATION MAY NOT NECESSARILY OCCUR. ANY STABILIZATION ACTION MAY BEGIN ON OR AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE FINAL TERMS OF THE OFFER OF THE NOTES IS MADE AND, IF BEGUN, MAY CEASE AT ANY TIME, BUT IT MUST END NO LATER THAN THE EARLIER OF 30 DAYS AFTER THE ISSUE DATE OF THE NOTES AND 60 DAYS AFTER THE DATE OF THE ALLOTMENT OF THE NOTES. ANY STABILIZATION ACTION OR OVER ALLOTMENT MUST BE CONDUCTED BY THE STABILIZING MANAGER (OR PERSON(S) ACTING ON BEHALF OF THE STABILIZING MANAGER) IN ACCORDANCE WITH ALL APPLICABLE LAWS AND RULES.

Notice to Investors in the United States

The Notes and the Subordinated Guarantee have not been, and will not be, registered under 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 pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. The Notes are not being offered, sold or delivered in the United States or to, or for the account or benefit of, U.S. persons.

Notice to Investors in the European Economic Area

Prohibition of Sales to EEA Retail Investors

The Notes are not intended to be offered, sold or otherwise made available to, and should not be offered, sold or otherwise made available to, any retail investor in the European Economic Area ("**EEA**"). For these purposes, a 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 (as amended, "**MiFID II**"); or (ii) a customer within the meaning of Directive 2002/92/EC (as amended or superseded, the "**Insurance Mediation Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. No key information document required by Regulation (EU) No 1286/2014 (as amended, the "**PRIIPs Regulation**") for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared. Offering or selling the Notes or otherwise making them available to retail investors in the EEA may be unlawful under the PRIIPs Regulation.

Professional investors and ECPs only target market

Solely for the purposes of the product approval process of each manufacturer, the target market assessment in respect of the Notes described in this Offering Memorandum has led to the conclusion that: (i) the target market for such Notes in the EEA is eligible counterparties and professional clients only, each as defined in MiFID II; and (ii) all channels for distribution of such Notes in the EEA to eligible counterparties and professional clients are appropriate. The target market and distribution channel(s) may vary in relation to sales outside the EEA in light of local regulatory regimes in force in the relevant jurisdiction. Any person subsequently offering, selling

or recommending such Notes (a "**distributor**") should take into consideration the manufacturers' target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of such Notes (by either adopting or refining the manufacturers' target market assessment) and determining appropriate distribution channels.

Notice to Investors in Singapore

Solely for the purposes of its obligations pursuant to sections 309B(1)(a) and 309B(1)(c) of the Securities and Futures Act (Chapter 289 of Singapore) (the "**SFA**"), the Issuer has determined, and hereby notifies all relevant persons (as defined in Section 309A(1) of the SFA) that the Notes are "prescribed capital markets products" (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Notice to Investors in Switzerland

The Notes may not be publicly offered, sold or advertised, directly or indirectly, in, into or from Switzerland and will not be listed on the SIX Swiss Exchange or any other exchange or regulated trading facility in Switzerland. Neither this Offering Memorandum nor any other offering or marketing material relating to the Notes constitutes (i) a prospectus as such term is understood pursuant to Article 652a or 1156 of the Swiss Code of Obligations, (ii) a listing prospectus within the meaning of the listing rules of the SIX Swiss Exchange or any other regulated trading facility in Switzerland, (iii) a prospectus as such term is defined in the Swiss Federal Act on Collective Investment Schemes or (iv) a prospectus or a supplementary prospectus pursuant to the EC Directive 2003/71/EC of the European Parliament and of the Council dated November 4, 2003, as amended, and neither this Offering Memorandum nor any other marketing material relating to the Notes may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this Offering Memorandum nor any other offering and marketing material relating to the Offering or the Notes have been or will be filed with or approved by the Swiss Financial Market Supervisory Authority FINMA ("**FINMA**") or any other Swiss regulatory authority.

THIS OFFERING MEMORANDUM CONTAINS IMPORTANT INFORMATION THAT YOU SHOULD READ BEFORE YOU MAKE ANY DECISION WITH RESPECT TO AN INVESTMENT IN THE NOTES.

Introductory Note

Unless the context otherwise requires, references in this Offering Memorandum to:

- "**SRFL**" and the "**Issuer**" are to Swiss Re Finance (Luxembourg) S.A., a public limited liability company (*société anonyme*) incorporated and existing under the laws of Luxembourg, with its registered office at 2A, rue Albert Borschette, L-1246 Luxembourg and registered with the Luxembourg trade and companies register under number B90713;
- "**SRZ**" and the "**Guarantor**" are to Swiss Reinsurance Company Ltd;
- the "**Guarantor Group**," "**we**," "**us**" and "**our**," unless indicated otherwise, are to SRZ and its consolidated subsidiaries;
- "**SRL**" are to Swiss Re Ltd, the ultimate parent company of the Swiss Re Group;
- "**Swiss Re**" and the "**Swiss Re Group**" are to SRL and its consolidated subsidiaries, which includes the Guarantor Group;
- the "**Reinsurance Business Unit**" and "**Reinsurance**" are to reinsurance operations conducted by the Guarantor Group, and include its two operating segments, Property & Casualty Reinsurance and Life & Health Reinsurance;
- the "**Corporate Solutions Business Unit**" and "**Corporate Solutions**" are to the operations largely conducted by Swiss Re Corporate Solutions Ltd, a direct subsidiary of SRL ("**SRCS**");
- the "**Life Capital Business Unit**" and "**Life Capital**" are to the operations conducted by subsidiaries of Swiss Re Life Capital Ltd, a direct subsidiary of SRL ("**SRLC**");
- "**Principal Investments and Acquisitions**" are to Swiss Re Principal Investments Company Ltd, the holding company for the Group's direct participations in companies and investments in certain private equity funds; and
- "**you**," a "**Noteholder**" and "**Noteholders**" are to a purchaser or purchasers of Notes, as the case may be.

The Notes are being issued by the Issuer and guaranteed by the Guarantor. Each Noteholder, will have recourse to the Issuer and the Guarantor only and will not have any recourse against SRL or its other directly or indirectly held subsidiaries.

Financial and Other Information Included or Incorporated by Reference in this Offering Memorandum

This Offering Memorandum incorporates by reference the following financial statements and auditor's reports, which, in the case of the Guarantor Group Financial Statements, are available on the website of the Swiss Re Group, at www.swissre.com/investors/financial_information, and in the case of the Issuer Financial Statements, are available at the offices of the Agent (as defined below):

- the audited consolidated financial statements of the Guarantor Group as of and for the year ended December 31, 2018, which include comparative information as of and for the year ended December 31, 2017, which were prepared in accordance with U.S. GAAP and which were audited by the Guarantor Group's independent auditor, and including the auditor's report on the audited consolidated financial statements of the Guarantor Group as of and for the year ended December 31, 2018 (the "**2018 Guarantor Group Financial Statements**");
- the audited consolidated financial statements of the Guarantor Group as of and for the year ended December 31, 2017, which include comparative information as of and for the year ended December 31, 2016, which were prepared in accordance with U.S. GAAP and which were audited by the Guarantor Group's independent auditor, and including the auditor's report on the audited consolidated financial statements of the Guarantor Group as of and for the year ended December 31, 2017 (the "**2017 Guarantor Group Financial Statements**" and together with the 2018 Guarantor Group Financial Statements, the "**Guarantor Group Financial Statements**");
- the audited stand-alone financial statements of the Issuer as of and for the year ended December 31, 2018, which include comparative information as of and for the year ended December 31, 2017, which were prepared in accordance with Luxembourg legal and regulatory requirements relating to the

preparation of financial statements and which were audited by the Issuer's independent auditor, and including the auditor's report on the audited stand-alone financial statements of the Issuer as of and for the year ended December 31, 2018 (the "**2018 Issuer Financial Statements**"); and

- the audited stand-alone financial statements of the Issuer as of and for the year ended December 31, 2017, which include comparative information as of and for the year ended December 31, 2016, which were prepared in accordance with Luxembourg legal and regulatory requirements relating to the preparation of financial statements and which were audited by the Issuer's independent auditor, and including the auditor's report on the audited stand-alone financial statements of the Issuer as of and for the year ended December 31, 2017 (the "**2017 Issuer Financial Statements**" and, together with the 2018 Issuer Financial Statements, the "**Issuer Financial Statements**"; together with the Guarantor Financial Statements, the "**Financial Statements**").

We also include in this Offering Memorandum certain figures as of and for the year ended December 31, 2018 for the Reinsurance Business Unit, which figures are substantially similar, but not identical, to our consolidated results, as the former are presented on a segment basis at the Swiss Re Group level and aggregate the Property & Casualty Reinsurance and the Life & Health Reinsurance segments of the Swiss Re Group without giving effect to items included under "Other" in the Swiss Re Group segment presentation (which encompasses non-core activities) and under "Consolidation" (which encompasses internal and external retrocession and other intra-group arrangements).

We use non-GAAP financial measures in our external financial reporting. These measures are not prepared in accordance with U.S. GAAP or any other comprehensive set of accounting rules or principles, and should not be viewed as a substitute for measures prepared in accordance with U.S. GAAP. Moreover, these may be different from or otherwise inconsistent with non-GAAP financial measures used by other companies. These measures have inherent limitations, are not required to be uniformly applied and are not audited.

References in this Offering Memorandum to "U.S. dollars," "USD" and "$" are to the lawful currency of the United States, references to "Swiss francs" and "CHF" are to the lawful currency of Switzerland and references to "€," "euro" and "euros" are to the single currency of the participating member states in the Third Stage of European Economic and Monetary Union of the Treaty Establishing the European Community, as amended from time to time.

Cautionary Note on Forward-Looking Statements

Certain statements contained in this Offering Memorandum are forward-looking. These statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to a historical fact or current fact. Forward-looking statements typically are identified by words or phrases such as "anticipate," "assume," "believe," "continue," "estimate," "expect," "foresee," "intend," "may increase" and "may fluctuate" and similar expressions or by future or conditional verbs such as "will," "should," "would" and "could." These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results of operations, financial condition, solvency ratios, liquidity position or prospects to be materially different from any future results of operations, financial condition, solvency ratios, liquidity position or prospects expressed or implied by such statements. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this Offering Memorandum. Among the key factors that have a direct bearing on our results of operations, financial condition, solvency ratios, liquidity position or prospects are:

- the frequency, severity and development of insured claim events, particularly natural catastrophes, man-made disasters, pandemics, acts of terrorism and acts of war;
- mortality, morbidity and longevity experience;
- the cyclicality of the reinsurance sector;
- instability affecting the global financial system;
- deterioration in global economic conditions;
- the effect of market conditions, including the global equity and credit markets, and the level and volatility of equity prices, interest rates, credit spreads, currency values and other market indices, on our investment assets;

- changes in our investment result as a result of changes in our investment policy or the changed composition of our investment assets, and the impact of the timing of any such changes relative to changes in market conditions;
- our ability to maintain sufficient liquidity and access to capital markets, including sufficient liquidity to cover potential recapture of reinsurance agreements, early calls of debt or debt-like arrangements and collateral calls due to actual or perceived deterioration of our financial strength or otherwise;
- any inability to realize amounts on sales of securities on our balance sheet equivalent to their values recorded for accounting purposes;
- changes in legislation and regulation, and the interpretations thereof by regulators and courts, affecting us or our ceding companies, including as a result of shifts away from multilateral approaches to regulation of global operations;
- the outcome of tax audits, the ability to realize tax loss carryforwards and the ability to realize deferred tax assets (including by reason of the mix of earnings in a jurisdiction or deemed change of control), which could negatively impact future earnings, and the overall impact of changes in tax regimes on our business model;
- failure of our hedging arrangements to be effective;
- the lowering or loss of one of the financial strength or other ratings of one or more companies in the Guarantor Group, and developments adversely affecting our ability to achieve improved ratings;
- uncertainties in estimating reserves;
- policy renewal and lapse rates;
- uncertainties in estimating future claims for purposes of financial reporting, particularly with respect to large natural catastrophes and certain large man-made losses, as significant uncertainties may be involved in estimating losses from such events and preliminary estimates may be subject to change as new information becomes available;
- extraordinary events affecting our clients and other counterparties, such as bankruptcies, liquidations and other credit-related events;
- legal actions or regulatory investigations or actions, including those in respect of industry requirements or business conduct rules of general applicability;
- changes in accounting standards;
- significant investments, acquisitions or dispositions, and any delays, unexpected costs, lower-than-expected benefits, or other issues experienced in connection with any such transactions;
- changing levels of competition, including from new entrants into the market; and
- operational factors, including the efficacy of risk management and other internal procedures in managing the foregoing risks.

See "Risk Factors" for additional details.

These factors are not exhaustive. Because these factors could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by or on our behalf, you should not place undue reliance on any of these forward-looking statements. Further, any forward-looking statement speaks only as of the date of this Offering Memorandum. Except as may be required by applicable law, stock exchange rules or regulations, we expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. New factors emerge from time to time, and it is not possible to predict which will arise. In addition, we cannot assess the effect of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those described in any forward-looking statement.

Summary

This overview highlights selected information from this Offering Memorandum. It is not complete and does not contain all of the information that you should consider before investing in the Notes. The overview should be read in conjunction with, and is qualified in its entirety by, the more detailed information included or incorporated by reference in this Offering Memorandum, including the Financial Statements incorporated by reference in this Offering Memorandum. You should read carefully the entire Offering Memorandum to understand our business, the nature and terms of the Notes and the tax and other considerations that are important to your decision to invest in the Notes, including the risks discussed under "Risk Factors." In addition, certain statements include forward looking information that involves risks and uncertainties. See "Cautionary Note on Forward-Looking Statements."

Overview of the Guarantor Group

We are a leading and diversified global reinsurer, and are part of the Swiss Re Group. We operate through offices in more than 20 countries, providing expertise and services to clients throughout the world. We have been engaged in the reinsurance business since our foundation in Zurich, Switzerland in 1863. We offer a comprehensive range of reinsurance and insurance-based solutions to manage risk and capital, with a focus on accessing, transforming and transferring insurable risks. Our traditional reinsurance products and related services for property and casualty, together with our life and health business, are complemented by insurance-based capital markets solutions and supplementary services for comprehensive risk management.

At and for the year ended December 31, 2018, we reported:

- premiums earned of $28.8 billion;
- total assets of $144.1 billion;
- shareholder's equity of $14.8 billion; and
- total investments of $85.7 billion.

Of our premiums earned in 2018, $16.1 billion, or 56%, represented Property & Casualty Reinsurance premiums earned, $12.7 billion, or 44%, represented Life & Health Reinsurance premiums earned.

We are recognized as a leading authority in managing capital and risk, based on our core competencies of:

- risk transfer, for which our objective is to identify, evaluate, underwrite and diversify risk to minimize the capital cost of carrying the risk;
- underwriting expertise, based on cycle management and portfolio steering; and
- asset management, which combines asset-liability management ("ALM") skills and financial market knowledge.

We provide property & casualty and life & health clients and brokers with reinsurance products, insurance-based capital market solutions and risk management services. Our traditional reinsurance underwriting skills include a wide range of property & casualty and life & health products and related services. In addition, we provide solutions that have insurance risks embedded in capital markets structures, including securitization and trading of insurance risks, where we have a leading market position. Our global reach enables us to offer our expertise and products to a range of clients throughout the world.

We offer a range of traditional reinsurance products and also focus on promoting innovation and development of new risk transfer solutions through our Property & Specialty (property, credit and surety, natural catastrophe, as well as engineering, aviation and marine), Casualty (liability and motor) and Life & Health divisions. We deploy our underwriting knowledge and expertise to analyze the risks we underwrite and to develop the criteria for risk pricing in our life and non-life businesses.

SRZ is currently rated "AA-" (stable outlook) by Standard & Poor's Financial Services LLC ("**S&P**"), "Aa3" (stable outlook) by Moody's Investors Service, Inc. ("**Moody's**") and "A+" (stable outlook) by A.M. Best, which are generally considered to be significant rating agencies with respect to the evaluation of insurance and reinsurance companies.

Summary Reported Results

Guarantor Group

The following table sets out figures for the Guarantor Group as well as for the Reinsurance Business Unit as of the dates and for the periods indicated:

	As of and for the year ended December 31,		
	Guarantor Group		Reinsurance Business Unit[1]
	2017	2018	2018
	($ in millions) (audited)		
Premiums earned	28,525	28,778	28,778
Fee income from policyholders	130	154	152
Total expenses before interest expenses	(31,193)	(30,117)	(29,828)
Net income/(loss) attributable to common shareholder	(1)	970	1,131
Shareholder's equity	18,262	14,764	15,757
EBIT[2]	800	1,825	2,122
Total assets	150,118	144,089	141,736
Total investments	89,716	85,657	88,215[3]

(1) Differences between the Guarantor Group and the Reinsurance Business Unit are attributable to the fact that for the Reinsurance Business Unit, the Swiss Re Group aggregates the Property & Casualty Reinsurance and the Life & Health Reinsurance segments of the Swiss Re Group without giving effect to items included under "Other" in the Swiss Re Group segment presentation (which encompasses non-core activities) and under "Consolidation" (which encompasses internal and external retrocession and other intra-group arrangements).

(2) EBIT represents income/loss before interest and income tax expense.

(3) Does not include cash and cash equivalents; with cash and cash equivalents the total would be $91,571 million. The following table sets forth the breakdown of the investment portfolio on a Reinsurance Business Unit basis (including cash and cash equivalents):

	As of December 31, 2018	
	Property & Casualty Reinsurance	Life & Health Reinsurance
	($ in billions) (unaudited)	
Cash and cash equivalents	1.7	1.7
Short-term investments	2.5	1.2
Government bonds	25.8	13.1
Credit bonds	10.2	16.1
Equities[1]	3.2	0.7
Mortgages and other loans	7.5	1.8
Other investments (including policy loans)	4.4	1.3
Investments for unit-linked business	--	0.4
Total	**55.3**	**36.3**

(1) Includes equity securities, private equity and Principal Investments and Acquisitions.

The following table sets forth key financial statement line items for our Property & Casualty Reinsurance segment and the Life & Health Reinsurance segment for the periods indicated.

	Year ended December 31,	
	2017	2018
	($ in millions) *(audited, unless otherwise indicated)*	
Property & Casualty Reinsurance		
Premiums earned	16,667	16,095
Total revenues	18,345	17,495
Claims and claim adjustment expenses	(13,172)	(11,614)
Total expenses before interest expenses	(18,584)	(16,740)
Net income/(loss) attributable to common shareholder[(1)]	(413)	370
Net operating margin (%)[(2)] (unaudited)	(1.3)	4.3
EBIT[(3)]	(239)	755
Life & Health Reinsurance		
Premiums earned and fee income from policyholders	11,980	12,835
Total revenues	13,963	14,455
Life and health benefits	(9,211)	(10,280)
Total expenses before interest expenses	(12,148)	(13,088)
Net income attributable to common shareholder[(4)]	1,092	761
Net operating margin (%)[(2)] (unaudited)	13.1	9.4
EBIT[(3)]	1,815	1,367

(1) Excluding the impact of a change in a U.S. GAAP accounting standard on recognition and measurement of financial instruments effective January 1, 2018 (the "**US GAAP Accounting Change**"), which requires changes in fair value of equity securities and certain alternative investments to now be recorded in the income statement, net income would have been $547 million.

(2) Net operating margin is calculated as income/loss before interest and income tax expense divided by total operating revenues. Total operating revenues are total revenues excluding unit-linked and with-profit revenues.

(3) EBIT represents income/loss before interest and income tax expense.

(4) Excluding the impact of US GAAP Accounting Change, net income would have been $829 million.

SST Ratios

The following table sets forth the components of the Swiss Re Group and SRZ solo SST ratios as reported to FINMA in April 2016 (as of January 1, 2016), April 2017 (as of January 1, 2017) and April 2018 (as of January 1, 2018), and as expected to be reported to FINMA in April 2019 (as of January 1, 2019). The information for SST 2019 is based on currently available figures and may differ from the information included in the final Swiss Re Group SST 2019 report. See generally, "Swiss Re Group Risk and Capital Management."

	SST 2016[(1)]		SST 2017		SST 2018		SST 2019	
	Swiss Re Group[(2)]	SRZ Solo	Swiss Re Group[(3)]	SRZ Solo	Swiss Re Group[(4)]	SRZ Solo	Swiss Re Group[(5)]	SRZ Solo
	(unaudited)							
SST risk-bearing capital (RBC) *($ in billions)*	50.1		51.3		52.3		47.6	
SST target capital (TC) *($ in billions)*	22.5		22.8		23.2		23.2	
SST ratio [(6)] *(%)*	261	237	262	237	269	252	251[(7)]	218[(8)]

(1) Based on the changed FINMA methodology for calculating the SST ratio that became effective January 1, 2017. Under the prior methodology, the Swiss Re Group's SST ratio as reported to FINMA in 2016 would have been 223% and the SRZ solo SST ratio as reported to FINMA in 2016 would have been 219%.

(2) Market Value Margin ("**MVM**") of $5.3 billion. MVM represents the minimum cost of holding capital after the one-year SST period until the end of a potential run-off period.

(3) MVM of $5.2 billion.

(4) MVM of $5.9 billion.

(5) MVM of $7.0 billion.

(6) Calculated by dividing SST risk-bearing capital ("**RBC**") less MVM by SST Target Capital ("**TC**") less MVM, where MVM is equal to the cost of capital of the present value of future regulatory capital associated with the relevant pool of assets and liabilities.

(7) The following table sets forth the estimated impact on the Swiss Re Group's SST ratio as reported to FINMA in 2019 of various stress events:

Equity markets (-25%)	248%
Equity markets (+25)	254%
Interest rates (-50 basis points)	239%
Interest rates (+50 basis points)	261%
Credit spreads (-50 basis points)	244%
Credit spreads (+50 basis points)	259%
Real estate (-25%)	245%
Real estate (+25%)	257%

(8) Represents an excess of $14.3 billion above the 100% regulatory capital requirement. SRZ's solo SST ratio will be subject to sensitivities in stress scenarios that are a subset of, but substantially similar, to those that affect the Swiss Re Group's SST ratio.

The Issuer

Swiss Re Finance (Luxembourg) S.A., a public limited liability company (*société anonyme*) incorporated and existing under the laws of Luxembourg, with its registered office at 2A, rue Albert Borschette, L-1246 Luxembourg and registered with the Luxembourg trade and companies register under number B90713 ("SRFL") was incorporated on December 27, 2002 for an unlimited duration with limited liability under the laws of the Grand Duchy of Luxembourg. SRFL was registered with the Luxembourg trade and companies register (*Registre de commerce et des sociétés, Luxembourg*) on January 20, 2003. It is a wholly-owned subsidiary of Swiss Re Europe Holdings S.A., which is a wholly-owned subsidiary of SRZ.

SRFL's telephone number is +352 261 216 30.

Terms of the Notes, the Subordinated Guarantee and Related Provisions

The summary below describes the principal terms of the Notes and related matters. Certain of the terms and conditions described below are subject to important limitations and exceptions. The "Terms and Conditions" section of this Offering Memorandum contains the full terms and conditions of the Notes, including the definitions of certain terms used in this summary.

Issuer	Swiss Re Finance (Luxembourg) S.A., a public limited liability company (*société anonyme*) incorporated and existing under the laws of Luxembourg, with its registered office at 2A, rue Albert Borschette, L-1246 Luxembourg and registered with the Luxembourg trade and companies register under number B90713.
Guarantor	Swiss Reinsurance Company Ltd.
Notes	€750,000,000 Guaranteed Subordinated Fixed Rate Reset Step-up Callable Notes.
Status of the Notes	The Issuer's obligations under the Notes constitute unsecured and subordinated obligations ranking junior to the Issuer's obligations under any Issuer Senior Securities, *pari passu* among themselves and with the Issuer's obligations under any Issuer Parity Securities, and senior to the Issuer's obligations under the Issuer Junior Securities.

In the event of the liquidation, dissolution, insolvency, compromise, composition with creditors (*concordat préventif de la faillite*), bankruptcy (*faillite*), controlled management proceedings (*gestion controlée*), suspension of payment (*sursis de paiement*), provisional administration (*administration provisoire*) or other similar proceeding for the avoidance of insolvency of, or against, the Issuer, the claims of Noteholders in respect of the Notes will be subordinated to the claims of all creditors in respect of Issuer Senior Securities, so that in any such event no amounts shall be payable in respect of the Notes unless the claims of all creditors in respect of Issuer Senior Securities shall have first been satisfied in full.

Where:

"**Issuer Junior Securities**" means:

(a) any perpetual subordinated securities of the Issuer;

(b) any other securities or obligations of the Issuer ranking or expressed to rank junior to the Notes; and

(c) all classes of share capital of the Issuer.

"**Issuer Parity Securities**" means any dated subordinated securities of the Issuer and other securities or obligations of the Issuer, ranking or expressed to rank *pari passu* with the Notes, including a guarantee or support (or any similar) agreement issued or entered into by the Issuer which ranks or is expressed to rank *pari passu* with the Notes.

"**Issuer Senior Securities**" means:

(a) any securities or other obligations (including any

unsubordinated securities) of the Issuer, except those ranking or expressed to rank junior to or *pari passu* with the Notes, including a guarantee or support (or any similar) agreement issued or entered into by the Issuer which ranks or is expressed to rank junior to or *pari passu* with the Notes; and

(b) for the avoidance of doubt but without limitation, obligations of the Issuer in respect of trade accounts payable, any liability for income, franchise, real estate or other taxes owed or owing to unsubordinated creditors, except those ranking or expressed to rank junior to, or *pari passu* with, the Notes.

Status of the Subordinated Guarantee....... The Guarantor's obligations under the Subordinated Guarantee constitute unsecured and subordinated obligations ranking junior to the Guarantor's obligations under any Guarantor Senior Securities, *pari passu* with the Guarantor's obligations under any Guarantor Parity Securities, and senior to the Guarantor's obligations under the Guarantor Junior Securities.

In the event of the liquidation, dissolution, insolvency, compromise or other similar proceeding for the avoidance of insolvency of, or against, the Guarantor, the claims of the Noteholders in respect of the Subordinated Guarantee will be subordinated to the claims of all creditors in respect of Guarantor Senior Securities, so that in any such event no amounts shall be payable in respect of the Subordinated Guarantee until the claims of all creditors in respect of Guarantor Senior Securities shall have first been satisfied in full.

Each Noteholder shall, by virtue of holding a Note, be deemed to have accepted the terms of the Subordinated Guarantee.

Where:

"**Guarantor Junior Securities**" means:

(a) any perpetual subordinated securities of the Guarantor;

(b) any other securities or obligations of the Guarantor ranking or expressed to rank junior to the Subordinated Guarantee; and

(c) all classes of share capital of the Guarantor.

"**Guarantor Parity Securities**" means any dated subordinated securities of the Guarantor and other securities or obligations of the Guarantor, ranking or expressed to rank *pari passu* with the Subordinated Guarantee, including a guarantee or support (or any similar) agreement issued or entered into by the Guarantor which ranks or is expressed to rank *pari passu* with the Subordinated Guarantee.

"**Guarantor Senior Securities**" means:

(i) any securities or other obligations (including any unsubordinated securities) of the Guarantor, except those ranking or expressed to rank junior to or *pari passu* with the Subordinated Guarantee, including a guarantee or support (or any similar) agreement issued or entered into by the Guarantor which ranks or is expressed to rank junior to or *pari passu* with

the Subordinated Guarantee; and

(ii) for the avoidance of doubt but without limitation, obligations of the Guarantor in respect of policies of insurance or reinsurance, trade accounts payable, any liability for income, franchise, real estate or other taxes owed or owing to unsubordinated creditors, except those ranking or expressed to rank junior to, or pari passu with, the Subordinated Guarantee.

Aggregate Principal Amount of the Notes and Denomination	€750,000,000, consisting of Notes in minimum denominations of €100,000 and integral multiples of €100,000 in excess thereof.
Issue Price	100%.
Issue Date	March 21, 2019 (the "**Issue Date**").
Scheduled Maturity Date	April 30, 2050.
Issuer Call	Subject to the redemption/purchase limitations described below and to certain other conditions being met, the Issuer may at its discretion, redeem the outstanding Notes, in whole but not in part, in cash at their principal amount, together with any accrued and unpaid interest and any outstanding Deferred Interest, on April 30, 2030 (the "**First Optional Redemption Date**") and on any Reset Date thereafter (each, an "**Optional Redemption Date**"). *Where:* A "**Reset Date**" means the First Optional Redemption Date, and each anniversary of the First Optional Redemption Date.
Early Redemption Events	Subject to the redemption/purchase limitations described below and to certain other conditions being met, the Issuer may also redeem the outstanding Notes, in whole but not in part, in cash at their principal amount, together with any accrued and unpaid interest and any outstanding Deferred Interest upon the occurrence of a Recalculation Event or a Special Tax Event that is continuing, an Accounting Event, a Ratings Methodology Event or a Regulatory Event. *Where:* "**Accounting Event**" means that an opinion of a recognized accounting firm has been delivered to the Issuer or the Guarantor, stating that any outstanding Notes must not or must no longer be recorded as a liability on the Guarantor's consolidated balance sheet prepared in accordance with the accounting standards applied to such published consolidated accounts at the relevant dates and for the relevant periods and this cannot be avoided by the Issuer or the Guarantor taking such reasonable measures as the Issuer or the Guarantor (acting in good faith) deems appropriate. "**Special Tax Event**" means that an opinion of a recognized independent tax counsel has been delivered on or after the Issue Date

to (i) the Issuer stating that, due to a change in law, ruling or interpretation, the Issuer is, or there is more than an insubstantial risk that the Issuer will be, no longer able to obtain a tax deduction for the purposes of Luxembourg corporation tax for any payment of interest on the Notes and this cannot be avoided by the Issuer taking such reasonable measures as it (acting in good faith) deems appropriate; or (ii) the Guarantor, stating that, due to a change in law, ruling or interpretation, the Guarantor is, or there is more than an insubstantial risk that the Guarantor will be, no longer able to obtain a tax deduction for purposes of Swiss corporation tax for any payment of interest under the Subordinated Guarantee and this cannot be avoided by the Guarantor taking such reasonable measures as it (acting in good faith) deems appropriate.

"**Ratings Methodology Event**" means a change by a nationally recognized statistical rating organization to its equity credit criteria, or the interpretation or application thereof, for securities such as the Notes, which change results in a lower equity credit being given to the Notes as of the date of such change than the equity credit assigned to the Notes at or around the Issue Date.

"**Recalculation Event**" means that an opinion of a recognized independent tax counsel has been delivered to the Issuer or the Guarantor confirming (i) the occurrence of a Recalculation of Interest (as defined in the Conditions) or (ii) that the Issuer or the Guarantor, as applicable, is required pursuant to the Conditions to pay Additional Amounts (as defined in the Conditions) in respect of the Notes and this cannot be avoided by the Issuer or the Guarantor taking such reasonable measures as the Issuer or the Guarantor (acting in good faith) deems appropriate.

"**Regulatory Event**" means the occurrence on or after the Issue Date of any of the following events, which occurrence cannot be avoided by the Guarantor taking such reasonable measures as it (acting in good faith) deems appropriate:

(a) FINMA notifies the Guarantor or otherwise states that (a) any outstanding Notes do not, or will not, fulfil the requirements of at least Tier 2 Capital, or equivalent thereof, for group or, if applicable, solo solvency purposes and (b) 100% of the principal amount of any outstanding Notes is not, or will not be, counted as at least Tier 2 capital or equivalent thereof, for group or, if applicable, solo solvency purposes, under any applicable transitional or grandfathering provisions, or

(b) FINMA affords any outstanding Notes recognition as at least Tier 2 Capital, or equivalent thereof, for group or, if applicable, solo solvency purposes, and at a subsequent time FINMA issues further guidance in relation to qualifying instruments for group or, if applicable, solo solvency purposes (by way of law, ordinance, regulation or a published interpretation thereof), and following which, notifies the Guarantor or otherwise states that (i) any outstanding Notes no longer, or will no longer, fulfil the requirements of at least Tier 2 Capital, or equivalent thereof, for group or, if applicable, solo solvency purposes

and (ii) 100% of the principal amount of any outstanding Notes is not, or will not be, counted as at least Tier 2 capital or equivalent thereof, for group or, if applicable, solo solvency purposes, under any applicable transitional or grandfathering provisions.

Any reference in this definition to a statutory provision shall include any amendments to such provision from time to time and any successor provision.

"**Tier 2 Capital**" means all items classified as tier two capital ("*Ergänzendes Kapital*") of the Guarantor or the Guarantor Group, as defined in the Swiss laws, rules and regulations (including the regulations of FINMA), at the relevant time, comprising upper additional capital ("*oberes ergänzendes Kapital*") and lower additional capital ("*unteres ergänzendes Kapital*").

Purchase of Notes .... The Issuer, the Guarantor or their respective affiliates may at any time (subject to the redemption/purchase limitations described below) purchase any Notes in the open market or otherwise and at any price. Such acquired Notes may be cancelled (by surrendering the Notes to the Agent (as defined in the Conditions)), held or resold. All Notes so cancelled cannot be reissued or resold.

Redemption/Purchase Limitations .... Any redemption or purchase of the outstanding Notes is subject to:

(i) no Solvency Event having occurred that is continuing at the time of delivery of the relevant Early Redemption Notice or Optional Redemption Notice in the case of a redemption under Condition 4.2 or 4.3, respectively, or the time of purchase, in the case of a purchase under Condition 4.4 (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured);

(ii) FINMA having given such consent, approval or non-objection (if any) as is required under relevant rules and regulations ("**Consent**") to the redemption or purchase; and

(iii) in the case of a redemption or purchase that is within five years of the Issue Date, and if so required at the relevant time by any rules and regulations then applicable to the Guarantor, such redemption or purchase being (a) funded out of the proceeds of a new issuance of capital of at least the same quality as the Notes and (b) otherwise permitted under relevant rules and regulations.

Substitution .... The Issuer (or any previous substitute of the Issuer under Condition 9) may, without the consent of the Noteholders, and provided that no Accounting Event, Special Tax Event, Recalculation Event, Ratings Methodology Event or Regulatory Event would be triggered by such substitution, be substituted in respect of all rights and obligations arising under or in connection with the Notes by a Parent or any company all of whose shares carrying voting rights are directly or indirectly held by a Parent (the "**New Issuer**"), *provided* that:

(i) the Subordinated Guarantee continues to apply mutatis mutandis in respect of the obligations of the New Issuer under the Notes

or, if the Subordinated Guarantee cannot continue to apply mutatis mutandis in respect of the obligations of the New Issuer under the Notes and a replacement subordinated guarantee is required, the Guarantor has issued its irrevocable subordinated guarantee as per article 111 of the Swiss Federal Code of Obligations in respect of the obligations of the New Issuer under the Notes which subordinated guarantee shall, on a winding up of the Guarantor, have a pari passu ranking with the obligations of the Guarantor under the Subordinated Guarantee prior to the substitution of the Issuer on terms and with effect being not materially less favorable; and

(ii) if the New Issuer is a company resident for tax purposes in a New Residence, certain other requirements set forth in the Conditions are also met.

Where:

"**New Residence**" means a jurisdiction other than Luxembourg where a company is resident for tax purposes.

In addition, any substitution is subject to (a) if required, the Issuer and/or the Guarantor giving prior written notice to, and receiving no objection from, FINMA; and (b) certification being provided by two duly authorized officers of the Issuer stating that the conditions precedent in Condition 9 have been complied with.

If the New Issuer is a company resident for tax purposes in a New Residence, the following conditions shall also be met: (a) the Notes then outstanding would constitute legal, valid and binding obligations in the New Residence of such New Issuer; (b) under the applicable laws and regulations in effect at the date of the substitution, the New Issuer would not be obligated to make any withholding or deduction on any payments in respect of the Notes beyond any withholding or deduction already applicable to payments made by the Issuer in respect of the Notes prior to the substitution (in case such withholding or deduction is introduced after a substitution, the following paragraph will apply); and (c) the Subordinated Guarantee or, if applicable, the replacement subordinated guarantee to be provided by the Guarantor according to Condition 9(a)(i) explicitly also guarantees, on a subordinated basis, the payment to the Noteholders of any Additional Amounts payable by the New Issuer at any time after substitution.

If the New Issuer is resident for tax purposes in a New Residence, the provisions of Condition 6 shall apply, with the substitution of references to Luxembourg in the definition of "Residency Country" with references to the New Residence.

In the event of a substitution, any reference in the Conditions (other than Conditions 3 and 4, in each case with respect to a Solvency Event) to the Issuer shall be a reference to the New Issuer and if the New Issuer is resident for tax purposes in a New Residence, any reference to Luxembourg shall be a reference to the New Residence.

Interest .... Subject to the interest deferral provisions described below, the outstanding Notes will bear interest at a fixed rate of 2.534% per annum in the Initial Interest Period and thereafter, in respect of each Interest Period falling within a Reset Period at the relevant Reset Rate

of Interest for such Reset Period (together, the relevant "**Rate of Interest**"), payable annually in arrear on April 30 in each year (each, an "**Interest Payment Date**") commencing April 30, 2019 (the short first Interest Period).

The Interest Amount payable in respect of each Interest Period falling within the Initial Interest Period other than the short first Interest Period will be €25.34 per €1,000 in principal amount of each Note (the "**Calculation Amount**")). The Interest Amount payable in respect of the short first Interest Period will be €2.78 per Calculation Amount.

Where:

"**Reset Rate of Interest**" means the Reset Rate for a Reset Period plus the Margin.

"**Reset Rate**" means, in respect of a Reset Period, the 1-year Mid-Swap Rate determined by the Agent Bank (as defined in the Conditions) in accordance with the Conditions for such Reset Period.

"**Reset Period**" means each period from (and including) a Reset Date to (but excluding) the next succeeding Reset Date

"**Margin**" means 2.85% per annum.

"**1-year Mid-Swap Rate**" has the meaning given to it in the Conditions.

Recalculation of Interest	If a tax deduction or withholding (collectively, a "**Tax Deduction**") is required by law to be made by the Issuer or the Guarantor in respect of any Interest Amount payable in respect of the Notes or the Subordinated Guarantee, as applicable, and should Condition 6.1(a) (or, in the event of a substitution pursuant to Condition 9, Condition 9(d) read with Condition 6.1(a)) be unlawful for any reason, the applicable Rate of Interest in relation to the Interest Amounts payable for the relevant Interest Period will, subject to the exceptions in Condition 6.1(b) (or, in the event of a substitution pursuant to Condition 9, Condition 9(d) read with Condition 6.1(b)), be the Rate of Interest which would have otherwise been payable for the relevant Interest Period divided by 1 minus the rate (as a fraction of l) at which the relevant Tax Deduction is required to be made and the Issuer or the Guarantor, as applicable, will (i) be obligated to pay the relevant Interest Amount on the relevant Interest Payment Date at the adjusted rate in accordance with Condition 3.3 and (ii) make the Tax Deduction on the recalculated Interest Amount.
Interest Accrual	The Notes will cease to bear interest from the day on which they become due for redemption in accordance with the Conditions. If the Issuer or the Guarantor, as applicable, fails to redeem or repay the Notes when due in accordance with the Conditions, interest will continue to accrue (both before and after judgment) on their outstanding principal amount beyond the due date up to (but excluding) the day of the actual redemption or repayment of the

Notes, as applicable, at the applicable Rate of Interest.

Optional Deferral Trigger .... Save to the extent that a Required Interest Deferral Event has occurred, the Issuer may, with respect to any Interest Payment Date, elect in its sole discretion to defer all or a part of the payments of interest which accrued (and, in the case of a partial deferral, such deferral will be made on a *pro rata* basis across all Notes) during the applicable Interest Period to (but excluding) such Interest Payment Date (such deferred interest constituting "**Optionally Deferred Interest**") if during the six months preceding the relevant Reference Date:

(i) no dividend, other distribution or payment was declared or made in respect of (A) any class of share capital of a Parent or (B) any Issuer Junior Securities or Guarantor Junior Securities (except where such payment was required under the terms of those Issuer Junior Securities or Guarantor Junior Securities, as the case may be);

(ii) no repurchase or acquisition of any class of share capital of a Parent (except where such repurchase or acquisition was made in respect of any share-based compensation plan or where such repurchase or acquisition was made by any member of Guarantor Group or a Parent Group on the open market in the ordinary course of its routine capital management) or any Issuer Junior Securities or Guarantor Junior Securities was made by any member of the Guarantor Group or a Parent Group, either directly or indirectly; and

(iii) provided that at the relevant time the existence of the Condition on optional deferral of interest does not cause the Notes to become Non-Compliant Securities: (A) no dividend, other distribution or payment was declared or made in respect of any Issuer Parity Securities or Guarantor Parity Securities (except where such payment was required under the terms of those Issuer Parity Securities or Guarantor Parity Securities, as the case may be) and (B) no repurchase or acquisition of any Issuer Parity Securities or Guarantor Parity Securities was made by any member of the Guarantor Group or a Parent Group, either directly or indirectly.

Where:

"**Guarantor Group**" means the Guarantor and its consolidated subsidiaries.

"**Non-Compliant Securities**" means securities which would not be eligible for regulatory capital treatment as at least Tier 2 Capital or equivalent thereof for group or, if applicable, solo solvency purposes.

"**Parent**" means an entity, if any, that at the Reference Date (a) holds directly or indirectly at least a majority of the common or ordinary shares of the Guarantor and (b) has common or ordinary shares listed on an internationally recognized stock exchange.

"**Parent Group**" means a Parent and its consolidated subsidiaries.

"**Reference Date**" means the 10th Business Day preceding the relevant Interest Payment Date, Early Redemption Date (if any) or Optional Redemption Date (if any), as the case may be.

Required Interest Deferral Event .... The Issuer will be required to defer payment of any Interest Amount or Solvency Shortfall, as applicable, if, in respect of an Interest Payment Date, a Solvency Event has occurred and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) or would occur as a result of such payment (a "**Required Interest Deferral Event**").

For the avoidance of doubt, if on an Interest Payment Date a Solvency Event (i) has occurred and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) or (ii) would occur as a result of payment of the relevant Interest Amount, the Issuer will be required, save as stated above, to defer payment of that Interest Amount; *provided* that in the case of (ii), the Issuer will only be required to defer the Solvency Shortfall.

Where:

"**Assets**" means (i) in respect of the Issuer, the Issuer's unconsolidated total assets, as shown in its latest audited balance sheet, but adjusted for all subsequent events, as reasonably determined by the Issuer or, if a liquidation procedure has been instigated, by the liquidator and (ii) in respect of the Guarantor, the Guarantor's unconsolidated total assets, as shown in its latest audited balance sheet, but adjusted for all subsequent events, as reasonably determined by the Guarantor or, if a liquidation procedure has been instigated, by the liquidator.

"**Interest Amount**" means, with respect to any Interest Payment Date, the amount of interest that would be payable on the aggregate principal amount of Notes outstanding or on each Calculation Amount, as applicable, on such Interest Payment Date.

"**Liabilities**" means (i) in respect of the Issuer, the Issuer's unconsolidated total liabilities, as shown in its latest audited balance sheet, but adjusted for all subsequent events, as reasonably determined by the Issuer, or if a liquidation procedure has been instigated, by the liquidator and (ii) in respect of the Guarantor, the Guarantor's unconsolidated total liabilities, as shown in its latest audited balance sheet, but adjusted for all subsequent events, as reasonably determined by the Guarantor or, if a liquidation procedure has been instigated, by the liquidator.

"**Required Solvency Margin**" means for group, or if applicable, solo solvency purposes, the required solvency margin (or a comparable term in case of a change in applicable rules) in accordance with the provisions of mandatorily applicable Swiss laws, regulations, rules and/or generally applied administrative practices of FINMA relating to the regulatory capital of insurers and reinsurers in Switzerland.

A "**Solvency Event**" shall have occurred if:

(i) the Guarantor or the Swiss Re Group, does not have appropriate funds to cover the Required Solvency Margin, or the amount of such funds would, as a result of a full or partial interest payment or redemption payment, as applicable, that would otherwise be due on an Interest Payment Date, Early Redemption Date (if any), Optional Redemption Date (if any) or the Final Maturity Date, respectively, be or become less than the Required Solvency Margin; or

(ii) the Issuer or the Guarantor has reasonable grounds for concern that it is unable to pay its debts as they fall due; or

(iii) the Issuer or the Guarantor has reasonable grounds for concern that its Assets do not exceed its Liabilities; or

(iv) FINMA has given (and not withdrawn) notice to the Issuer or the Guarantor that as a result of the financial, capital and/or solvency position of the Issuer and/or the Guarantor, the payment of an interest or redemption amount in whole or in part must be deferred.

"**Solvency Shortfall**" means the portion of the Interest Amount that, if paid, would cause a Solvency Event to occur or be continuing.

Deferred Interest Payments....................... Any amounts of deferred interest following a Required Interest Deferral Event together with any Optionally Deferred Interest are referred to herein as "**Deferred Interest**" and will not themselves bear interest.

The Issuer is entitled to pay Deferred Interest (in whole or in part) at any time on giving not less than 10 Business Days' notice to the Noteholders in accordance with Condition 12, which notice will specify the amount of Deferred Interest to be paid and the date fixed for such payment (the "**Optional Deferred Interest Payment Date**") (whereupon such Deferred Interest shall become due and payable on such date fixed for payment), provided that (A) no Solvency Event has occurred and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured); and (B) FINMA has given its Consent. Upon such notice being given, the amount of Deferred Interest specified therein will become due and payable, and the Issuer will be obliged to pay such amount of Deferred Interest on the specified Optional Deferred Interest Payment Date, provided that no Solvency Event has occurred or would occur due to the payment of the Deferred Interest on or prior to the Optional Deferred Interest Payment Date and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) on the Optional Deferred Interest Payment Date.

Deferred Interest shall become due and payable (in whole but not in part) on the first to occur of the following dates:

(i) the next Compulsory Interest Payment Date;

(ii) the Early Redemption Date, in the case of redemption of the Notes prior to the Final Maturity Date pursuant to

Condition 4.2;

(iii) the Optional Redemption Date, in the case of redemption of the Notes prior to the Final Maturity Date pursuant to Condition 4.3;

(iv) the Final Maturity Date; or

(v) the calendar day on which an order is made for the winding-up, dissolution or liquidation of the Issuer or the Guarantor (other than for the purposes of or pursuant to an amalgamation, reorganization or restructuring while solvent, where the continuing entity assumes substantially all of the assets and obligations of the Issuer or the Guarantor, as applicable).

Where:

"**Compulsory Interest Payment Date**" means any Interest Payment Date on which (i) the Issuer does not elect to, or is not permitted to, defer payment of interest pursuant to Condition 3.4(b) and (ii) no Required Interest Deferral Event has occurred or is continuing.

Enforcement .... (i) If default is made in the payment of any principal or interest due and payable in respect of the Notes and such default continues for a period of (a) in the case of principal, 10 days after the due date for the same; and (b) in the case of interest, 30 days after the due date for the same, each Noteholder may, in respect of its Notes and subject as provided below, at its discretion and without further notice, institute proceedings for the winding up of the Issuer or the Guarantor, as applicable, in the Residency Country (but not elsewhere) but may take no further action in respect of such default.

(ii) If, otherwise than for the purposes of a reconstruction, amalgamation, merger or other similar transaction on terms previously approved in writing by an Extraordinary Resolution of the Noteholders, an order is made or an effective resolution is passed for the winding up of the Issuer or the Guarantor in the Residency Country (but not elsewhere), each Noteholder may, subject as provided below, at its discretion, give notice to the Issuer and the Guarantor that its Note is, and it shall accordingly thereby forthwith become, immediately due and repayable at its principal amount, plus accrued but unpaid interest and any outstanding Deferred Interest but may take no further action in respect of such payment.

(iii) No remedy against the Issuer or the Guarantor, other than as referred to in Condition 10, shall be available to Noteholders to enforce any payment obligations in respect of the Notes.

(iv) Without prejudice to paragraphs (i) and (ii) above, each Noteholder may institute such proceedings against the Issuer or the Guarantor as it may think fit to enforce any obligation, condition or provision binding on the Issuer under the Notes (other than any payment obligations in respect of the Notes) or the Guarantor under the Subordinated Guarantee (other than any payment obligations in respect of the Subordinated Guarantee),

provided that the Issuer or the Guarantor, as applicable shall not as a consequence of such proceedings be obliged to pay any sum or sums sooner than the same would otherwise have been payable by it pursuant to the Conditions or any damages.

Where:

"**Extraordinary Resolution**" means (i) a resolution passed at a meeting duly convened and held in accordance with the Agency Agreement (as defined in the Conditions) by a majority consisting of not less than 75% of the votes cast on such resolution, or (ii) a resolution in writing signed by or on behalf of the holders of not less than 75% in aggregate principal amount of the Notes for the time being outstanding; or (iii) consent given by way of electronic consents through the relevant clearing system(s) (in a form satisfactory to the Agent) by or on behalf of the holders of not less than 75% in aggregate principal amount of the Notes for the time being outstanding.

"**Residency Country**" for the Issuer means Luxembourg, for the Guarantor, Switzerland, or in each case, any new country of domicile, and for any successor entity, the jurisdiction of its domicile.

Securities Law Restrictions .... The Notes and the Subordinated Guarantee have not been, and will not be, registered under the Securities Act or under the securities laws of any state of the United States or any other jurisdiction and may not be offered or sold in the United States or to, or for the account or benefit of, U.S. persons unless registered under the Securities Act or pursuant to an exemption from, or in a transaction not subject to, such registration. The Notes and the Subordinated Guarantee are not being offered in the United States or to, or for the account or benefit, of U.S. persons.

Listing .... Application has been made to admit the Notes to the Official List of the Luxembourg Stock Exchange and to trading on the Euro MTF Market of the Luxembourg Stock Exchange.

Governing Law/Jurisdiction .... The Agency Agreement and the Notes (except for the subordination provisions, which are governed by the laws of Luxembourg) and any non-contractual obligations arising out of or in connection with the Agency Agreement and the Notes are governed by, and shall be construed in accordance with, English law.

The Subordinated Guarantee is governed by, and shall be construed in accordance with, the substantive laws of Switzerland.

The provisions of articles 470-1 to 470-19 of the Luxembourg law of August 10, 1915 on commercial companies, as amended, shall not apply in respect of the Notes.

The courts of England are to have jurisdiction to settle any Proceedings (as defined in the Conditions) and accordingly any Proceedings may be brought in such courts. The Issuer irrevocably submits to the jurisdiction of the courts of England and waives any objection to Proceedings in such courts on the ground of venue or on the ground that the Proceedings have been brought in an inconvenient

forum.

Nothing contained in Condition 14.2 shall preclude the Noteholders from bringing any Proceedings against the Issuer in any other court of competent jurisdiction in Switzerland or Luxembourg (but not elsewhere), nor shall the taking of Proceedings in England preclude the taking of Proceedings in Switzerland or Luxembourg (or vice versa), whether concurrently or not.

Any legal action or proceeding in respect of the Subordinated Guarantee shall be brought exclusively in the courts of the City of Zurich (venue being Zurich 1), and, where the law permits, the Commercial Court of the Canton of Zurich with the right of appeal, where the law permits, to the Swiss Federal Supreme Court, the decision of which shall be final.

General .... The Conditions contain summaries of, and are subject to, the detailed provisions of the Agency Agreement, which includes the form of the Notes and provisions relating to transfer of Notes, payments in respect of Notes and the replacement of Notes. The Noteholders are entitled to the benefit of, are bound by and are deemed to have notice of, all provisions of the Agency Agreement applicable to them. Copies of the Agency Agreement are available for inspection by Noteholders during normal business hours at the specified office of the Agent.

Risk Factors

An investment in the Notes involves risks. You should carefully consider the following risk factors and the other information in this Offering Memorandum before making an investment decision. Any of the risk factors could impact our business, financial condition or results of operations. The market prices of the Notes could decline if one or more of these risks and uncertainties develop into actual events. You may lose all or part of your investment.

This Offering Memorandum also contains forward-looking statements that involve risks and uncertainties that could cause our actual results or outcomes to differ materially from those expressed in any such forward-looking statements, as a result of any factor or combination of factors, including but not limited to the risks we face as described below and elsewhere in this Offering Memorandum. For more information about forward-looking statements see "Cautionary Note on Forward-Looking Statements."

Risks Relating to our Operations

Our reserves may not adequately cover future claims and benefits.

Our results depend in large part upon the extent to which actual claims experience is consistent with the assumptions that we use in setting the prices for our products and in establishing our reserves, and we face risks that our reserves may prove to be inadequate to cover our actual claims and benefits experience.

We maintain reserves in our Property & Casualty Reinsurance lines to cover our estimated ultimate liability for claims and claim adjustment expenses for reported and unreported claims incurred as of the end of each accounting period. We also maintain reserves for future policy benefits for our Life & Health Reinsurance lines. Reserves do not represent an exact calculation of liability, but rather are estimates of the expected cost of the ultimate settlement of claims. These estimates are based on actuarial and statistical projections of facts and circumstances known at a given time and estimates of trends in claims severity, and other variable factors, including new bases of liability and general economic conditions, and can change over time. The process of estimating reserves and future policy benefits involves a high degree of judgment and is subject to a number of variables. These variables can be affected by both internal and external events, such as changes in claims handling procedures, economic inflation, foreign currency movements, legal trends and legislative or regulatory changes, among others. The impact of many of these items on ultimate costs for claims is difficult to estimate.

We continually review the adequacy of our established reserves, including emerging claims development, and actual claims compared to the original assumptions used to estimate reserves. Based on current information available to us, we believe that our reserves are sufficient. However, changes in trends or other variable factors underlying our reserve estimates could result in claims in excess of reserves. For example, our assumptions concerning future claims cost inflation could prove to be too low, resulting in higher claims. For some types of claims, most significantly asbestos-related, environmental pollution and health hazard claims and certain liability claims (namely, our long-tail exposures), it has been necessary, and may over time continue to be necessary, to revise estimated potential claims exposure and, therefore, the related claims reserves. Consequently, actual claims, benefits and related expenses paid may differ from estimates reflected in the reserves in our consolidated financial statements. Premium levels in our Life & Health Reinsurance business are often guaranteed for the life of a contract, which could be 30 years or more. If premium levels prove to be inadequate, we would make provision for the shortfall for the remaining lifetime of the contract. In addition, morbidity benefits are often payable over many years and there is uncertainty involved in estimating the number of years over which benefits will be paid. In general, mortality and morbidity-related products give rise to risks if mortality or morbidity increases above assumed levels, while longevity products give rise to risks if mortality decreases below assumed levels. In recent decades, mortality, longevity and morbidity rates have improved significantly and there is considerable uncertainty over the rate at which such rates will continue to improve in the future.

Additional claims may emerge, including claims arising from changes in the legal and regulatory environment, the type or magnitude of which we cannot foresee. Additional claims could also arise from changes in general economic conditions that impact companies whose obligations are backed by credit insurance or reinsurance or financial guarantees. In particular, the values of the life-related benefits under certain products and life contracts, most notably in our variable annuity ("**VA**") business, are tied to financial market values. These contracts have specific guarantees. As markets fall, the value of these guarantees increases, and, while we have

an extensive hedging program covering our existing VA business, there is a risk that market fluctuations could have a negative financial impact on our business.

There can be no assurance that going forward we will not experience adverse development. To the extent reserves are insufficient to cover actual claims, claim adjustment expenses or future policy benefits, we would have to add to these reserves and incur a charge to our earnings. In addition, there may be regulatory and/or legislative changes that impact our required reserve levels that we cannot anticipate and that may render our reserves insufficient. These insufficiencies in reserves could have a material adverse effect on our financial condition and results of operations.

Catastrophic events expose us to the risk of unexpected large losses.

A catastrophic event or multiple catastrophic events have caused, and may cause, unexpected large losses, and have had, and could have, a material adverse effect on our financial condition, results of operations, business and prospects. Natural catastrophes, such as hurricanes, windstorms, floods and earthquakes, and man-made disasters, such as acts of terrorism, cyber-attacks and other disasters such as explosions, industrial accidents and fires, as well as pandemics, are inherently unpredictable in terms of both their frequency and severity. We have generally believed, and continue to believe, that one or more catastrophic events that produce significant losses eventually will occur and there can be no assurances that our efforts to protect ourselves against catastrophic losses, such as the diversification of business written, the use of selective underwriting practices, the use of quantitative models, prudent reserving, the monitoring of risk accumulations and risk protection arrangements, will prove to be adequate.

Losses from natural catastrophes have been increasing in recent years due to increased concentration of economic activities and people living and working in areas with heightened exposure to natural catastrophes, particularly along coastlines, as well as weather-related events. Increasing insurance penetration, rapid urbanization, growing technological vulnerability and higher property values have further compounded our exposure. The potential occurrence of high severity events, such as Hurricane Sandy in the United States (2012); the German hailstorms and Canadian floods (2013); rain storms and flooding in the United Kingdom (2015); wildfires in Canada, earthquakes in Italy and New Zealand and Hurricane Matthew in the United States (2016); Atlantic hurricanes Harvey, Irma and Maria, earthquakes in Mexico, Cyclone Debbie in Australia, floods in Peru and wildfires in Northern and Southern California (2017); and the Camp and Woolsey fires and Hurricane Michael in the United States, and Typhoons Jebi and Trami in Japan (2018), with global insured industry losses in 2018 (estimated at over $70 billion for natural catastrophes and over $80 billion including man-made losses) representing the fourth highest annual industry losses on sigma records, is an integral part of our business, and providing cover for these natural catastrophes will remain fundamental to our value proposition.

The possible effects of natural catastrophes are compounded by the correlation between climate change and severe storms, floods and drought as well as adverse agricultural yields. The effects of global warming and climate change cannot be predicted and are likely to aggravate potential loss scenarios, risk modeling and financial performance. Furthermore, climate change could lead to extreme weather events spreading to parts of the world that have not previously experienced extreme weather conditions.

We are also subject to risks relating to man-made catastrophes. Complex technology intersecting with increased population density, infrastructure and higher rates of utilization of natural resources increase the likelihood and the magnitude of catastrophic man-made events. Man-made disasters involving chemical, biological or nuclear hazards in particular bear high potential for losses. In addition to man-made disasters caused by accident or negligence, we continue to face risks related to terrorist acts or other criminal acts on a significant scale (including acts intended to cause maximum strain on financial and other critical infrastructures, which, given reliance on complex technology, the increasing inter-connectedness of technologies symbolized by the "internet of things" and the proliferation of cloud-based technology, could be triggered by cyber threats). Our exposure to terrorism and similar acts arises from all lines of business to varying degrees. While we have established some basic limit frameworks and use quantitative modeling, there can be no assurances that our efforts to mitigate the impact of terrorism or similar acts will be successful.

We have significant exposure to mortality and morbidity risk through, for example, our Life & Health Reinsurance business covers. Consequently, an influenza pandemic is a material risk as it has the potential to impact all markets across the world. We believe that a pandemic, whether influenza or another infectious

disease, has the potential to affect a significant percentage of the world's population, causing a high level of sickness and an increase in mortality rates. See "Our Business – Reserves – Life & Health Reinsurance."

Rare, but potentially disastrous, risks have the potential to cause major systemic disruptions due to the interconnectedness of risks in a globalized economy reflecting the response of markets to natural catastrophes, terrorist attacks and the like and the challenges to mitigate them. The potential impact of these global risks will be a function of the extent to which mitigation strategies, emergency plans and education of risk awareness can be implemented on a systemic, global basis. There can be no assurance that such strategies can be effectively implemented.

Natural catastrophes are often seasonal with the highest proportion of annual losses occurring on average in the third quarter, followed by the fourth quarter and, as such, quarter to quarter comparisons can fluctuate. Due to their nature and possible delays in reporting man-made casualty losses to us, an adverse effect of a man-made casualty loss may not be recognized until some period after the occurrence of the loss. The ultimate impact of a catastrophic event or multiple catastrophic events on our financial condition, results of operations, business and prospects is difficult to predict and will be affected by a number of factors, including: the frequency of loss events; the severity of each event; the total amount of insured exposure in the area affected by each event; changes in the value of the insured property; the effects of inflation; and the extent of unemployment and other economic conditions caused by each event. To the extent we write more natural catastrophe covers, as we have begun to do in 2019, we can expect a greater impact in absolute terms of natural catastrophe losses on our results. The occurrence of natural and man-made catastrophes in the future could have a material adverse effect on our financial condition, results of operations, business and prospects.

The effects of emerging claim and coverage issues on our business are uncertain.

As industry practices and legal, judicial, social and other environmental conditions change, unexpected and unintended issues related to claims and coverage may emerge. Such issues may adversely affect our business by either requiring us to extend coverage beyond our underwriting intent or by increasing the number or size of claims. Examples of emerging claims and coverage issues have included and may in the future include:

- adverse changes in loss trends;
- judicial expansion of policy coverage and the impact of new theories of liability;
- legislative or judicial action that affects policy coverage or pricing (such as discount rates for calculation of bodily injury lump sum awards);
- potential new theories of liability advanced by plaintiffs or regulators;
- higher verdicts and settlements, particularly against corporate defendants, in respect of casualty claims;
- claims in respect of directors' and officers' coverage, professional indemnity and other liability covers;
- contingent business interruption exposure, where failure to understand an entire chain of production could give rise to unexpected claims affecting, for example, perils in high growth markets where manufacturing and production facilities are expanding;
- "wider area" damage claims in the context of business interruption, involving, for example, damage to infrastructure surrounding insured facilities and claims relating to constraints on the ability to supply, or transport goods from, such facilities;
- casualty claims in the context of property covers;
- trends toward arbitration and away from mediation; and
- a lack of transparency or certainty in interpretations of applicable laws and regulations (including, for example, contract interpretation) in new markets that we may enter.

Macro developments giving rise to emerging risks, including climate change and changes in a range of business and social dynamics as a result of technological change (particularly risks relating to cybersecurity, where accumulation risk is yet to be fully understood, but also risks relating to wearable health devices and autonomous cars), can also be expected to have an impact on claims and coverage. The effects of these and other, unforeseen, emerging claim and coverage issues are extremely hard to predict, but could increase in either or both number and magnitude, and therefore could harm our business and have a material adverse effect on our financial condition and results of operations.

Cyclicality of the reinsurance industry has caused, and can be expected to continue to cause, fluctuations in our results.

The supply of reinsurance is related to prevailing prices, the level of insured losses and the level of industry surplus, which may fluctuate in response to changes in premium rates and rates of return on investments being earned in the reinsurance industry. As a result, the reinsurance business has historically been cyclical, particularly the property and casualty market, which is characterized by periods of intense competition on price and policy terms due to excessive underwriting capacity as well as periods when shortages of capacity permit favorable premium rates and policy terms and conditions. Typically, no two cycles are the same.

We have in the past experienced, and expect to continue to experience, the effects of this cyclicality, including changes in premium rates as well as in terms and conditions. Moreover, the two principal segments of our business – Life & Health Reinsurance and Property & Casualty Reinsurance – in effect operate in their own cycles. The property and casualty reinsurance markets across most markets and most lines of business, for example, have in recent years been viewed as being in a "soft" cycle, with pricing during renewal seasons in recent years experiencing pressure due to benign claims developments and particularly due to the excess capital available in the market (in large part due to considerable influx of alternative capacity). While the magnitude of large natural catastrophe events and estimated losses in the second half of 2017 as well as in the second half of 2018, together with retrenchment by certain alternative capacity providers and increased demand, pushed improved market pricing in loss-affected segments in property and casualty reinsurance, the scope and magnitude of pricing improvements in renewals to date have been modest relative to pricing improvements that followed from significant losses in prior years. Life and health reinsurance remains under pressure from lower cession rates and the effects of low interest rates, particularly in mature markets. The effects of this cyclicality can also be exacerbated by changes in business mix within the two segments, as well as the cyclicality of business lines within the two segments.

Historically, operating results of reinsurers have fluctuated significantly because of volatile and sometimes unpredictable developments, many of which are beyond the control of reinsurers. These developments include:

- changes in general economic conditions and the political environment;
- price competition;
- frequency of occurrence and/or severity of catastrophic events;
- financial markets and capital markets volatility;
- changes in underwriting capacity, including from new providers of underwriting capacity (so-called "alternative capital" sources);
- increased funding costs due to market illiquidity; and
- decreased demand for reinsurance products and services (including as a result of greater ceding company retention levels, typically reflecting stronger balance sheets or as a result of an economic downturn).

The cyclical nature of the reinsurance industry could have a material adverse effect on our financial condition, results of operations, business and prospects. It could also cause fluctuations in our reported results compared to prior periods. These fluctuations could exacerbate, or offset, other variations in our results, including, for example, gains or losses related to the ways in which we structure certain of our reinsurance transactions. The adverse impact of changes attributed to the cycle on our underwriting results may be exacerbated by the pressure on asset management results in a low interest rate environment.

We are impacted by changes in the insurance industry that affect ceding companies, which could have a material adverse effect on our business and results.

Some of our ceding company clients have greater market capitalizations than we and our reinsurance industry peers do. Among other effects of changes affecting the primary market, ceding companies are retaining an increasing portion of their business, relying less on reinsurance to mitigate their risk exposure and rationalizing reinsurance procurement policies (particularly for recurring (flow) business obtained in the open market) through central purchasing platforms. Excess capital available to ceding companies (supported in part by beneficial changes in regulation), combined with excess supply of reinsurance and competition within the reinsurance sector, limits our ability to increase premium rates and may also lead to reduced premium rates.

Further, insurance industry participants have been consolidating, and may continue to consolidate, through acquisitions. These consolidated entities may use their enhanced market position and broader capital base to negotiate price reductions for our products, and reduce their use of reinsurance, and as such, we may experience price declines and possibly write less business, with a corresponding reduction in premiums, unless we are able to broaden and diversify our access to clients and risk pools. Moreover, consolidation in the industry may limit opportunities available to us to grow through acquisitions. An additional structural challenge is the evolution of risks due to technological change, including, for example, the potential impact of autonomous vehicles on motor insurance (and therefore reinsurance) and the potential impact generally of cyber risks in a more internet-connected world, including, for example, the potential risks associated with the proliferation of cloud-based technology. An inability to access risks that are being retained, or otherwise to offset declines in the propensity of ceding companies to seek reinsurance could have a material adverse effect on our financial condition, results of operations, business and prospects.

Competitive conditions could impact our results.

Competition in the types of reinsurance we provide is based on many factors, including the overall financial strength of the reinsurer, expertise, local presence, reputation, experience and qualifications of employees, client relationships, geographic scope of business, products and services offered, premiums charged, contract terms and conditions and speed of claims payment.

We compete worldwide for reinsurance business, particularly in the United States, the United Kingdom and Australia, with numerous reinsurance companies, some of which also have substantial financial resources and are highly rated. We continue to focus on sustainable growth opportunities in high growth markets, while maintaining disciplined underwriting. Opportunities in high growth markets have led to increased competitive pressures in such markets from international players, and we also compete with state-owned reinsurers in three of these markets, Brazil, India and China. We also face competition in our efforts to offer risk transfer products to the capital markets, as other market participants develop and offer insurance-linked securities ("**ILS**") and derivatives and other non-traditional risk transfer mechanisms and vehicles. The increasing role of brokers, particularly in the property and casualty sector, can also lead to increased competition. We are also subject to risks of reduced demand for reinsurance to the extent ceding companies increase their retention levels.

We also face competition in the reinsurance industry from so-called "alternative capital," such as the investment of significant capital from pension funds, mutual funds, hedge funds, sovereign wealth funds and other sources of capital into natural catastrophe insurance/reinsurance platforms. While a significant amount of alternative capital was absorbed by the natural catastrophe losses in 2017 and 2018, especially collateralized capacity in the retrocession market, alternative capital to cover natural catastrophe risks continues to grow, driven in part by low returns in fixed income markets and the benefits to providers of capital of diversification given the lack of correlation between insurance risks and traditional capital markets instruments. The amount of alternative capital, estimated at $90-$100 billion at the end of 2018, has more than quadrupled since 2010, and is currently supporting an estimated annual premium volume of around $5 billion. In contrast, global capital for the traditional reinsurance segment, which provides cover for all types of life and non-life insurance risks, was around $340 billion, based on an annual premium volume of $270 billion. We view alternative capital as an established feature of the market. Reinsurance prices in respect of U.S. natural catastrophe business continue to be under pressure, in part, as a result of significant inflows of alternative capital driving catastrophe bond and ILS issuances.

The nature of the competition we face may be affected by disruption and deterioration in global financial markets and economic downturns, as well as by governmental responses thereto. Government intervention might result in capital or other support for our competitors. Furthermore, competition in the reinsurance industry may be indirectly impacted by regulatory capital requirements in Europe as primary insurance companies look for ways to relieve their capital requirements, for example with structured reinsurance.

We seek to compete on the basis of our capital strength, our expertise and our brand, and seek equally to position ourselves as an efficient allocator of capital as well as a "knowledge company" offering tailored solutions to, as well as a long track record of partnership with, our clients, the importance of which we believe is heightened in a soft cycle. Our success in this respect depends in part on our ability to capitalize on value-added services as a differentiator and derive a return on the services we provide, which we may be unable to do.

The occurrence of future risks that our risk management procedures fail to identify or anticipate could have a material adverse effect on us.

We continually review our risk management policies and procedures, and will continue to do so in the future. However, our risk management procedures cannot anticipate every economic and financial outcome or the specifics and timing of the realization of each risk. Many of our methods of managing risk and exposures are based upon observed historical market behavior and statistics-based historical models. As a result, these methods may fail to predict future exposures, which could be significantly greater than historical measures indicate. Other risk management methods depend on the evaluation of information regarding markets, clients, catastrophe occurrence, or other data that are publicly available or otherwise accessible to us. This information may not always be accurate, complete, up-to-date or properly evaluated. Our risk management methods reflect certain assumptions about the degrees of correlation or lack thereof among prices of various asset classes or other market indicators. In times of market turmoil or other unforeseen circumstances, previously uncorrelated indicators may become correlated, or previously correlated indicators may move in different directions. These types of market movements may limit the effectiveness of our risk management policies and procedures.

If we are, or are perceived to be, unable to develop, implement, monitor and when necessary pre-emptively upgrade our risk management policies and procedures to address current or evolving risks, we could, among other things, suffer reputational harm and experience an adverse impact on our ratings (to the extent that any future unexpected loss does not fit within our stated tolerance for risk or is not considered by the rating agencies to be manageable compared to our underlying capital position). Risks that we fail (or are perceived to have been unable) to anticipate, and/or adequately manage, could result in material unanticipated losses and have a material adverse effect on our financial condition, results of operations and prospects.

We depend, in part, on the policies, procedures and expertise of ceding companies; these companies may fail to accurately assess the risks they underwrite, which may lead us to assess inaccurately the risks we assume, or may not take measures to mitigate claims, which may result in higher losses for us.

The success of our underwriting efforts depends, in part, on the policies, procedures and expertise of the ceding companies making the original underwriting decisions. We may not have adequate visibility as to the assumptions, modeling and other techniques that ceding companies use and such assumptions, modeling and other techniques may not prove beneficial to us. In new markets that we may enter, for example, we may be relying on local ceding companies' data, understanding and assessment of concentration risks and the impact of contingent business interruptions. Ultimately, we depend on both the quality of the data we receive from ceding companies and the speed with which we receive them, and the data we receive may not be as current or comprehensive as we would like.

If ceding companies fail to accurately assess the risks they underwrite, or fail to provide us with timely and appropriate data, we may inaccurately assess the risks we reinsure and the premiums that are ceded to us may not adequately compensate us for the risks we assume. In addition, our reliance on underwriting decisions of ceding companies creates greater uncertainty with respect to the adequacy of our reserves. Our exposure to claims could be exacerbated by failure of ceding companies to take measures in respect of their underlying policies to mitigate their direct exposure. As a result of any of the foregoing, our financial condition or results of operations could be materially and adversely affected.

Incorrect pricing assumptions and other underwriting decisions can impact our underwriting results.

Underwriting is a matter of judgment, involving important assumptions about matters that are inherently unpredictable and beyond our control and for which historical experience and statistical analysis may not provide sufficient guidance. We make assumptions about mortality, morbidity, persistency, expenses, interest rates, inflation, financial market volatility, tax liability, business mix, frequency and severity of claims, correlation of risks, contingent liabilities, investment performance, and other factors. In areas involving emerging risk/coverage issues, we need to factor in the potential impact of a range of developments such as climate change, health coverage (which has a variety of dimensions including technological advances and societal concerns) and technological developments (such as cyber risks (which are difficult to price because of the challenge in assessing the causes and consequences of cyberattacks, particularly large-scale attacks, and in assessing the accumulation risk due to the inter-connectedness of exposures) and the impact of autonomous cars) that have the potential to profoundly change the way in which we develop pricing assumptions and underwrite risks. Our ability to underwrite certain risks (such as cyber risks) accurately, significantly depends on our ability to capture and analyze necessary data and, in certain cases, relies on cooperation between companies,

insurers and governments to share information. If we fail to accurately assess the risks we underwrite, we may inaccurately assess the risks we reinsure and the premiums that we receive may not adequately compensate us. We are increasing our focus on large and tailored transactions through our Transactions business, and in doing so, in light of the greater complexity of risks assumed, the consequences of incorrect assumptions could be magnified.

We have both short-tail and long-tail exposures and, in the case of long-tail covers, claims can be presented many years after the cover initially was provided and adverse development can be experienced for significant periods of time. In the case of long-tail covers, claims can be presented many years after the cover initially was provided and adverse development can be experienced for significant periods of time. For example, our results continue to be adversely affected by the negative performance of U.S. post-level term ("**PLT**") business, written on a co-insurance basis in the Americas prior to 2004, due to higher-than-expected lapses and mortality, which causes negative reserves to be released. While we took measures to address the adverse development of the PLT business, we may continue to be subject to quarter-to-quarter volatility due to lapse, mortality and seasonality of policy issue dates, and could in the future be subject to adverse development in other lines as well.

Operations in high growth markets expose us to a greater variety and extent of risks relative to developed markets.

High growth markets are subject to a greater variety and extent of risks than more developed markets. While we seek to sustainably grow our footprint in high growth markets because that is where we perceive there to be the greatest potential for future growth for Property & Casualty and Life & Health Reinsurance business, the political, economic and market conditions in many of these markets present risks that could make it more difficult to operate our business in those regions successfully. Some of these risks include:

- political instability;
- economic instability, including currency fluctuations, currency devaluations, capital and currency exchange controls, high rates of inflation and low or negative growth rates;
- corruption, including bribery of public officials;
- loss due to civil strife, acts of war or terrorism and insurrection;
- uncertainty as to legal and regulatory positions;
- deviations in accepted market practice from published legal and regulatory standards;
- lack of well-developed legal systems for purposes of enforcing our contractual rights;
- logistical and communications challenges;
- potentially adverse changes in, or uncertainty surrounding, laws and regulatory practices, including legal structures, tax laws and capital requirements;
- expropriation or nationalization;
- difficulties in staffing and managing operations and ensuring the safety of our employees;
- restrictions on the right to convert or repatriate currency assets; and
- greater risk of uncollectible accounts and longer collection cycles.

Many high growth markets are in various stages of developing institutions and political, legal and regulatory systems that are characteristic of democracies. However, institutions in these markets may not yet be as firmly established as they are in democracies in the developed world. Many of these countries and regions are also in the process of transitioning to a market economy and, as a result, are experiencing changes in their economies and their government policies that can affect our investments in these countries and regions. Moreover, the procedural safeguards of the legal and regulatory regimes in these countries and regions are still being developed and, therefore, existing laws and regulations may offer inadequate safeguards and may be applied inconsistently. In some circumstances, it may not be possible to obtain the legal remedies provided under those laws and regulations in a timely manner. As the political, economic and legal environments remain subject to continuous development, investors in these countries and regions face uncertainty as to the security of their investments. Any unexpected changes in the political or economic conditions in these or neighboring countries

or others in the region may have a material adverse effect on our operations in these countries, which may in turn have a material adverse effect on our business, results of operations, cash flows and financial condition.

A failure in our operational systems or infrastructure, or those of third parties, could disrupt our business or cause losses.

Our business is dependent on our ability to process and monitor multiple client relationships, agreements and transactions, many of which are highly complex and extend across numerous and diverse markets in many currencies. Our arrangements with our clients typically will be tailored to client-specific requirements and preferences, as well as legal and regulatory standards. As our client base and our geographical reach is global and ever expanding, developing and maintaining our operational systems and infrastructure is an ongoing challenge. Our financial, accounting, data processing or other operating systems and facilities may fail to operate properly or become disabled as a result of factors that are wholly or partially beyond our control, such as increased transaction volume, adversely affecting our ability to process transactions or provide services. In addition, failure of our systems may adversely impact our ability to determine effectively our pricing, underwriting liabilities, the required levels of reserves and the acceptable level of risk exposure in respect of these transactions or services. We update our systems and infrastructure to support our operations and growth and to respond to changes in regulations and markets. This updating can create risks associated with implementing new systems and integrating them with existing ones. Any failure, termination or constraint in respect of our systems could adversely affect our ability to effect transactions, service our clients, manage our exposure to risk or expand our business or result in financial loss or liability to our clients, impairment of our liquidity, disruption of our business, regulatory intervention or reputational damage.

Despite the resiliency plans and facilities we have in place, our ability to conduct business may be adversely impacted by a disruption in the infrastructure that supports our business and the communities in which we are located. This may include a disruption involving electrical, communications, internet, transportation or other infrastructure and/or services used by us or third parties with which we conduct business. Notwithstanding our efforts to maintain business continuity, depending on the intensity and longevity of the event, a disruption impacting any of our offices could negatively impact our business. If a disruption occurs in one location and our employees in that location are unable to occupy our offices or communicate with or travel to other locations, our ability to service and interact with our clients may suffer, and we may not be able to successfully implement contingency plans that depend on communication or travel.

We have outsourced significant components of our asset management functions to a variety of asset managers and are dependent on their systems and controls in respect of the portfolios they manage for us. We also face the risk that any of the financial market platforms, clearing agents, securities exchanges, clearing houses or other financial intermediaries we use to facilitate our securities transactions could experience operational failures or cease to operate. Failures or other adverse developments by any of the foregoing third parties could have an adverse effect on us pending replacement.

Cyber-attacks directed at our computer systems, networks or data could disrupt our business, result in the disclosure of confidential information, damage our reputation and cause losses.

Our operations rely on the secure processing, storage and transmission of confidential and other information in our computer systems and networks. Although we take protective measures and endeavor to modify them as circumstances warrant, our computer systems, our data stored on third-party servers or applications by means of "cloud computing," our software and our networks may be vulnerable to unauthorized access (from within our organization or by third parties), computer viruses or other malicious code and other cyber threats that could have a security impact. Cyber-attacks, in particular, have become far more prevalent in the past few years, leading potentially to the theft or manipulation of confidential, personal or proprietary information or loss of access to, or destruction of, data on our systems. The occurrence of one or more of such events in respect of our systems, our data (wherever stored), our software or our networks could jeopardize our or our clients' confidential and other information stored in, or processed or transmitted through, our computer systems and networks or third-party platforms, or otherwise cause interruptions or malfunctions in our, our clients' or third parties' operations, which could result in significant losses or reputational harm, third party liability, business interruption, reputational harm and sometimes physical damage.

We may be required to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities or other exposures, and we may be subject to litigation and financial losses that are either not insured against or not fully covered through any insurance maintained by us.

Regulators are increasingly focused on promoting the protection of customer/client information and the integrity of information technology systems of regulated firms, examples of which are the New York Department of Financial Services ("**DFS**") Cybersecurity Requirements for Financial Services Companies ("**DFS Cyber Regulation**") and the EU General Data Protection Regulation (Regulation (EU) 2016/679) (the "**EU GDPR**"), as well as proposed guidelines issued by the Hong Kong Insurance Authority and efforts of the National Association of Insurance Commissioners ("**NAIC**"), which has developed a model cybersecurity law that individual state legislatures could ultimately choose to adopt (as was the case in South Carolina). While the model law itself is not binding, it is expected that most U.S. state legislatures will adopt most, if not all, of its language when drafting laws covering re/insurers' data security, investigation, and notification requirements. These initiatives increase the risk of potential liability and could lead to more conservative approaches to the sharing of data, which in turn could impact assessments of risks. Increased regulatory activity may also include greater scrutiny of personal data processing within the reinsurance sector, which may give rise to regulatory intervention and reputational harm. Failure to comply with applicable regulations would expose us to significant regulatory fines (for example, the maximum fine for non-compliance with certain EU GDPR requirements would be up to €20 million or 4% of our global turnover (whichever is greater)).

We also routinely transmit and receive personal, confidential or proprietary information by email and other electronic means. We have discussed and worked with clients, vendors, service providers, counterparties and other third parties to develop secure transmission capabilities, but we do not have, and may be unable to put in place, secure capabilities with all of our clients, vendors, service providers, counterparties and other third parties and we may be unable to ensure that these third parties have appropriate controls in place to protect the confidentiality of the information. An interception, misuse or mishandling of personal, confidential or proprietary information sent to or received from a client, vendor, service provider, counterparty or other third party could result in legal liability, regulatory action and/or reputational harm.

Failure to maintain the value of the "Swiss Re" brand could harm our global competitive advantage, results of operations and strategy.

Our ability to continue to leverage the "Swiss Re" brand and our global footprint, and thus maintain one of our (and our affiliates') key competitive advantages, depends on the continued strength and recognition of the "Swiss Re" brand as competition intensifies. The "Swiss Re" brand could be harmed if its public image or reputation were to be tarnished by negative publicity, whether or not true, about Swiss Re or the financial services industry in general, or by a negative perception of Swiss Re's short-term or long-term financial prospects. Maintaining, promoting and positioning the "Swiss Re" brand will depend largely on our ability to provide consistent, high-quality products and services to Swiss Re clients around the world. Failure to maintain the "Swiss Re" brand could adversely affect our competitive advantage, results of operations and strategy.

We may not achieve our strategic growth plans.

We will seek opportunities to expand in select areas – by line of business, products and geographic focus. We will also seek opportunities to capitalize on our market position and experience in structuring risk transfer solutions by writing longevity risk covers. Finally, we aim to further develop Swiss Re as a leading reinsurance player in the markets where premium growth over the next 10 years is expected to far outpace growth in the developed economies. We are particularly focused on sustainable growth in high growth markets, many of which we believe are currently underserved by reinsurance solutions, while maintaining disciplined underwriting.

More generally, we continue to focus and invest strategically in technological innovation across our business, especially in the field of digital analytics (including partnerships with digital leaders), smart analytics and cognitive computing, to enhance our value proposition and support growth. This includes modernizing and integrating our information technology architecture as well as pursuing innovative initiatives. Investment in technological innovation can be costly and we may not realize the expected benefits or create sufficient value from such investments as planned and on a timely basis, including as a result of factors beyond our control; for example, blockchain technology can only reach its full potential for stakeholders if a sufficient number of participants (with adequate capital strength) choose to implement it in a consistent and compatible way.

We may be unable to achieve our goals for growth as planned and on a timely basis, and we may be unable to recoup expenditures to the extent we are unable to achieve our goals. Depending on the particular opportunity, failure to achieve our strategic goals could have an adverse impact on our competitive position and on our results. In the short-term, pursuit of growth initiatives is likely to have an impact on costs.

We may have difficulty in executing acquisitions, which could adversely impact the implementation of our growth strategies.

The Swiss Re Group has in the past, and may in the future, engage in discussions with third parties regarding possible acquisitions (as acquisitions represent an option for the Swiss Re Group, from a capital management perspective, to deploy capital), which discussions may or may not result in acquisition transactions and, to the extent they do, could involve operations that would be integrated as part of the Guarantor Group.

Acquisitions present a range of uncertainties and risks. Consolidation in the industry may limit available opportunities for acquisitions. We may also be restricted by applicable antitrust laws, foreign investment laws or other laws and regulations from pursuing acquisitions, in which case we may bear substantial out-of-pocket expenses associated with one or more acquisitions that we are precluded from pursuing. Acquisitions can require substantial lead-times to complete (particularly in new markets), and market dynamics may shift in the interim period prior to completion. Moreover, challenges presented in identifying or acquiring particular acquisition targets may cause us, after expending significant time, management resources and financial resources, to shift our approach and establish a greenfield operation instead or to postpone entry into a market until acquisition terms become more attractive for us.

While we may seek to acquire a full ownership stake in our acquisition targets, our ability to acquire full ownership stakes may be restricted by several factors, on a market-by-market basis. For example, foreign investment laws in certain countries can prevent the acquisition of full ownership stakes. These limitations may result in us entering into joint ventures, business alliances or collaboration agreements, which could involve the same or similar risks and uncertainties as are involved in acquisitions, or could involve greater risks and uncertainties. Joint ventures generally involve a lesser degree of control over business operations (compared to acquisitions), and may in the future present greater financial, legal, operational and/or compliance risks. We may also have difficulty enforcing provisions of joint venture agreements in local courts.

We view high growth markets as offering us significant growth and market-shaping potential, and we expect to seek access to a variety of such markets through acquisitions and partnerships. The pursuit of these initiatives can be affected by regulatory constraints, foreign ownership restrictions in local investment laws, availability of suitable targets and uncertain business cases in ways that pose greater risk than initiatives that target established markets. In addition, acquisitions in high growth markets may pose particular risks related to integration across different corporate cultures, systems, languages, regulatory requirements and market practice, and may require greater investment to build up local market expertise and experience. More broadly, acquisitions in markets in which we have limited or no prior experience may pose a greater risk. For further information on risks related to high growth markets, see "–Operations in high growth markets expose us to a greater variety and extent of risks relative to developed markets."

We may have difficulty integrating completed acquisitions or may face other risks as a result of acquiring new operations.

Completed acquisitions present a range of operational and structural risks. Significant declines in asset valuations or cash flows may cause us not to realize expected benefits from the transactions, which may affect our results, including adversely impacting the carrying value of the acquisition premium or goodwill. Unless we use our shares as consideration for an acquisition, funding acquisitions can adversely impact our financial flexibility, as such funding requires use of cash on hand, borrowing under credit facilities and/or raising funds (including to augment our capital base) in the capital markets or on a negotiated basis. Acquisitions can adversely impact our levels of surplus capital, our solvency ratios and our credit profile, and the impact of an acquisition on our financial condition and results of operations could be exacerbated if the acquired operations do not generate the results we expect or when we expect them following integration.

Each target operation, regardless of size, needs to be integrated from a range of perspectives, including financial reporting and audit processes, information technology systems, general operations, human resources, compliance philosophy and monitoring, underwriting strategy and terms, among others, and these changes may be significant relative to the target's historical operations and infrastructure. In addition, in certain cases, there may be contractual limitations placed on the full integration of the acquired entity's operations, which can present additional operational risks. In general, difficulties in integrating acquired operations could have an adverse effect on us for an undetermined period after consummation of an acquisition. In particular, acquisitions may result in business disruptions that cause us to lose customers or cause customers to move their business to competing institutions. It is possible that the integration process related to acquisitions could result

in the disruption of our ongoing business or inconsistencies in standards, controls, procedures and policies that could adversely affect our ability to maintain relationships with clients and other counterparties, and which could adversely impact approvals of subsequent acquisitions. In addition, regulators can be expected to focus on the integration process related to acquisitions, which could have regulatory consequences. The strain on group-wide infrastructure, internal control systems and other resources (including management resources and processes), as well as the loss of key employees, in connection with an acquisition, could adversely affect our ability to successfully conduct our business. If we are unable to integrate acquired operations within a reasonable time and within our anticipated cost parameters, we may incur higher-than-expected costs and we may be unable to realize the potential and anticipated financial results of the acquisition, including expected cost and revenue synergies, operational efficiencies and other benefits.

Additionally, when deciding to complete an acquisition, we make certain business assumptions and determinations based on our investigation of the business to be acquired, as well as other information then available (including, without independent verification). However, these assumptions and determinations involve risks and uncertainties that may reveal them to be incorrect. As a result, we may not realize the full benefits that we expect from an acquisition. We may also assume unknown or undisclosed business, operational, tax, regulatory and other liabilities, fail to properly assess known contingent liabilities or assume businesses with internal control deficiencies. While we seek to mitigate these risks through, among other things, due diligence processes and indemnification provisions, we cannot be certain that the due diligence process we conduct is adequate (in particular, where we are acquiring a privately held group) or that the indemnification provisions and other risk mitigation measures we put in place will be sufficient. Further, acquisitions also expose us to the risk of ongoing compliance issues until such time as we can fully integrate acquired operations into our compliance and control frameworks. Any unknown or undisclosed liabilities that we assume, or any additional information about the acquired operations that adversely affects us (such as unknown or contingent liabilities and issues relating to compliance with applicable laws), could substantially increase our costs and have a material adverse effect on our business, financial condition and results of operations.

Risks Related to the Market and other Systemic Events

Our business, financial condition and results of operations could be adversely impacted by deterioration in global financial markets and economic conditions or the occurrence of other significant developments that affect the financial markets.

Our operations as well as our investment returns are subject to market volatility and macro-economic factors, which are outside of our control and are often inter-related. These, in turn, could be influenced, for example, by the planned withdrawal of the United Kingdom from the European Union and significant uncertainty regarding the basis of that withdrawal and the future relationship between the United Kingdom and the European Union; the possible emergence of trade barriers and other protectionist policies across a range of economies, including sustained trade war between the United States and China; geopolitical tensions more broadly; a prolonged slowdown in one or more of the principal global economies, particularly in China, and possible recession; continued challenges faced by the Eurozone; the tightening of monetary policy; sustained challenges to multilateral institutions and frameworks; the domestic political situation in the United States, various member states of the European Union and potentially other countries; and heightened scrutiny of technology companies. Any of the foregoing could have a negative impact on financial markets and economic conditions, which in turn could limit our ability to access the capital markets and bank funding markets, could adversely affect the ability of counterparties to meet their obligations to us and could adversely affect the confidence of the ultimate buyers of reinsurance. Any of the foregoing factors, and related developments and trends, could also have an adverse effect on our investment results, which in the current low interest rate environment and soft insurance cycle (which began to harden in 2018 and again in 2019, but not to expectation) could have a material adverse effect on our overall results, make it difficult to determine the value of certain assets in our portfolio, make it more difficult to acquire suitable investments to meet our risk and return criteria and otherwise have a material adverse effect on our business and operations.

We are exposed to significant financial and capital markets risks, including changes in interest rates, credit spreads, equity prices and foreign exchange rates, which may adversely impact our financial condition, results of operations, liquidity and capital position.

As a global reinsurance company, our business is materially affected by conditions in the financial markets and economic conditions, particularly in Europe and the United States and, increasingly, in high growth markets as we enhance our presence in such markets.

Our market risks primarily consist of risks related to interest rates, credit spreads, equity prices and foreign exchange rates. These risks can have a significant effect on our investment returns and the market value of our investment portfolio, which in turn affects both our financial condition and results of operations. Investment income is an important part of our overall profitability, particularly during periods when underwriting results are under pressure and, in addition to premiums from our operations, represents a principal source of income. Fluctuations in the fixed income or equity markets have had, and could continue to have, an adverse effect on us. Our investment returns are also susceptible to changes in general economic conditions, including changes that impact the general creditworthiness of the issuers of debt securities held in our portfolio or the value of equity securities held in our portfolio, and to changes that impact the value of structured products. Market volatility, particularly from credit spread widening, may heighten concerns over potential defaults by issuers of debt securities held in our portfolio.

Interest rates. Our exposure to interest rate risk is primarily related to the market price and cash flow variability associated with changes in interest rates. Fluctuations in interest rates may affect our future returns on fixed income investments, as well as the market values of, and corresponding levels of capital gains or losses on, the fixed income securities in our investment portfolio, which ultimately impacts the level of our excess capital on an SST basis. While interest rates have continued to gradually increase in the United States and have recently increased in the United Kingdom, they remain relatively low, which generally depresses our key performance metrics, such as our return on investments and return on equity, due to lower reinvestment yields. Interest rates are subject to factors beyond our control, such as governmental monetary and fiscal policies, and global economic conditions. Generally, an increase in interest rates would increase the net unrealized loss position of our fixed income portfolio, offset by the ability to earn higher rates of return on new funds invested. Conversely, a decline in interest rates would decrease the net unrealized loss position, offset by lower rates of return on new funds invested. From an accounting perspective, a sharp increase in interest rates would lead to a decrease in our shareholder's equity, through the increase in unrealized losses in fixed income securities, which is not offset by changes in our liabilities under U.S. GAAP.

In an environment of low interest rates, we are likely to be subject to the significant potential effects of rising rates. Moreover, the long time horizon for future liabilities in our Life & Health Reinsurance business means that changes in interest rates also have a direct economic impact on the value of our best estimate of future cash flows from such business.

In general, low interest rates continue to pose significant challenges to the reinsurance industry, with earnings capacity under stress unless lower investment returns can be offset by lower combined ratios, which in the current soft market cycle is a challenge. Credit rating buffers are also adversely impacted by low interest rates. Economic weakness, fiscal tightening and monetary policies in response to moderate growth and low inflation are keeping government yields low, which impacts investment yields and affects the profitability of life savings products with interest rate guarantees. Interest rate movements have affected, and may in the future affect, dividends received from our subsidiaries, due to the corresponding impact on regulatory capital requirements in respect of reserves. While the trend of declining investment yields has bottomed, we do not currently foresee a substantial increase in long-term interest rates.

In addition, the ongoing uncertainty with respect to interest rate calculations as of 2021 due to the phasing out of the London Interbank Offered Rate ("**LIBOR**"), as well as uncertainty about the future of the Euro Interbank Offered Rate ("**EURIBOR**") and other benchmarks, could have an adverse effect on our interest rate sensitive liabilities. See also "Risks Relating to the Notes and the Subordinated Guarantee - Uncertainty about the future of EURIBOR and discontinuation of the Screen Page 1-year Mid-Swap Rate could adversely affect the Notes."

Credit spreads and related indicators. Our exposure to credit spreads primarily relates to market price and cash flow variability associated with changes in credit spreads. Widening of credit spreads or other events that adversely affect the issuers or guarantors of fixed income securities we hold could cause the value of our fixed income portfolio and our net income to decline (as a result of an increase in the net unrealized loss position of our investment portfolio, and/or other-than-temporary impairments) and the default rate of the fixed income securities in our investment portfolio to increase. A ratings downgrade affecting issuers or guarantors of particular securities, or similar trends that could worsen the credit quality of issuers, could also have a similar effect. In addition, losses may also occur due to the volatility in credit spreads. Volatility to developments such as the uncertainties around the withdrawal of the United Kingdom from the European Union can also be expected to have an adverse impact on credit spreads, particularly on sterling-denominated instruments.

Equity prices. We are exposed to changes in the level and volatility of equity prices, as well as the value of securities or instruments that derive their value from a particular equity security, a basket of equity securities or a stock index. We are also subject to equity price risk to the extent that the values of life-related benefits under certain products and life contracts, most notably VA contracts, are tied to financial market values, including equity prices. To the extent market values fall, the financial exposure on guarantees related to these contracts would increase to the extent our exposure is not hedged. While we have an extensive hedging program covering existing VA business, certain risks cannot be hedged, including actuarial risk, basis risk and correlation risk. In addition, we have exposure to alternative investments, such as private equity, real estate and hedge fund investments. Market volatility has impacted both the level of net investment income from these types of investments and our ability to dispose of such investments on favorable terms or at all, and we may continue to experience reduced net investment income due to continued volatility affecting these pools of capital. Moreover, due to the normal delay in the preparation and receipt of financial information from underlying investments, results for later periods of a current year may only be reported to us during a future year. Our reported results were adversely impacted in 2018 due to the US GAAP Accounting Change. See "–Certain changes in accounting or financial reporting standards, or changes in the interpretation of standards, in respect of fair value accounting or impairments, could have a material effect on our reported financial results."

Foreign exchange rates. Our exposure to foreign exchange risk arises from changes in spot prices, forward prices and volatilities of currency rates. The U.S. dollar is our reporting currency. Therefore, our financial condition, results of operations and cash flow have been and will continue to be affected by fluctuations in the values of other currencies (in which we transact business or in which our assets or liabilities are denominated) against the U.S. dollar, which could be material. Foreign exchange rates continue to be volatile.

If significant, market volatility, changes in interest rates, changes in credit spreads and defaults, a lack of pricing transparency, reduced market liquidity, declines in equity prices, and foreign currency movements, alone or in combination, could have a material adverse effect on our financial condition, results of operations, cash flows and solvency ratios, through realized losses, impairments or changes in unrealized positions, and may affect levels of regulatory capital required to be held by us. Volatility in the capital markets also impacts costs of hedging, and lower asset values reduce shareholder's equity.

Our efforts to manage asset risk in our investment portfolio may not be fully successful and may nonetheless expose us to the risk of mismatch between our assets and our liabilities.

We are focused on ALM for our investment portfolio, but pursuing even this strategy has its risks, including a possible mismatch between investments and liability benchmarks. In addition, although we seek to price our new business consistent with investment returns tied to our liability benchmark, our existing business, particularly the more long-tailed Life & Health Reinsurance business, tended to be priced using historical parameters. As interest rates have in recent years been, and continue to remain, at historically low levels, we may be unable to successfully match, or come close to, historical parameters going forward. Further, unanticipated changes in the correlation between the various factors that we use to manage our investment portfolio may impact its performance. We also seek to manage the risks inherent in our investment portfolio by repositioning our portfolio from time to time, as needed, and to reduce risk and fluctuations through the use of hedges and other risk management tools.

Our ability to manage exposures may be limited by adverse changes in the liquidity of a security or the related hedge instrument and in the correlation of price movements between the two. Sudden declines and volatility make it more difficult to hedge, or to sell or value, assets. The inability to effectively hedge or sell assets reduces our ability to limit losses in such positions. In addition, in the case of private equity investments, hedge fund investments and other securities that are not freely tradable or lack an established and liquid trading market, it may not be possible, or economical, to hedge position risk. We may be unable to reduce our exposure to sudden and adverse price movements will be successful, and failure to do so could have a material adverse effect on our financial condition, results of operations and liquidity. Moreover, we may be successful in establishing hedges, but the hedges may be ineffective or may greatly reduce our ability to profit from increases in the values of the underlying securities. In addition, our approach to ALM and the related level of de-risking may be more cautious than the approach pursued by other market participants, and while our approach may be more beneficial while markets remain volatile, were markets to stabilize, other market participants may benefit more than us.

Liquidity Risks

We could be subject to unexpected needs for liquidity, which need could be exacerbated by factors beyond our control, and may limit our ability to engage in desired activities.

Our business requires, and our clients expect, that we have sufficient capital and liquidity to meet our reinsurance obligations, and that this would continue to be the case following the occurrence of any foreseeable event or series of events, including extreme catastrophes, that would trigger our reinsurance coverage obligations. Failure to do so could have an adverse effect on our liquidity position, our ability to meet our regulatory requirements and ultimately our ability to conduct our business.

Our uses of funds include, among other things, our obligations arising in our business (including claims and other payments as well as insurance provision repayments due to portfolio transfers, securitizations and commutations), which may include large and unpredictable claims (including catastrophe claims), funding of capital requirements and operating costs, payment of principal and interest on outstanding indebtedness, and funding of acquisitions. We also have potential collateral requirements in connection with a number of our reinsurance arrangements. Certain of our debt underlying structured transactions may be due on demand, and payment undertaking agreements may be accelerated on ratings downgrades or unwinds of the related structured transaction.

Market conditions could also subject us to unexpected needs for liquidity. For example, we may need liquidity to cover potential recapture of reinsurance agreements, early calls of debt or debt-like arrangements or collateral calls under derivative contracts and other contractual arrangements as a result of a deterioration in our financial strength due to market conditions or the perception by counterparties that we may be subject to such deterioration. Similarly, contingent collateral requirements could be tied to ratings or our ability to meet certain regulatory capital tests. Obligations under derivative instruments to maintain high quality collateral could trigger funding requirements were the collateral we maintain to be downgraded or otherwise impaired as a result of market conditions. Market conditions could also trigger changes in collateral requirements under securities lending arrangements. Any of the foregoing could have a material adverse effect on our financial condition and results of operations. In addition, our ability to take advantage of new business opportunities could be adversely impacted by our inability to access sufficient liquidity, which in turn could adversely affect our ability to achieve our growth targets.

Unexpected liquidity needs could require us to increase levels of indebtedness or to liquidate investments or other assets. Should we require liquidity at a time when access to bank funding and the capital markets is limited, we may be unable to secure new sources of funding. Our ability to meet liquidity needs through asset sales may be constrained by market conditions and the related stress on valuations. Our ability to meet liquidity needs through the incurrence of debt may be limited by constraints on the general availability of credit in the case of bank funding, and adverse market conditions, in the case of capital markets debt. Failure to meet covenants in lending arrangements could further constrain access to liquidity. Finally, any adverse ratings action against us could trigger a need for further liquidity (for example, by triggering termination provisions or collateral delivery requirements in contracts to which we are a party) at a time when our ability to obtain liquidity from external sources is limited by such ratings action.

The availability and cost of collateral, including letters of credit, could adversely affect our operations and financial condition.

In connection with our reinsurance obligations, we may be, or may become, subject to requirements to post collateral, which amounts could be material and, furthermore, requirements to post collateral could require us to liquidate cash equivalents or other securities to fund collateral requirements. For example, in order to reduce the effects of regulatory reserves and capital that ceding companies are required to maintain in certain jurisdictions, ceding companies retrocede business to affiliated and unaffiliated entities. In connection with such retrocessions, the affiliated or unaffiliated reinsurer must provide collateral. Such collateral may be provided in the form of letters of credit or through the placement of assets in trust. We may be required to provide collateral as part of these types of retrocession arrangements for the benefit of unaffiliated ceding companies or for the benefit of affiliated entities, and a significant part of our reinsurance collateral requirements are currently being met through bank letters of credit obtained through letter of credit facilities. These letters of credit are irrevocable and unconditional, and could be drawn upon by ceding company beneficiaries, triggering a reimbursement obligation on our part to the issuer or issuers of such letters of credit. Calls for collateral could

require us to apply cash or cash equivalents to meet collateral needs, which amounts could be material and could have a material adverse effect on our financial condition.

Our credit facilities place various constraints on us, and our use of credit facilities, particularly letter of credit facilities, subjects us to various risks.

Our letter of credit facilities and revolving credit facilities contain provisions that constrain our ability to undertake various activities or transactions, such as asset sales, incurrence of liens and various types of restructurings, including a change of control of the relevant entity (which would be treated as a prepayment and cancellation event). Any failure to comply with such provisions or the provisions in other credit facilities we might enter into in future could result in a default. A default could lead to acceleration of the underlying obligations, trigger collateralization requirements (in the case of letter of credit facilities supporting reinsurance-related obligations) and/or trigger cross-defaults in other credit facilities or debt instruments. The need to refinance or replace these facilities on less favorable terms could adversely affect our business and our financial condition.

Our future access to funds from bank counterparties and commitments of banks to issue letters of credit could be adversely impacted if one or more bank counterparties were to face liquidity or other credit-related issues. The continued effectiveness of letters of credit could be adversely impacted if the issuing banks were to face resolution. Moreover, failure of a bank to satisfy minimum criteria (such as inclusion on the "NAIC List of Qualified U.S. Financial Institutions (Issuers of Letters of Credit For Use As Collateral in Reinsurance Arrangements)") could require us to find replacement issuers of letters of credit. We might not be able to replace such counterparties on favorable terms on a timely basis or otherwise.

Our failure to maintain our funding arrangements could require us to liquidate investments or curtail business activities, which could have an adverse effect on our financial position. Defaults under letter of credit facilities could trigger collateral requirements and/or require us to find alternative sources of collateral support in order to continue to conduct certain business activities, and could also give rise to events of default under other funding agreements.

We may be unable to access internal sources of liquidity.

We may have adequate capital on a consolidated group basis, but a need for liquidity (cash or liquid assets that can be converted to cash, to meet financial obligations) could arise in a particular legal entity and our ability to access group liquidity for that entity may be limited by constraints on the flow of intra-group funds. For example, our ability to meet liquidity needs may be constrained by regulations, or strategic decisions we may take with respect to our operating model in light of regulatory frameworks, that require our regulated entities to maintain or increase regulatory capital (on a statutory equity basis) (see "–Legal, Tax and Regulatory Risks") or that restrict the flow of intra-group funds or the timing of dividend payments from subsidiaries, or by the fact that certain assets may be encumbered or otherwise non-tradeable. Shifts from multilateral to more national approaches to regulation in key markets in which we operate could exacerbate differences between our economic and statutory balance sheets and place constraints on our subsidiaries' ability to repatriate capital. Moreover, implementation of more protectionist policies in the principal markets in which we operate could prompt more protectionism in financial regulation, which in turn could constrain our ability to repatriate capital to our principal liquidity pools through internal retrocession or otherwise. If Swiss Re is designated as systemically important (see "–Legal, Tax and Regulatory Risks"), applicable regulations could also impact the flow of intra-group funds.

Risks Relating to Downgrades of Credit Ratings

A decline in the financial strength or a downgrade in the credit ratings assigned to us and our business by various rating agencies could have a material adverse impact on us, including on our ability to write new business or borrow money.

Ratings are an important factor in establishing the competitive position of reinsurance companies. Third-party rating agencies assess and rate the financial strength of reinsurers, such as us. These ratings are intended to measure a company's ability to repay its obligations and are based upon criteria established by the rating agencies. Ratings may be solicited or unsolicited.

The rating agencies, with whom we maintain an interactive rating relationship, continuously evaluate us to confirm that we continue to meet the criteria of the rating assigned to us. Our ratings may be revised downward or revoked at the sole discretion of the rating agencies. The financial strength ratings assigned by rating agencies to reinsurance companies are based upon factors relevant to cedents, which include factors not entirely within our control, including factors impacting the financial services and reinsurance industries generally. Financial strength ratings by rating agencies are not ratings of securities or recommendations to buy, hold or sell any security.

SRZ is currently rated "AA-" (stable outlook) by S&P, "Aa3" (stable outlook) by Moody's and "A+" (stable outlook) by A.M. Best. These ratings reflect the current opinions of S&P, Moody's and A.M. Best, respectively. One or more of these ratings could be downgraded or withdrawn in the future. As a result of economic and financial market downturns, and in particular the impact of those conditions on our industry, rating agencies may increase the frequency and scope of ratings reviews, revise their standards or take other actions that may negatively impact our ratings, which we cannot predict. For example, the treatment of hybrid securities is agreed upon with rating agencies on a security-by-security basis, and rating agencies may modify (including retroactively) the treatment they accord such securities.

In addition, changes to the process or methodology of issuing ratings, or the occurrence of events or developments affecting us, could make it more difficult for us to achieve improved ratings, which we would otherwise have expected.

As claims paying and financial strength ratings are a key factor in establishing the competitive position of reinsurers, a decline in ratings of SRZ and/or the ratings of our key rated legal entities could make reinsurance provided by us less attractive to clients relative to reinsurance from our competitors with similar or stronger ratings. A decline in ratings could also cause the loss of clients who are required by either policy or regulation to purchase reinsurance only from reinsurers with certain ratings, or whose confidence in us is otherwise diminished. Furthermore, ratings directly impact the terms, including availability of unsecured financing (potentially impacting both our ability to roll over facilities and obtain new facilities), and declines in our ratings or our subsidiaries' ratings could also obligate us to provide collateral or other guarantees in the course of our business or trigger early termination of funding arrangements. Any rating downgrades could also have a material adverse effect on costs of borrowing and limit access to the capital markets. Finally, the factors that contribute to adverse ratings action, such as the concerns in respect of asset write-downs and capital position, have in the past contributed, and could in the future contribute, to concerns generally about the risks we pose to ceding companies in terms of counterparty risk to them. Any of the foregoing, or a combination of the foregoing, could have a material adverse effect on our business.

Negative ratings action could impact our reinsurance or derivative contracts.

Certain larger reinsurance and derivative contracts may contain terms that would allow the ceding companies or counterparties to cancel the contract if our ratings or those of our subsidiaries are downgraded beyond a certain threshold. Whether a ceding company would exercise this cancellation right would depend, among other factors, on the reason for such downgrade, the extent of the downgrade, the prevailing market conditions and the pricing and availability of replacement reinsurance coverage. Furthermore, any downgrade of our ratings or those of our subsidiaries may dissuade a ceding company from reinsuring with us or our subsidiaries in favor of a competitor that has a higher rating. Therefore, we cannot predict the extent to which any such cancellation right would be exercised, if at all, or what effect any such cancellation would have on our financial condition or future operations. Such effect on our financial condition and results of operations, however, could be material.

Legal, Tax and Regulatory Risks

Regulatory changes could have an adverse impact on aspects of our business model and ultimately on our financial condition and results of operations.

We are subject to applicable regulation in each of the jurisdictions in which we conduct business, including Switzerland, the United States, countries in the European Union, and other jurisdictions.

International. Since the financial crisis, the reinsurance industry has been subject to increased regulatory scrutiny from traditional reinsurance regulators, as well as from international bodies such as the Financial Stability Board ("**FSB**") and others, including central banks, whose historical focus has been in respect of banks and other similar financial institutions. While the stated objective of global regulators has been to achieve a

coordinated and targeted global response, the reinsurance industry, in fact, is facing a potentially more fragmented regulatory landscape. Nonetheless, ongoing regulatory initiatives include, among other things, changes as to which governmental bodies regulate financial institutions, changes in the way financial institutions generally are regulated, enhanced governmental authority to take control over operations of financial institutions, changes in the way financial institutions account for transactions and securities positions, changes in the enforceability of obligations under certain circumstances, changes in disclosure obligations and changes in the way rating agencies rate the creditworthiness or financial strength of financial institutions.

On the international level, certain large insurance companies have been designated by the FSB as global systemically important insurers ("**G-SIIs**") and reinsurance companies face potential designation as G-SIIs. G-SIIs were expected, as of January 2019, to be subject to a new basic capital requirement ("**BCR**"), which in turn would form the basis for calculating a higher loss absorbency ("**HLA**") requirement. In November 2018, the FSB announced it was suspending further designations, and in 2022 will determine whether to discontinue G-SII designations altogether, based on an assessment of progress made by the International Association of Insurance Supervisors ("**IAIS**"), an international body that represents insurance regulators and supervisors, in establishing a new holistic framework for systemic risk that is expected to be adopted in late 2019 and implemented in 2020. The new framework proposes to move away from the binary G-SII approach in which certain additional policy measures are only applied to a relatively small group of insurers to an approach with a proportionate application of an enhanced set of policy measures targeted at the exposures and activities that can lead to systemic risks from the insurance sector as a whole. The IAIS also announced that the HLA would not be implemented before the start of 2022 and would not be automatically applicable within the new framework but would only be applied on a case-by-case basis by supervisory intervention. The FSB has stated that it would review in November 2022 whether the list of G-SIIs should be eliminated or, in light of initial implementation of the IAIS's new framework, re-established. As the scope and implications of the proposed new regime are still evolving, it is unclear what the consequences will be for us. In addition, large internationally active insurance groups ("**IAIGs**"), which include G-SIIs, may become subject to a risk-based group-wide global insurance capital standard ("**ICS**"), which currently is scheduled for adoption in 2024/5. The IAIS is also modernizing and developing Insurance Core Principles ("**ICPs**"), which apply to insurance companies regardless of size and international exposures.

Europe. In Europe, national laws transposing the Solvency II Directive 2009/138/EC ("**Solvency II**") apply to our legal entities organized in the EEA. The European Insurance and Occupational Pensions Authority ("**EIOPA**") has focused on the consistent application of rules throughout the EEA. In Switzerland, we are subject to the Federal Act on the Supervision of Insurance Companies, which entered into force on January 1, 2006 (as amended from time to time, the "**Swiss Insurance Supervision Act**") and the Federal Ordinance on the Supervision of Private Insurance Companies (Insurance Supervision Ordinance, ISO) (as further amended January 1, 2016, the "**Swiss Insurance Supervision Ordinance**"). The 2016 revisions to the Swiss Insurance Supervision Ordinance were designed in large part to enable Swiss regulation to be treated as equivalent for Solvency II purposes, which among other things allow local regulators in the EEA to rely on group supervision by FINMA. The European Commission has granted Switzerland full equivalence for Solvency II purposes. The Swiss Insurance Supervision Ordinance provides for disclosure obligations, introduced Own Risk and Solvency Assessments ("**ORSA**") requirements and introduced qualitative and quantitative liquidity requirements. The Swiss Insurance Supervision Act also introduced a basis for submitting unregulated entities domiciled in Switzerland providing material support to regulated entities within an insurance/reinsurance group to FINMA oversight related to insolvency and bankruptcy rules.

Withdrawal of the United Kingdom from the European Union could alter the U.K. regulatory regime (including the United Kingdom's solvency capital regime) as the current regime is drawn largely from EU directives and regulations. The prospective loss of passporting rights between the United Kingdom and the European Union following such a withdrawal may, among other things, result in some cross-border business where the underlying risk is located overseas no longer being written from the United Kingdom and, depending on the future trading relationship between the European Union and the United Kingdom, result in the loss of premiums. With some form of transitional arrangement, insurance market premiums in the U.K. market are expected to decline, while in the event of a "cliff-edge" exit, the premium loss for the market could be significant. See "We are currently subject to, and in the future may be subject to other, regulations that impact the solvency capital that we have and must hold, as well as calculations and processes behind the solvency ratios that apply to us on both a group and solo basis." for further information.

United States. The regulation of reinsurance companies in the United States is primarily carried out within comprehensive state legal and regulatory frameworks. However, regulatory reforms prompted by the financial

crisis introduced an overlay of a framework for regulation of the insurance industry, in addition to ad hoc, issue-specific federal regulation of reinsurance. Our U.S. reinsurance subsidiaries are primarily regulated under the insurance statutes (including holding company regulations) of various states. These include the states where our U.S. reinsurance subsidiaries are domiciled (Missouri, New Hampshire, New York, Texas and Vermont) and each state where a subsidiary is licensed to do business. Currently, our principal operating subsidiaries are generally licensed, approved or accredited reinsurers, or are otherwise permitted to sell reinsurance in all fifty states, the District of Columbia and Puerto Rico, although this varies by subsidiary.

Impact on global operations. While certain regulatory processes are designed in part to foster convergence and achieve recognition of group supervisory schemes, we continue to face risks of extra-territorial application of regulations, particularly as to group supervision and group solvency requirements. In addition, regulators in jurisdictions beyond those where we have core operations increasingly are playing a far greater oversight role, requiring more localized resources and, despite a predominantly local focus, also raise issues of a cross-border nature. Furthermore, evolving regulatory schemes and requirements may be inconsistent or may conflict with each other, thereby subjecting us, particularly in light of the increasing focus on legal entities in isolation, to higher compliance and legal costs, as well as the possibility of higher operational, capital and liquidity costs. The effect of these trends could be exacerbated to the extent that the political environment results in a return to more bilateral, and less harmonized, cross-border regulatory efforts, particularly if these efforts lead to national policies based on more protectionist philosophies. We also believe that certain initiatives may have the effect of reducing diversification benefits, reducing the recognition of risk-mitigation techniques and undermining progress in introducing economic and risk-based capital regimes. As a result of the Solvency Modernization Initiative and Macro Prudential Initiative of the NAIC, we are observing legal entity supervisors placing greater emphasis on information sharing by group supervisors.

If changes are made to existing legislation or if new legislation is adopted or new regulations are promulgated covering our operations and other activities, they could increase the cost of doing business; reduce our access to liquidity; limit the scope of permissible activities or affect the competitive balance. In addition, we could be adversely impacted by changes in interpretations by regulators of existing or new regulations or by the imposition of new requirements by regulators based on discretionary authority or otherwise. Regulatory changes may also have an impact on us to the extent they result in reinsurance becoming a less attractive option for ceding companies (in the case of changes aimed at primary insurance companies), or otherwise have an adverse effect on ceding companies (in the case of changes aimed at primary insurance companies or those that have broader applicability but impact business models of primary insurance companies). Moreover, regulations aimed at financial institutions generally might impact our capital requirements and/or required reserve levels, or have other direct or indirect effects on us. These could include increased capital and liquidity requirements for our subsidiaries and constraints on our ability to move capital and liquidity intra-group. Increases in the level and scope of regulations require greater internal resources to monitor compliance and track global developments, and can also delay the writing of new business pending compliance review. With increases in the level of business in high growth markets, we also need to allocate commensurate compliance resources to address the related risks.

The regulatory landscape can be expected to continue to change over time. For example, on an international level, the IAIS process is an evolving one, and both the direct consequences as well as the indirect consequences of any designation remain uncertain. We cannot predict what additional regulatory changes will be implemented in any of the jurisdictions in which we operate as the IAIS process evolves and what any such changes may mean for how we are structured in any such jurisdiction and how aspects of our business may be affected. Positions taken by the U.S. administration may impact the pace and nature of regulatory reforms, which could also affect global efforts. Moreover, we cannot predict whether the FSB will endorse the new IAIS framework or retain the existing G-SII approach, or what regulatory changes may apply in the future to our ceding companies in the context of broader designations of reinsurers as systemically important.

We also cannot predict the effect of any regulatory changes on our reinsurance or investment activities, our financial condition, results of operations, liquidity and capital, or generally on our access to funding. Changes may only impact new business or have a broader effect. We typically price reinsurance, including our long tail business, on current capital requirements and any increase in capital requirements could impair that pricing, leading to lower profit. In view of efforts to achieve more coordinated regulatory intervention on a global basis, the pace and nature of regulatory changes affecting our business and operations may also be impacted by positions taken by the U.S. administration to the extent that the level of post-financial crisis regulatory activity in the United States is curtailed or more protectionist policies are pursued.

Ultimately, the impact on our structure, our operations and our stakeholders of the foregoing will be a function not only of the nature of the regulations, but also of the ability of regulators to agree on uniform standards and a uniform approach to regulatory jurisdiction. Operational costs are likely to increase in any event, but failure to achieve uniformity will increase such costs even further.

We are likely to be subject to regimes governing recovery and, potentially, resolution and may be subject more broadly to a new restructuring regime and, as the scope and implications of these regimes are still evolving, it is unclear what the consequences will be for us.

As part of the global regulatory response to the risk that SIFIs could fail, banks, and more recently insurance companies, have been the focus of recovery and resolution planning requirements. Recovery and resolution planning is designed to provide a blueprint for actions to maintain a group as a going concern should it become subject to a severe stress situation (recovery) and, should those actions fail, resolution in order to avoid systemic disruption and government bailouts.

In July 2018, the IAIS released for public consultation a draft overall Common Framework for the Supervision of Internationally Active Insurance Groups ("**ComFrame**") and risk-based global ICS, which includes elements covering recovery and resolution planning and a range of qualitative and quantitative requirements specific to IAIGs, as well as the supervisory processes and prerequisites for supervisors to implement ComFrame. In its current form, ComFrame proposes that the group-wide supervisor, in consultation with the host supervisors, should exercise discretion in requiring IAIGs to submit recovery and resolution plans. Swiss Re has produced recovery and resolution plans, which were subject to FINMA's review. Swiss Re could be subject to recovery and resolution action by FINMA as global supervisor or subject to local recovery and resolution actions by a host supervisor in coordination with FINMA. It is unclear the extent to which other regulators would recognize FINMA recovery and resolution actions. In addition, some host supervisors may develop local recovery and resolution planning requirements, to which our subsidiaries may be subject.

On November 14, 2018, the Swiss Federal Council initiated a consultation on a partial revision of the Swiss Insurance Supervision Act, which closed on February 28, 2019. This includes, among other things, new rules on the restructuring of reinsurance companies, including with respect to bail-in and write-off, portfolio transfers and the ability to reduce primary insurance claims. In addition, the draft bill proposes to create a new hierarchy for reinsurance claims (that are neither collateralized nor covered by tied assets) in the context of bail-in and write-off measures, which would result in such claims ranking in priority to other senior claims (such as claims arising from senior debt). Under the current legislation, reinsurance companies in financial crisis would need to be liquidated directly as the Swiss Insurance Supervision Act does not provide for the possibility of restructuring. The draft bill remains subject to approval by the Swiss Parliament and any final legislation is not expected to enter into force before 2020/2021.

The requirements that could be applicable to us were we to face capital, liquidity or other solvency risks are expected to continue to evolve and it remains unclear what requirements will apply to us and, consequently, what the implications will be for us and for our other stakeholders, including the holders of our securities.

We are currently subject to, and in the future may be subject to other, regulations that impact the solvency capital that we have and must hold, as well as calculations and processes behind the solvency ratios that apply to us on both a group and solo basis.

Switzerland. We are subject to the SST on both a group and solo basis (in the case of SRZ) and must meet the applicable ratio under the SST as a regulatory matter. In addition, we have incorporated the SST ratio into our hybrid instruments, for example, in some cases, as triggers for principal write-off, as well as being relevant to mandatory deferral of interest and the ability to redeem, purchase or exchange instruments. The SST can, and does, change over time, principally based on actions of our regulator, including FINMA adjustments on required capital.

We report our SST calculations to FINMA on an annual basis and would be required to make further reports upon the incurrence of significant losses (defined for SST ratios above 190%, as a relative reduction of the SST ratio of at least 33%; for SST ratios of 190% or less, as a relative reduction of the SST ratio of at least 20%) or crossing one of the aforementioned FINMA intervention thresholds. FINMA can also require submission of an interim report of an SST ratio on an ad hoc basis at any time, which would require calculation of an SST ratio covering different periods, and we could elect to submit interim reports on a voluntary basis. Failure to maintain an SST ratio of at least 100% would have increasingly adverse consequences for us depending on

whether the margin was between 80%-100%, between 33%-80% or below 33%. See "Regulation – General – Global Trends – Switzerland." While FINMA has a standard model for calculating the SST ratio, reinsurers may be permitted to use their own internal models. We use our own internal model, which was approved by FINMA in 2017 (based on FINMA's new internal model approval process). We remain subject to changes FINMA may require us to make to our model and to FINMA scrutiny of any changes that we may want to make to our model.

European Union. Our regulated subsidiaries in EEA member states benefit from the single license principle within the European single market. Our reinsurance carriers domiciled or established in EEA member states (including Swiss Re Europe S.A. ("**SRE**")) are subject to Solvency II requirements.

Our ability to write business in the United Kingdom out of our Luxembourg-based carrier (SRE) and any other EEA carriers that we may establish in the future pursuant to EU passporting rules will likely be affected by the withdrawal of the United Kingdom from the European Union. On March 28, 2018, the Prudential Regulation Authority (the "**PRA**") issued a new supervisory statement (SS2/18) "International insurers: the Prudential Regulation Authority's approach to branch authorization and supervision" which introduces new factors to be considered alongside the PRA's current requirements for third-country branch authorization set out in supervisory statement "Solvency II: third-country insurance and reinsurance branches" (SS44/15). Together, these supervisory statements apply to all existing and prospective insurance firms carrying out regulated activities, but not headquartered, in the United Kingdom that are not able to benefit from passporting rights, as well as EEA firms currently branching into the United Kingdom under passporting arrangements and intending to apply for PRA authorization in order to continue operating in the United Kingdom after its withdrawal from the European Union. We have applied for licenses from the PRA for the existing U.K. branches of SRE to operate as an authorized third country branch to ensure continuity of service in the U.K. market. In October 2018, the Bank of England published two consultations on its approach to amending financial services legislation under the European Union (Withdrawal) Act 2018 (CP 25/18) and changes to the PRA rulebook and onshore Binding Technical Standards (including the application of the Temporary Permissions Regime ("**TPR**")) (CP 26/18). If the United Kingdom were to withdraw from the European Union without having entered into a withdrawal agreement, our UK branch will benefit from the TPR in the United Kingdom, which would allow it to broadly continue its current operations until our application for authorization is processed by the PRA. We are actively engaging with the PRA, EEA regulators and FINMA on our operational plans following the withdrawal of the United Kingdom from the European Union and we continue to assess the regulatory implications of, and the evolvement of our contingency plans in light of, the likely outcomes of the withdrawal process.

North America. Accounting standards and statutory capital and reserve requirements for our North American reinsurance subsidiaries are prescribed by the applicable insurance regulators and the NAIC. U.S. state insurance regulators have established regulations that provide minimum capitalization requirements based on risk-based capital formulas for reinsurance companies. The risk-based capital formula for property and casualty companies adjusts statutory surplus levels for certain underwriting, asset, credit and off-balance sheet risks. In any particular year, statutory surplus amounts and risk-based capital ratios may increase or decrease depending on a variety of factors – the amount of statutory income or losses generated by our reinsurance subsidiaries (which itself is sensitive to equity market and credit market conditions), the amount of additional capital our reinsurance subsidiaries must hold to support business growth, changes in equity market levels, the value of certain fixed-income and equity securities in our investment portfolio, the value of certain derivative instruments, changes in interest rates and foreign currency exchange rates, as well as changes to the NAIC risk-based capital formulas. Most of these factors are outside of our control. Our claims paying ratings are significantly influenced by our reinsurance subsidiaries' statutory surplus amounts and risk-based capital ratios. Due to all of these factors, projecting statutory capital and the related risk-based capital ratios is complex.

Evolving global standards. Separately, the IAIS continues to promote ORSA requirements as a key component of regulatory reform, with the development of ICP 16 (Enterprise Risk Management for Solvency Purposes). The NAIC has enacted a similar regulation – the Risk Management and Own Risk and Solvency Assessment Model Act – in the United States, and other jurisdictions are enacting similar regulations to comply with ICP 16. An ORSA will require insurance companies to issue their own assessment of their current and future risk through an internal risk self-assessment process that includes projection of solvency under base case and stress scenarios, and will allow regulators to form an enhanced view of an insurer's ability to withstand financial stress. We will continue to seek to comply with each applicable national ORSA requirement, giving rise to resource commitments and creating potential issues by reason of differing standards.

We conduct our business so as to comply with current, and evolving, regulatory standards. Some of the factors that could have a significant impact on our capital and solvency ratios, such as unexpectedly high natural catastrophe losses, are beyond our control. In addition, changes in applicable regulations or positions taken by our regulators could have the effect of increasing capital requirements to which our regulated subsidiaries are subject. Moreover, implementation of more protectionist policies in the principal markets in which we operate could prompt more protectionism in financial regulation, which in turn could constrain our ability to repatriate capital to our Switzerland-based holding companies through internal retrocession or otherwise. Were we to come close to breaching our minimum capital requirements, or were we in danger of otherwise failing to meet minimum regulatory requirements, we would have to take measures such as redeploying existing capital or raising additional capital by disposing of assets, issuing equity or debt in the capital markets, or incurring bank debt. Our ability to meet capital needs through asset sales may be constrained by market conditions and the related stress on valuations. Our ability to meet capital needs through the incurrence of debt may be limited by constraints on the general availability of credit and willingness of lenders to lend, in the case of bank funding, and adverse market conditions, in the case of capital markets debt. Efforts to increase capital generally could have a material adverse effect on our business, results of operations or financial condition, and were we unsuccessful in taking such measures, remedial regulatory solutions could be imposed on us to restore capital and solvency positions.

Regulatory scrutiny may have an adverse impact on the industry, in general, and on our business, financial condition and results of operations, in particular.

We operate in a highly regulated environment and are subject to regulation of our industry, as well as regulations of general applicability. In recent years, the reinsurance industry has been the focus of increased regulatory scrutiny as regulators in a number of jurisdictions in which we operate have conducted inquiries and investigations into the products and practices of the financial services industry. A recent example of such an inquiry is the inquiry being undertaken in Australia by the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry. In some cases, regulatory scrutiny of industry participants has led to penalties, settlements and litigation as well as calls for new regulations and reforms of certain business practices. It is difficult to predict what products, practices or parties could come under future regulatory review, and which jurisdictions would be affected, and the scope of risks is likely to increase as we expand into new product areas and arrangements, such as our Solutions business.

In addition to increases in the level of regulatory investigations and proceedings in respect of laws, rules and regulations applicable specifically to the financial services industry, there has been an increase in civil and criminal investigations and proceedings in connection with broader business conduct and market conduct rules. These include laws, rules and regulations in respect, among others, of antitrust, market abuse, bribery, money laundering, trade sanctions (also known as international trade controls), and data protection and privacy, and there is an increased tendency among regulators to pursue violations based on lower thresholds of culpability or intent or for failures to monitor or supervise employees. We and other industry players face challenges in seeking to comply with conflicting standards, such as different sanctions regimes being applied by the United States and the European Union in respect of Iran.

We could in the future be involved in investigations and regulatory proceedings arising from alleged or actual violations of any of the foregoing, which could result in adverse judgments, settlements, fines and other outcomes. The number of these investigations and proceedings involving the financial services industry has increased in recent years, and the potential scope of these investigations and proceedings has also increased, not only in respect of matters covered by our direct regulators, but also in respect of compliance with broader business conduct rules. The consequences of future investigations could include, for example, criminal or civil actions by regulators or lawsuits arising from practices under review, changes in the scope and nature of regulatory oversight of the reinsurance industry, changes to applicable accounting rules, adoption of new reporting rules, restatement of financial statements, changes to the range of products that are available and a reduction in the use of certain products, changes in the criteria used by ratings agencies and changes to practices in respect of a range of products by both providers and users of products. Investigations can also adversely impact the levels of business, and the stock prices, of industry participants or our counterparties. Any of the foregoing could adversely impact our business, financial condition and results of operations.

We are involved in legal and other proceedings from time to time, and we may face damage to our reputation or legal liability as a result.

In the ordinary course of business, we are involved in lawsuits, arbitrations, governmental investigations, regulatory proceedings and other formal and informal dispute resolution procedures, the outcomes of which will determine our rights and obligations under insurance, reinsurance or other contractual agreements. These proceedings may also impact our rights or obligations under applicable regulatory schemes. From time to time, we may institute, or be named as a defendant in, legal proceedings, and we may be a claimant or respondent in arbitration proceedings. These proceedings could involve coverage or other disputes with ceding companies, disputes with parties to which we transfer risk under reinsurance arrangements, disputes with other counterparties, disputes with regulators or supervisors, or other matters. We could also be subject to litigation or enforcement action arising from potential employee misconduct, including noncompliance with internal policies and procedures, or negligence. We depend in part on the efficacy of training programs, internal controls, internal audit and risk management oversight to reduce the likelihood of such misconduct or negligent action. Failure of the foregoing could increase the risk of adverse action against us.

We cannot predict the outcome of individual legal actions. We may settle litigation or regulatory proceedings prior to a final judgment or determination of liability. We may do so to avoid the cost, management efforts or negative business, regulatory or reputational consequences of continuing to contest liability, even when we believe we have valid defenses to liability. We may also do so when the potential consequences of failing to prevail would be disproportionate to the costs of settlement. Furthermore, we may, for similar reasons, reimburse counterparties for their losses even in situations where we do not believe that we are legally compelled to do so. The financial impact of legal risks might be considerable but may be hard or impossible to estimate and to quantify, so that amounts eventually paid may exceed the amount of reserves set aside to cover such risks. Substantial legal liability could materially adversely affect our business, financial condition or results of operations or could cause significant reputational harm, which could seriously harm our business.

Changes in tax legislation and other circumstances that affect tax calculations could adversely affect our financial condition, our results of operations and our capital position.

We are subject to taxation in a significant number of jurisdictions. Tax laws are dynamic and subject to change as new laws are passed and new interpretations of laws are issued or applied. Changes in tax laws, or the interpretation of tax laws or tax regulations in jurisdictions in which we do business, or withdrawals of tax rulings in jurisdictions such as Switzerland that have issued such rulings to Swiss Re, could increase the level of taxes we pay and changes in tax laws, or the interpretation of tax laws or tax regulations in jurisdictions relevant to our clients could adversely affect the attractiveness of certain of our products for such clients. Changes in corporate tax rates can affect the value of deferred tax assets and deferred tax liabilities, and the value of deferred tax assets could be impacted by future earnings levels as well as other factors that impact underlying assumptions. For example, on September 28, 2018, the Swiss Parliament approved a corporate tax reform, which has resulted in the abolition of the holding privilege and certain other tax privileges, with some provisions expected to be implemented at the beginning of 2020. While the passage of the proposed reforms is not yet certain, and it is too early to assess their impact, we could, for example, become subject to higher corporate income and capital taxes, which could adversely affect our results of operations.

The United States enacted significant federal income tax legislation (the "**Tax Cuts and Jobs Act**") in 2017, including a sizeable decrease in the corporate income tax rate from 35% to 21% and moving the system of corporate taxation from world-wide to quasi-territorial. The law also includes a new tax on certain payments between U.S. and non-U.S. affiliates. We have assessed the impact of the law on our current operating model, results of operations and financial condition (see "−The impact of the recent significant U.S. federal tax reform on our business, results of operations and financial condition is uncertain and may significantly affect us.").

Many countries in the European Union, as well as a number of other countries and organizations, such as the OECD, are actively considering changes to existing tax laws, including some with the potential to substantially change the current system of international taxation, which, if enacted, could increase our tax obligations in countries where we do business.

Moreover, aggressive tax enforcement is becoming a higher priority for many tax authorities, which could lead to an increase in tax audits, inquiries and challenges of historically accepted intra-group financing, intercompany fund transfers and other arrangements of insurance companies, including our arrangements. Tax authorities may also actively pursue additional taxes based on retroactive changes to tax laws.

We are required to exercise judgment when determining our provisions for income taxes and accounting for tax-related matters. We regularly make estimates where the ultimate tax determination is uncertain. The final determination of any tax investigation, tax audit, tax litigation, appeal of a taxing authority's decision or similar proceedings may differ materially from that which is reflected in our financial statements.

Any of the foregoing could adversely impact our net income, increase the costs of doing business (including due to related capital requirements), reduce access to liquidity, limit the scope of current or future business or affect the competitive balance.

The impact of the recent significant U.S. federal tax reform on our business, results of operations and financial condition is uncertain and may significantly affect us.

The Tax Cuts and Jobs Act introduced wide-ranging and complex amendments to the U.S. Internal Revenue Code of 1986, as amended (the "**Code**"). The legislation, among other things:

- introduced significant changes to corporate taxation, including a reduction in the U.S. federal corporate income tax rate from a top marginal rate of 35% to a flat rate of 21%;
- imposed a "base erosion and anti-abuse tax" ("**BEAT**") on certain U.S. corporations that make deductible payments to non-U.S. related persons in excess of specified amounts;
- shifted the U.S. taxation of multinational corporations from a tax on worldwide income to a quasi-territorial system (which, coupled with the BEAT, is designed to prevent erosion of the U.S. income tax base);
- created a new limitation on the tax deductibility of net interest expense to 30% of adjusted earnings (except for certain small businesses);
- changed rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017;
- introduced one-time taxation of accumulated offshore earnings (with offshore earnings held in cash or cash equivalents taxed at a higher rate) regardless of whether such earnings are repatriated;
- eliminated U.S. federal income tax on distributions of foreign earnings (subject to certain exceptions); and
- modified or repealed various business deductions and credits, including providing for immediate deductions for certain new investments instead of deductions for depreciation expense over time.

We have assessed the impact of the Tax Cuts and Jobs Act on our current operating model, results of operations and financial condition, including:

- the amount of deferred tax assets and deferred tax liabilities reflected in our consolidated financial statements (which will be revalued at the newly enacted corporate income tax rate);
- potential costs and risks associated with any changes to our current operating model that we may implement to address the BEAT and various other provisions;
- the impact of having to perform new and more complex types of computations and make significant judgments in interpreting the provisions of the Tax Cuts and Jobs Act; and
- the impact on accounting estimates.

Our assessment at this stage is that the Tax Cuts and Jobs Act has not had a material adverse effect on our financial condition. However, we note that, although certain uncertainties surrounding the Tax Cuts and Jobs Act have been clarified following the release of guidance and proposed regulations, several provisions remain unclear. The BEAT would significantly increase our U.S. tax liability absent favorable changes to the law, favorable implementing regulation or if BEAT risks are not mitigated by internal solutions that we adopted supported by our regulators. It is also possible that any final guidance regarding the BEAT and/or other aspects of the Tax Cuts and Jobs Act could take a different form, or that the U.S. Internal Revenue Service (the "**IRS**") could issue subsequent guidance or take positions on audit that differ from the interpretations and assumptions that we have made to date, which could have a material adverse effect on our results of operations and financial condition. In addition, it is uncertain if and to what extent various states will conform to the Tax Cuts and Jobs Act and, foreign governments may enact tax laws in response to the Tax Cuts and Jobs Act that could result in

further changes to global taxation which could have a material adverse effect on our business, results of operations and financial condition.

Risks Relating to Accounting Matters and Use of Models

Certain changes in accounting or financial reporting standards, or changes in the interpretation of standards, in respect of fair value accounting or impairments, could have a material effect on our reported financial results.

We prepare our consolidated financial statements in accordance with U.S. GAAP. Accounting standards are complex, continually evolving and potentially subject to differing interpretations by relevant authoritative bodies. For example, we account for most of our investments and certain liabilities at fair value and the use of fair value measurements is fundamental to our financial statements and is a critical accounting method. In recent years, significant changes have been made to how fair value is to be measured. Following implementation of these new valuations, certain required valuation adjustments resulted in net realized losses from assets and liabilities measured at fair value using significant unobservable inputs.

The Financial Accounting Standards Board, which is the standard setter for U.S. GAAP, and other accounting standard setters have been considering a variety of changes to accounting standards, and we cannot predict what future changes will be adopted or how they will affect us. New accounting pronouncements, as well as new interpretations of existing accounting pronouncements, can have material adverse effects on our reported financial condition and results of operations, and also require us to expend resources to enable our reporting systems and processes to accommodate the changes, which can be significant. For example, in 2018, we reported an adverse impact on net income of approximately $326 million, pre tax, due to the US GAAP Accounting Change. We expect to be impacted by new standards on accounting for long-duration contracts (effective January 1, 2021), leases (effective January 1, 2019), financial instruments (effective after December 15, 2020) and goodwill impairment (effective in 2021), although we are still evaluating the likely effect of most of these new standards on us. We are also affected by changes in International Financial Reporting Standards, including IFRS 17 (insurance contracts, effective January 1, 2021), which applies to statutory reporting of a number of our subsidiaries. In addition, we can provide no assurance that any regulatory authorities that oversee our business will not take issue with conclusions that we may reach with respect to accounting matters.

The assumptions we use in our estimates and risk models may prove to be incorrect.

We are subject to risks relating to the preparation of estimates and assumptions that our management uses, for example, as part of our risk models as well as those that affect the reported amounts of assets, liabilities, revenues and expenses in our financial statements (such as assumptions related to our capital requirements and anticipated liabilities), including assumed and ceded business. We use risk modeling to forecast insurance loss-relevant developments and use the results of our analyses of loss, premium and exposure trends to underwrite risks and allocate capital. For example, we conduct extensive research to anticipate economic, legal, political and societal changes that are relevant for casualty claims (recognizing that our risk potential has increased as the risk landscape becomes more complex and interconnected), and focus on identifying trend patterns related to natural catastrophes, cyber threats, credit defaults, mortality and morbidity to better understand the perils we cover. We and potentially the broader industry may fail to anticipate severity or frequency of losses due to faulty model assumptions, as happened, for example, with the recent wildfires in California. We may also delay entry into lines or scope of business (for example, cyber) due to the scarcity of data needed to underwrite and price underlying risks accurately.

We estimate premiums pending receipt of actual data from ceding companies, which actual data could deviate from the estimates (and could be adversely affected if premiums turn out to be lower, while claims stay the same), and we may from time to time issue preliminary estimates of the impact of natural catastrophe and man-made losses that because of uncertainties in estimating certain losses (for example, for flooding, losses typically are harder to estimate), need to be updated as more information becomes available, which updates may be significantly higher. Changes in model assumptions can impact our results of operations.

Deterioration in market conditions could have an adverse impact on assumptions used for financial reporting purposes, which could affect possible impairment of present value of future profits, fair value of assets and liabilities, deferred acquisition costs or goodwill. For example, in evaluating available-for-sale securities for other-than-temporary impairment, we undertake a quantitative and qualitative process, which is subject to risks

and uncertainties and is intended to determine whether a credit or non-credit impairment should be recognized in current period earnings or in other comprehensive income. These risks and uncertainties include changes in economic conditions, the financial condition of the issuer, changes in interest rates or credit spreads, and future recovery prospects. For securitized financial assets with cash flows, we must estimate the cash flows over the life of the asset. We also consider a range of other factors about the issuer in evaluating the cause for decline in estimated fair value and prospects for recovery. Moreover, regulators could require the use of standard models instead of permitting the use of internal models.

In connection with the foregoing, to the extent that our estimates or assumptions prove to be incorrect, it could have a material impact on underwriting results (in the case of risk models) or on reported financial condition or results of operations (in the case of accounting judgments), and such impact could be material.

Counterparty Risks

Our business, profitability and liquidity may be adversely affected by the deterioration in the creditworthiness of, or defaults by, third parties that owe us money, securities or other assets.

We could be adversely impacted by the insolvency of, or the occurrence of other credit events affecting, key ceding companies. We could also be exposed to the risk of defaults, or concerns about possible defaults, by our counterparties. Issuers or borrowers whose securities or loans we hold, trading counterparties, counterparties under swaps and other derivative contracts, clearing agents, clearing houses and other financial intermediaries may default on their obligations to us due to bankruptcy, insolvency, lack of liquidity, adverse economic conditions, operations failure, fraud or other reasons, which could also have a material adverse effect on our financial condition and results of operations. In addition, our credit risk may be exacerbated when the collateral held by us cannot be realized upon disposal or liquidation or is liquidated at prices not sufficient to recover the full amount of the financial instrument exposure due to us.

The occurrence of a major economic downturn or concerns over global economic conditions, acts of corporate malfeasance, widening credit spreads, or other events that adversely impact the issuers, guarantors or underlying collateral of securities in our investment portfolio could cause the value of our fixed maturity securities portfolio and our net income to decline and the default rate of the fixed maturity securities in our investment portfolio to increase. A ratings downgrade affecting issuers or guarantors of particular securities, or similar trends that could worsen the credit quality of issuers, such as the corporate issuers of securities in our investment portfolio, could also have a similar effect. With economic uncertainty, credit quality of issuers or guarantors could be adversely affected. Similarly, a ratings downgrade affecting a loan-backed security we hold could indicate the credit quality of that security has deteriorated. Any event reducing the value of these securities other than on a temporary basis could have a material adverse effect on our financial condition, results of operations, business and prospects.

Our business, profitability and liquidity may be adversely affected by the insolvency of, or other credit constraints affecting, counterparties in our operations.

We retrocede a portion of our reinsurance risks to third parties. Where we enter into quota share or other retrocession arrangements with third parties to transfer a portion of our reinsurance risk, we remain primarily liable on the underlying obligations, and any deterioration in creditworthiness or other development that affects the ability of such third parties to perform their obligations to us would have an adverse effect on us, and that effect could be material. Any such risk would be exacerbated to the extent the risk is concentrated.

Risks Related to the Swiss Re Corporate Structure

Our group structure continues to evolve.

Following the realignment of the corporate structure of SRL and the creation of separate business units in 2012, the asset base, liquidity position, capital profile and other characteristics of the Swiss Re Group of relevance to its counterparties changed. SRZ is a wholly-owned subsidiary of SRL, and the Guarantor Group represents only two of the four principal operating segments of the Swiss Re Group. Capital, funding, reserve and cost allocations are made at the Swiss Re Group level across the four operating segments based principally on business plans as measured against U.S. GAAP and economic value management metrics. Decisions at the Swiss Re Group level in respect of the broader Swiss Re Group could have an adverse impact on our financial condition, including our capital and liquidity levels, as well as SRZ's SST ratio. As part of the Swiss Re

Group's focus on efficient capital allocation, we expect to be paying dividends to SRL. Decisions on dividends payable by each of the operating segments, including the Guarantor Group, are made at the Swiss Re Group level based on legal entity, regulatory, capital and liquidity considerations. In addition, our results could be impacted by intra-group retrocession arrangements that are entered into for purposes of optimizing capital efficiencies of legal entities within the Swiss Re Group.

Our structure provides flexibility in the way we finance our operations and will continue to evolve over time. In 2017, the Swiss Re Group entered into a transaction with MS&AD Insurance Group Holdings ("**MS&AD**") pursuant to which MS&AD agreed to invest in the closed books segment of the Life Capital Business Unit. Swiss Re has also announced a potential transaction that is expected to result in the deconsolidation of the closed books segment of the Life Capital Business Unit. While to date we remain wholly-owned by SRL, in the future, Swiss Re may partner (for purposes of acquisitions or otherwise) with other investors in, or within, one or more of its business units or sub-groups within its business units (including the Guarantor Group), which, subject to applicable regulatory requirements, has the potential to alter its historical approaches taken in respect of capital, liquidity, funding and/or dividends, as well as other governance matters, including strategy for such business unit or sub-group and board composition at the relevant corporate level. Our structure could also change in connection with acquisitions or dispositions. The interests of holders of our debt securities could be adversely impacted by changes to our structure.

While further changes to the overall Swiss Re Group structure may not have a financial statement impact on a Swiss Re Group consolidated basis, they would impact us to the extent that operations are transferred into or from the Guarantor Group, or as a result of intra-group transactions (from the perspective of the Swiss Re Group) to the extent that we are a counterparty to any such transactions.

Risks Relating to the Notes and the Subordinated Guarantee

Investment in the Notes will be subject to the risks typically associated with debt instruments.

An investment in the Notes will involve certain risks. In particular, an investment in the Notes may give rise to:

- credit risk of the Issuer and the Guarantor, which can arise from a potential partial or total failure of the Issuer to make interest and/or principal payments that it is obligated to make under the Notes or the Guarantor to make payments that it is obligated to make under the Subordinated Guarantee;
- market risk, which can arise from market volatility and changes in credit spreads, which depends, among other things, on changes in the creditworthiness of the Issuer, the Guarantor, the probability of default, the recovery rate and the remaining term to maturity of the Notes. Changes in the general level of interest rates, credit spreads, inflation, overall economic developments and prevailing investor sentiment towards credit risk may also have a positive or negative effect on the market value of the Notes;
- ratings risk, which is the risk that ratings may not adequately reflect all of the risks of investment in the Notes or that the ratings of Notes may be suspended, downgraded or withdrawn, which may have an adverse effect on the market value and trading price of the Notes; and/or
- trading liquidity risk, which can arise from the de-listing of the Notes, or lack of over-the-counter trading for the Notes.

The Notes contain a range of features any or all of which could prove to be materially disadvantageous to the Noteholders.

An investment in the Notes will involve certain increased risks. In particular, the Notes:

- are long-dated instruments, with a scheduled maturity in 2050, and Noteholders will have no right to require a redemption of their Notes;
- are callable instruments, with the first call date falling approximately 11 years and one month after the Issue Date and a call date on each Reset Date thereafter;
- are subordinated to Issuer Senior Securities, which means that, upon an insolvency of the Issuer, Noteholders will not receive any payment on the Notes unless and until the holders of all prior ranking debt, including subordinated debt ranking senior to the Notes, have been repaid in full. See "–

Noteholders' rights to receive payment on the Notes are subordinated in right of payment to the Issuer's obligations under any Senior Securities and Noteholders' claims in respect of the Subordinated Guarantee are subordinated in right of payment to holders of existing and future Guarantor Senior Securities";

- contain provisions requiring the Issuer, or permitting the Issuer, in certain circumstances, in its absolute discretion and without assigning any reason, to defer payment of interest on the Notes, subject to provisions in the Conditions relating to Deferred Interest. See "– Interest payments on the Notes must be deferred in certain circumstances and may be deferred at any time by the Issuer, except in certain circumstances"; and
- contain provisions, including in respect of a redemption or repurchase of the Notes and the Issuer's ability to pay interest that has been deferred on the Notes, which may require the Issuer to obtain a Consent of FINMA, and to the extent required, the need to obtain a Consent of FINMA may cause a delay in the Issuer's payments to Noteholders or restrict the Issuer's ability to undertake certain actions if such consent is not obtained.

Interest payments on the Notes must be deferred in certain circumstances and may be deferred at any time by the Issuer, except in certain circumstances.

The Issuer must, with respect to any Interest Payment Date, defer the payment of any Interest Amount or Solvency Shortfall on the Notes, as applicable, if a Solvency Event has occurred and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) or would occur as a result of such payment. The Issuer also may, under certain circumstances, with respect to any Interest Payment Date, elect in its sole discretion to defer, in whole or in part, the payment of interest on the Notes, which accrued during the Interest Period to (but excluding) such Interest Payment Date.

If payment of interest on the Notes is deferred, such payment must only be made if the requirements set out in Condition 3.5 relating to Deferred Interest are fulfilled. Any Deferred Interest will not itself accrue interest. While the deferral of interest payments continues, the Issuer is not prohibited from making payments on any instrument ranking senior to the Notes. In such event, the Noteholders are not entitled to claim immediate payment of the Deferred Interest.

See "Terms and Conditions of the Notes – Interest."

Noteholders' rights to receive payment on the Notes are subordinated in right of payment to the Issuer's obligations under any Issuer Senior Securities and Noteholders' claims in respect of the Subordinated Guarantee are subordinated in right of payment to holders of existing and future Guarantor Senior Securities.

The Notes will constitute unsecured and subordinated obligations of the Issuer. Noteholders' rights and claims in respect of the Notes are subordinated to the claims of Issuer Senior Creditors in respect of the Issuer's obligations under any Issuer Senior Securities. In the event of the liquidation, dissolution, insolvency, compromise, composition with creditors (*concordat préventif de la faillite*), bankruptcy (*faillite*), controlled management proceedings (*gestion controlée*), suspension of payment (*sursis de paiement*), provisional administration (*administration provisoire*) or other similar proceeding for the avoidance of insolvency of, or against, the Issuer, the claims of Noteholders in respect of the Notes, will be subordinated to the claims of Issuer Senior Creditors, so that in any such event no amounts shall be payable in respect of the Notes unless the claims of all Issuer Senior Creditors (that is, holders of existing and future Issuer Senior Securities) shall have first been satisfied in full. In such liquidation, dissolution, insolvency, compromise, composition with creditors (*concordat préventif de la faillite*), bankruptcy (*faillite*), controlled management proceedings (*gestion controlée*), suspension of payment (*sursis de paiement*), provisional administration (*administration provisoire*) or other similar proceeding for the avoidance of insolvency of, or against, the Issuer, Noteholders may recover proportionately less than the Issuer Senior Creditors or Noteholders may not recover any amounts in respect of their Notes.

The Guarantor's obligations under the Subordinated Guarantee will constitute unsecured and subordinated obligations of the Guarantor. Noteholders' rights and claims in respect of the Subordinated Guarantee are subordinated to the claims of Guarantor Senior Creditors in respect of the Guarantor's obligations under any Guarantor Senior Securities. In the event of the liquidation, dissolution, insolvency, compromise or other proceedings for the avoidance of insolvency of, or against, the Guarantor, the claims of Noteholders in respect

of the Subordinated Guarantee, will be subordinated to the claims of Guarantor Senior Creditors, so that in any such event no amounts shall be payable in respect of the Subordinated Guarantee unless the claims of all Guarantor Senior Creditors (that is, holders of existing and future Guarantor Senior Securities) shall have first been satisfied in full. In such liquidation, dissolution, insolvency, compromise or other similar proceeding for the avoidance of insolvency of, or against, the Guarantor, Noteholders may recover proportionately less than the Guarantor Senior Creditors or Noteholders may not recover any amounts in respect of their Notes.

The Notes may not be a suitable investment for all investors.

Each potential investor in the Notes must determine the suitability of that investment in light of their circumstances. In particular, each potential investor should:

- be willing to hold their investment in the Notes for the long term and not need to liquidate their investment in the short term;
- have sufficient knowledge and experience to make a meaningful evaluation of the Notes, the merits and risks of investing in the Notes, including without limitation an understanding of the implications of the deferral of interest features, and the information contained in or incorporated by reference into this Offering Memorandum;
- have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of their particular financial situation, an investment in the Notes and the impact that such an investment may have on their overall investment portfolio;
- have sufficient financial resources and liquidity to bear all of the potential risks of an investment in the Notes, including because the currency for principal or interest payments may differ from the potential Noteholder's currency;
- understand thoroughly the Conditions and be familiar with the behavior of financial markets;
- be able to evaluate (either alone or with the help of a financial advisor) possible scenarios for economic, interest rate and other factors that may affect an investment in the Notes and their ability to bear the applicable risks; and
- be aware that there are a variety of hybrid and contingent capital instruments being issued in the market, including both dated and undated instruments, and that there are significant differences among them as to their respective terms and conditions.

Legal investment considerations may restrict certain purchasers from investing in the Notes.

The investment activities of certain investors may be subject to investment laws and regulations, or review or regulation by certain authorities. Prospective Noteholders should consult their legal advisers to determine whether and to what extent: (i) the Notes are legal investments for them; (ii) the Notes can be used as collateral for various types of borrowing; and (iii) other restrictions apply to a purchase of the Notes. Financial institutions considering investing in the Notes should consult their legal advisers or the appropriate regulators to determine the appropriate treatment of the Notes under any applicable rules or regulations.

Noteholders may be required to bear the financial risks of an investment in the Notes for a significant period of time.

Noteholders should be aware that they may be required to bear the financial risks of an investment in the Notes until their Scheduled Maturity Date, or for longer if the principal amount of the Notes is not due and payable on the Scheduled Maturity Date because a Solvency Event has occurred and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) or would occur as a result of the redemption of the Notes. See "Terms and Conditions of the Notes – Redemption."

If the principal amount of the Notes is not due and payable on the Scheduled Maturity Date because of the foregoing, Noteholders will only have an opportunity to receive the principal amount and other amounts that would have been due on the Scheduled Maturity Date when the Solvency Event ceases (if applicable) or in the event of the Issuer's insolvent winding-up, subject to the priority rights of Issuer Senior Creditors to receive payments owed to them by us. If the Notes are not redeemed on the Scheduled Maturity Date due to the reasons set out above, Noteholders will, subject to any required or optional deferral, continue to receive interest but will not receive any additional compensation for the postponement of the redemption.

Noteholders will have no right to call, or require the Issuer to call, for the redemption of the Notes. Although the Notes may be redeemed in certain circumstances described below under "—The Issuer may elect to redeem the Notes under certain circumstances, and such redemption might occur when the prevailing interest rates and/or credit spreads are low," the Issuer may redeem or purchase the Notes only if no Solvency Event has occurred that is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured), FINMA has given its Consent and other applicable requirements are met, as more fully described in the Conditions; any of these circumstances may cause a delay in our payment to Noteholders. In the case of a redemption or purchase that is within five years of the Issue Date, if required at the relevant time by any rules and regulations then applicable to the Guarantor, such redemption or purchase will need to be funded out of the proceeds of a new issuance of capital of at least the same quality as the Notes and otherwise permitted under relevant rules and regulations

Noteholders only have limited enforcement remedies in the event of non-payment of sums due under the Notes (see "-There are limited remedies available under the Conditions").

Accordingly, Noteholders should be aware that they may be required to bear the financial risks associated with an investment in long-dated instruments for a significant period of time.

The Issuer may elect to redeem the Notes under certain circumstances, and such redemption might occur when the prevailing interest rates and/or credit spreads are low.

The Issuer may, subject to certain conditions, redeem the outstanding Notes, in whole but not in part, in cash at their principal amount, together with any accrued and unpaid interest, if any, and any outstanding Deferred Interest as of the date on which the Notes are redeemed (but excluding such date), on the First Optional Redemption Date (being April 30, 2030) and thereafter on each Reset Date. Notwithstanding market expectations as to the exercise of the Issuer's call option, the Issuer would not expect to redeem or repurchase Notes prior to the Final Maturity Date unless it were in its interest to do so. In this regard, the Issuer may take into account various factors, including market conditions, regulatory, rating and other benefits afforded by the Notes and the relative cost of refinancing the Notes at the relevant time. Any decision to redeem Notes prior to the Final Maturity Date will be taken independently and without consideration for any other outstanding callable securities of the Issuer or the Guarantor Group.

Subject to certain conditions, the Notes are also redeemable, in whole but not in part, at any time on the occurrence of an Accounting Event (relating to the accounting treatment of the Notes), a Ratings Methodology Event (relating to the equity credit assigned to the Notes) or a Regulatory Event (which includes a disqualification of any Notes from Tier 2 Capital for group or, if applicable, solo solvency purposes) or a Recalculation Event or Special Tax Event that is continuing.

As such event could occur at any time after the Issue Date, it is possible that the Issuer would be able to redeem all outstanding Notes at any time after such date. In any such case, Noteholders will not receive any compensation over and above the Early Redemption Amount (as defined in the Conditions).

In any case, the Issuer may redeem or purchase the outstanding Notes only if no Solvency Event has occurred that is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) and if FINMA has given its Consent and other applicable requirements are met, all as more fully described in the Conditions. In determining whether or not to give its Consent to any proposed redemption FINMA will not have regard to the interests of the Noteholders. If the Issuer redeems the Notes in any of the circumstances mentioned above, there is a risk that the Notes may be redeemed at times when prevailing interest rates and/or credit spreads may be relatively low, in which case Noteholders may only be able to reinvest the redemption proceeds in securities with a lower yield.

In addition, the optional redemption feature of the Notes may limit their market value. During any period when the Issuer has the right to elect to redeem the outstanding Notes, or if there is a perception in the market that any Accounting Event, Ratings Methodology Event, Regulatory Event, Recalculation Event or Special Tax Event may occur giving rise to such right or requirement, the market value of the Notes generally will not rise substantially above the price at which they can be redeemed.

The Issuer and the Guarantor are not subject to limits on the issuance of securities or other obligations, which may reduce the amount recoverable by Noteholders in certain circumstances.

There is no restriction on the amount of securities that the Issuer, the Guarantor and/or their respective subsidiaries may issue or guarantee that rank senior to the Notes and/or the Subordinated Guarantee, as applicable, or on the amount of securities that the Issuer, the Guarantor and/or their respective subsidiaries may issue or guarantee that rank *pari passu* with the Notes. The issuance of such securities may reduce the amount recoverable by Noteholders on liquidation, dissolution, insolvency, compromise, composition with creditors (*concordat préventif de la faillite*), bankruptcy (*faillite*), controlled management proceedings (*gestion controlée*), suspension of payment (*sursis de paiement*), provisional administration (*administration provisoire*) or other similar proceeding for the avoidance of insolvency of, or against,, the Issuer, and/or liquidation, dissolution, insolvency, compromise or other proceeding for the avoidance of insolvency of, or against, the Guarantor, as applicable, or may increase the likelihood that the Issuer may elect or be required to defer interest payments under the Notes.

Noteholders are exposed to risks associated with fixed interest rate securities up to the First Optional Redemption Date and securities that have a resettable interest rate from such date until the Final Maturity Date.

Unless previously redeemed or purchased and cancelled in accordance with the Conditions, the Notes will accrue interest at a fixed rate from (and including) the Issue Date, to (but excluding) the First Optional Redemption Date. A holder of a security with a fixed interest rate is exposed to the risk that the price of such security falls as a result of increasing market interest rates. While the interest rate of the Notes is fixed until (but excluding) the First Optional Redemption Date and then fixed for each year thereafter from (and including) the relevant Reset Date to (but excluding) the next succeeding Reset Date following a resetting of the interest rate on each Reset Date, the interest rates in the capital markets (market interest rates) typically change on a daily basis. As the market interest rate changes, the price of the Notes changes, typically in the opposite direction; if the market interest rate increases, the price of the Notes would typically fall, and if the market interest rate falls, the price of the Notes would typically increase. Therefore, Noteholders should be aware that movements of the market interest rate can adversely affect the price of the Notes and can lead to losses if Noteholders sell their Notes.

If the Notes are not redeemed or purchased and cancelled in accordance with the Conditions on or prior to a Reset Date, interest on the Notes will accrue thereafter at a new fixed interest rate that is resettable at each subsequent Reset Date. A holder of a security with a resettable interest rate is exposed to the risk of fluctuating interest rate levels and uncertain interest income. Fluctuating interest rate levels of a security make it impossible to determine the yield of such security in advance.

There are limited remedies available under the Conditions.

As described more fully in "Terms and Conditions of the Notes – Enforcement," the Notes contain certain enforcement rights, confined to non-payment of sums due on the Notes for specified periods and the commencement of proceedings for the winding up of the Issuer. Upon the occurrence of such events under the Notes, Noteholders have only limited enforcement remedies consisting of, in the case of enforcing payment of sums due, instituting proceedings for, and/or proving in, the winding-up of the Issuer or the Guarantor, as applicable.

In certain instances, the Issuer could substitute the obligor under the Notes without the consent or approval of the Noteholders.

The Issuer may, without consent of the Noteholders, substitute itself in respect of all rights and obligations arising under or in connection with the Notes with a New Issuer provided, among other things that no Accounting Event, Recalculation Event, Special Tax Event, Ratings Methodology Event or Regulatory Event would be triggered by such substitution and that the Subordinated Guarantee continues to apply *mutatis mutandis* in respect of the obligations of the New Issuer under the Notes or a replacement subordinated guarantee is issued by the Guarantor on terms and with effect being not materially less favorable (as described more fully in the Conditions). The substitution of the Issuer under the Notes could have an adverse effect on Noteholders.

In certain instances the Issuer could substitute or vary the terms of the Notes, the Subordinated Guarantee and/or the Agency Agreement, and Noteholders may be bound by certain other amendments to the Notes, the Subordinated Guarantee and/or the Agency Agreement to which they did not consent.

The Conditions contain provisions for calling meetings of Noteholders to consider matters affecting their interests generally. These provisions permit defined majorities to bind all Noteholders, including Noteholders who do not attend and vote at the relevant meeting and Noteholders who vote in a manner contrary to the majority.

Further, the Issuer and parties to the Agency Agreement may, without the consent or approval of the Noteholders, make such amendments to the terms of the Notes, the Subordinated Guarantee and/or the Agency Agreement that are of a formal, minor or technical nature and, in the opinion of the Issuer, are not materially prejudicial to the interests of the Noteholders or made to correct a manifest or proven error, and any other modification and waiver or authorization of any breach or proposed breach, of any of the provisions of the Agency Agreement that is in the opinion of the Issuer not materially prejudicial to the interests of the Noteholders.

In addition, if the Reset Rate of Interest Determination Agent has determined a Replacement Rate in accordance with the Conditions, then for purposes of determining the 1-year Mid-Swap Rate on each Reset Rate of Interest Determination Date falling on or after such determination, the Reset Rate of Interest Determination Agent will also determine changes (if any) to the business day convention, the definition of "Business Day," the Reset Rate of Interest Determination Date, the day count fraction and any method for obtaining the Replacement Rate, including any adjustment factor needed to make such Replacement Rate comparable to the Screen Page 1-year Mid-Swap Rate, in each case in a manner that is consistent with industry-accepted practices for such Replacement Rate, without the consent or approval of the Noteholders. The use of any such Replacement Rate to determine the Reset Rate of Interest and any such changes to the Conditions may result in the Notes performing differently (including paying a lower Reset Rate of Interest for any Interest Period after the First Optional Redemption Date) than they would do if the 1-year Mid-Swap Rate were to continue to apply in its current form. See "-Uncertainty about the future of EURIBOR and discontinuation of the Screen Page 1-year Mid-Swap Rate could adversely affect the Notes." for further information.

Credit ratings assigned to the Notes may not reflect all risks and may be lowered.

The rating(s) of the Notes may not reflect the potential impact of all risks that may affect the value of the Notes. A credit rating is not a recommendation to buy, sell or hold securities and may be revised or withdrawn by the rating agency at any time. Ratings may be solicited or unsolicited. Rating agencies may also change their methodologies for rating securities with features similar to the Notes in the future. If the Notes were to become subject to an unsolicited rating and/or rating agencies were to change their practices for rating such securities in the future and the rating(s) of the Notes were to be subsequently lowered or withdrawn, this may have a negative impact on the market price of the Notes.

Noteholders may be subject to exchange rate risks and exchange controls.

The Issuer will pay principal and interest on the Notes in euro. This presents certain risks relating to currency conversions if a Noteholder's financial activities are denominated principally in a currency or currency unit (the "**Noteholder's Currency**") other than the euro. These include the risk that exchange rates may significantly change (including changes due to devaluation of the euro or revaluation of the Noteholder's currency) and the risk that authorities with jurisdiction over the Noteholder's currency may impose or modify exchange controls. An appreciation in the value of the Noteholder's currency relative to the euro would decrease the Noteholder's currency-equivalent yield on the Notes, the Noteholder's currency equivalent value of the principal payable on the Notes and the Noteholder's currency equivalent market value of the Notes.

Government and/or monetary authorities may impose (as some have done in the past) exchange controls that could adversely affect an applicable exchange rate as well as the availability of euro. As a result, you may receive less interest or principal than expected, or no interest or principal.

Active liquid trading markets for the Notes may not develop, and the transfer of the Notes will be subject to restrictions.

The Notes have not been registered under the Securities Act. Accordingly, the Notes can only be offered or sold pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. The Issuer does not intend subsequently to register the Notes for resale or to exchange a new series of notes registered under the Securities Act for the Notes. In addition, there currently is no public market for the Notes. Although application will be made to the Luxembourg Stock Exchange for the listing of the Notes on the Official List and to trading on the Euro MTF, we cannot assure you that we will obtain or be able to maintain such a listing, or that, if listed, a liquid trading market will develop.

There can be no assurance as to the liquidity of any market that may develop for the Notes, the ability of Noteholders to sell them or the price at which the Noteholders may be able to sell them. The liquidity of any market for the Notes will depend on the number of Noteholders, prevailing interest rates, the market for similar securities and other factors, including general economic conditions and our own financial condition, performance and prospects, as well as recommendations by securities analysts. There can be no assurance that if a market for the Notes were to develop, such a market would not be subject to disruptions or that it will be maintained.

The market value of the Notes may be influenced by unpredictable factors and may be volatile.

Several factors, many of which are beyond the Issuer's control, will influence the value of the Notes and the price, if any, at which securities dealers may be willing to purchase or sell the Notes in the secondary market, including:

- variations in the periodic operating results or financial condition of the Issuer and/or the Guarantor;
- changes in investor perceptions of the Issuer and/or the Guarantor;
- the creditworthiness of the Guarantor;
- the Guarantor's required solvency margin from time to time;
- supply and demand for the Notes;
- economic, financial, political, regulatory or judicial events or developments that affect the Issuer and/or the Guarantor, or the financial markets generally;
- interest and yield rates in the market; and/or
- the time remaining until the Issuer can call the Notes or the Notes mature.

Accordingly, if a Noteholder sells its Notes in the secondary market, it may be unable to obtain a price equal to the principal amount of the Notes or a price equal to the price that it paid for the Notes.

The Notes and the Subordinated Guarantee contain no restrictive financial covenants or covenants governing the Issuer's or Guarantor's operations or limiting the Issuer's or Guarantor's ability to incur substantially more debt, merge, effect asset sales or otherwise effect significant transactions, which may affect the Issuer's or Guarantor's ability to satisfy its obligations under the Notes or the Subordinated Guarantee, as applicable, or may have other adverse effects on the Noteholders.

The Notes and the Subordinated Guarantee do not contain any maintenance covenants (that would require the Issuer or the Guarantor to meet financial ratios or minimum financial requirements) or negative covenants that restrict the Issuer's or the Guarantor's or any of their respective subsidiaries' ability to incur more indebtedness (either secured or unsecured), pay dividends or make other distributions, incur liens, repurchase any of its securities or undertake other similar actions. The Notes and the Subordinated Guarantee also do not contain covenants governing the Issuer's or the Guarantor's or any of their respective subsidiaries' operations and do not limit their ability to enter into a merger, asset sale, related party transaction or other significant transaction that could materially alter their existence, jurisdiction of organization or regulatory regime and/or the composition and business of the Issuer, the Guarantor or the Guarantor Group. In the event the Issuer enters into, or becomes subject to, any such transaction, Noteholders could be materially and adversely affected.

The Notes do not limit the Issuer, the Guarantor or any other member of the Guarantor Group's ability to engage in transactions with other members of the Swiss Re Group.

The Notes do not contain any restrictions on transactions by the Issuer, the Guarantor or any other member of the Guarantor Group with other members of the Swiss Re Group, and any such transactions may not be undertaken on an arm's length basis. The effect of any such transactions may not be in the best interests of the Noteholders.

Payments of Additional Amounts or recalculated interest are subject to exceptions and may not be enforceable.

Although the Conditions provide, in certain circumstances, for the payment of Additional Amounts, or the Recalculation of Interest (each, as defined in the Conditions) by the Issuer, failing which the Guarantor, if it becomes obligated by law to make any withholding or tax deduction in respect of any Interest Amount payable by it in respect of the Notes or the Subordinated Guarantee, as applicable, the obligation to pay such Additional Amounts or recalculate interest, is subject to certain exceptions. Under Swiss law, the obligation to pay Additional Amounts for the deduction of withholding or deduction required by Swiss law is not valid and, thus, may prejudice the validity and enforceability of anything to the contrary contained in the Notes, the Subordinated Guarantee or any other document or agreement.

Potential changes in Swiss withholding tax legislation could impact Noteholders.

On November 4, 2015, the Swiss Federal Council announced that it had mandated the Swiss Federal Finance Department to appoint a group of experts to prepare a proposal for a reform of the Swiss withholding tax system. The proposal is expected to, among other things, replace the current debtor-based regime applicable to interest payments with a paying agent-based regime for Swiss withholding tax. This paying agent-based regime is expected to be similar to the one contained in the draft legislation published by the Swiss Federal Council on December 17, 2014, which was subsequently withdrawn on June 24, 2015. However, on October 23, 2017, the Swiss Federal Economic Affairs and Taxation Committee of the Swiss National Council filed a parliamentary initiative reintroducing the request to replace the current debtor-based regime applicable to interest payments with a paying agent-based system for Swiss withholding tax. The initiative requests the implementation of a paying agent-based system that (i) subjects all interest payments made to individuals resident in Switzerland to Swiss withholding tax and (ii) provides an exemption from Swiss withholding tax for interest payments to all other persons (including Swiss corporations). If any such a new paying agent-based regime were to be enacted and were to result in the deduction or withholding of Swiss withholding tax on any interest payments in respect of a Note by any person other than the Issuer, failing which the Guarantor, the Noteholder would not be entitled to receive any Additional Amounts as a result of such deduction or withholding under the terms of the Notes.

There is a possibility of U.S. reporting and withholding tax on payments under the Notes.

Sections 1471 through 1474 of the U.S. Internal Revenue Code of 1986, as amended (the "**Code**," and, such sections, together with any successor provisions, thereto, regulations promulgated thereunder, official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, any intergovernmental agreement between the United States and another jurisdiction to implement Sections 1471 through 1474 of the Code and any legislation, rules or practices implementing such an agreement "**FATCA**"), impose a 30% withholding tax on certain types of U.S.-source payments made to a "foreign financial institution," unless the foreign financial institution enters into an agreement with the U.S. Treasury to, among other things, undertake to identify accounts held by certain U.S. persons or U.S.-owned entities, annually report certain information about such accounts, and withhold 30% on payments to account holders whose actions prevent it from complying with these and other reporting requirements (an "**FFI Agreement**"), or unless the non-U.S. financial institution is otherwise exempt from those requirements. In certain jurisdictions, including Switzerland, that have entered into an intergovernmental agreement between the United States and such jurisdiction to implement FATCA, financial institutions must register with the U.S. Internal Revenue Service (the "**IRS**") and agree to comply with the terms of an FFI Agreement in order to avoid being subject to withholding tax as described above. In addition, FATCA imposes a 30% withholding tax on the same types of payments to a "passive non-financial foreign entity" unless the entity certifies that it does not have any substantial United States owners or the entity furnishes identifying information regarding each substantial United States owner.

The Issuer has determined that it is not a financial institution. However, this determination is highly factual and is subject to change. If the Issuer were to become a financial institution, it would, in order to avoid being subject to withholding tax as described above, register with the IRS and comply with the requirements of FATCA, including due diligence, reporting and withholding. The IRS is considering foreign passthru payments and it is not clear how this rule will ultimately apply to the Issuer or the Notes. This would require the Issuer to withhold at a rate of 30% on any "foreign passthru payments" (as defined under FATCA) in respect of the Notes made after the publication of final regulations relating to "passthru payments" to any Noteholders that has not provided information required to establish that the accountholder is exempt from withholding under FATCA. Recently released Proposed U.S. Treasury Regulations defer the implementation date of withholding on foreign passthru payments until two years after the published date of the final regulations defining the term "foreign passthru payment." In addition, if the Issuer were to become a financial institution, it may be obligated to provide certain information to the IRS regarding the Noteholders that are certain types of United States persons or entities owned directly or indirectly by such United States persons. If a Noteholder is subject to withholding on account of FATCA, there will be no additional amount payable by way of compensation to the Noteholder for the deducted amount.

FATCA is particularly complex. Each Noteholder is urged to consult its own tax advisor to obtain a more detailed explanation of FATCA and to learn how FATCA might affect each Noteholder in its particular circumstance.

Noteholders are subject to limitations on the jurisdictions in which they can bring legal action or proceedings arising out of or in connection with the Notes and the Subordinated Guarantee, and changes of law and regulations could adversely impact the rights of Noteholders.

The Agency Agreement and the Notes (except for the subordination provisions in Condition 2.1, which are governed by the laws of Luxembourg) and any non-contractual obligations arising out of or in connection with the Agency Agreement and the Notes are governed by, and shall be construed in accordance with, English law. The Subordinated Guarantee is governed by, and shall be construed in accordance with, Swiss law. The subordination provisions in the Notes are governed by the laws of Luxembourg. Moreover, we are subject to Swiss law and regulations by reason of our being subject to FINMA supervision (see "Regulation – Switzerland") and, to the extent that applicable regulatory regimes were to apply to reinsurance companies, provisions that have become effective for banks in the EEA, our indebtedness could become subject to such provisions. We cannot predict the impact of any possible judicial decision or change to English, Luxembourg or Swiss law or administrative practice that applies after the date of this Offering Memorandum.

Noteholders will not have an unlimited choice of jurisdictions in which to bring a legal action or proceedings in respect of the Notes or the Subordinated Guarantee, as the case may be. Noteholders' rights to bring legal action or proceedings in respect of the Notes are limited to the courts of England, or any court of competent jurisdiction in Switzerland or Luxembourg in accordance with the Conditions. Noteholders' rights to bring legal action or proceedings in respect of the Subordinated Guarantee are limited to the courts of the City of Zurich (venue being Zurich 1), and, where the law permits, the Commercial Court of the Canton of Zurich, with the right of appeal, where the law permits, to the Swiss Federal Supreme Court, the decision of which shall be final. Accordingly, Noteholders may be restricted from bringing a legal action or proceedings in various jurisdictions in which the assets of the Issuer or the Guarantor, as applicable, are located from time to time (other than England, Luxembourg and Switzerland).

Uncertainty about the future of EURIBOR and discontinuation of the Screen Page 1-year Mid-Swap Rate could adversely affect the Notes.

In 2017, the Chief Executive of the United Kingdom Financial Conduct Authority (the "**FCA**"), which regulates LIBOR, announced that it does not intend to continue to persuade, or use its powers to compel, panel banks to submit rates for the calculation of LIBOR to the administrator of LIBOR after 2021. In 2018, the FCA further announced that the LIBOR benchmark may cease to be a regulated benchmark under Regulation (EU) 2016/1011 (the "**Benchmarks Regulation**"). While the announcements related to LIBOR, similar concerns may be applicable to EURIBOR.

The FSB also made certain recommendations to reform major interest rate benchmarks, such as key interbank offered rates. It is not possible to predict whether, and to what extent, banks will continue to provide EURIBOR submissions to the administrator of EURIBOR going forward. The European Central Bank (the "**ECB**") and other European authorities have discussed proposals for alternative benchmarks. For example, the ECB

announced plans for a new overnight rate for interbank unsecured lending among Euro-area banks in September 2017. The impact of such an overnight rate on six-month EURIBOR is currently unclear.

Investors should be aware that, if EURIBOR were discontinued or otherwise unavailable, the rate of interest on the Notes for periods from (and including) the First Optional Redemption Date may be determined by the fall-back provisions applicable to the Notes. This may in certain circumstances result in the effective application of a fixed rate based on the rate which was last observable on the relevant Screen Page.

In addition, any changes to the administration of the 1-year Mid-Swap Rate (or changes to its component parts, including to EURIBOR or the manner in which it is calculated) or the emergence of alternatives to the 1-year Mid-Swap Rate as a result of these potential reforms, may cause the 1-year Mid-Swap Rate to perform differently from in the past or to be discontinued, or there could be other consequences which cannot be predicted. The potential discontinuation of the 1-year Mid-Swap Rate or changes to its administration could require changes to the way in which the Reset Rate of Interest is calculated on the Notes from (and including) the First Optional Redemption Date. Uncertainty as to the nature of alternative reference rates and as to potential changes to the 1-year Mid-Swap Rate may adversely affect the 1-year Mid-Swap Rate, the return on the Notes and the trading market for securities based on the 1-year Mid-Swap Rate. The development of alternatives to the 1-year Mid-Swap Rate may result in the Notes performing differently than would otherwise have been the case if such alternatives to the 1-year Mid-Swap Rate had not developed. Any such consequence could have a material adverse effect on the value of, and return on, the Notes.

The Conditions also provide that, if the Screen Page 1-year Mid-Swap Rate has been discontinued, the Issuer will appoint a Reset Rate of Interest Determination Agent to determine a Replacement Rate to be used in place of the 1-Year Mid-Swap Rate. The use of any such Replacement Rate to determine the Reset Rate of Interest may result in the Notes performing differently (including paying a lower Reset Rate of Interest for any Interest Period after the First Optional Redemption Date) than they would do if the 1-year Mid-Swap Rate were to continue to apply in its current form.

Furthermore, if a Replacement Rate is determined by the Reset Rate of Interest Determination Agent, the Conditions provide that the Reset Rate of Interest Determination Agent may determine consequential changes to the Conditions to reflect industry-accepted practices in respect of the Replacement Rate. Following any such determinations, references to the 1-year Mid-Swap Rate in the Conditions will be deemed to be references to the Replacement Rate, including the consequential changes to the Conditions to be made in respect of the Replacement Rate, without the need for the approval of Noteholders.

In respect of any Replacement Rate determined by the Reset Rate of Interest Determination Agent, an adjustment factor may also be determined by the Reset Rate of Interest Determination Agent to be applied to such Replacement Rate. The aim of the adjustment factor is to make the Replacement Rate comparable to the Screen Page 1-year Mid-Swap Rate in a manner consistent with industry-accepted practice. However, there is no guarantee that such an adjustment factor will be determined or applied, or that the application of an adjustment factor will make the Replacement Rate comparable to the Screen Page 1-year Mid-Swap Rate. If no adjustment factor is determined, a Replacement Rate may nonetheless be used to determine the Reset Rate of Interest. Any of the foregoing could have an adverse effect on the value or liquidity of, and return on the Notes.

If, for any reason, the Issuer is unable to appoint a Reset Rate of Interest Determination Agent, or the Reset Rate of Interest Determination Agent is unable to determine a Replacement Rate, the fall-back provisions described above shall apply, including the effective application of a fixed rate of interest

Any of the above matters or any other significant change to the setting or existence of the 1-year Mid-Swap Rate could have a material adverse effect on the value or liquidity of, and the amount payable under, the Notes.

Because the Global Note is held by or on behalf of Euroclear or Clearstream, Noteholders will have to rely on their procedures for transfer, payment and communication with the Issuer.

The Notes will be represented by the Global Note and will not be exchangeable for Notes in registered definitive form except in certain limited circumstances described under "Overview of Provisions Relating to the Notes While in Global Form." The Global Note will be deposited with or on behalf of Euroclear and Clearstream and registered in the name of a nominee for the common depositary for Euroclear and Clearstream. Euroclear and Clearstream will maintain records of the beneficial interests in the Global Note. While the Notes are

represented by the Global Note, Noteholders will be able to trade their entitlements only through Euroclear or Clearstream.

While the Notes are represented by the Global Note, the Issuer will discharge its payment obligations under the Notes by making payments to the holder of the Global Note. A holder of a beneficial interest in the Global Note must rely on the procedures of Euroclear and Clearstream to receive payments under the Notes. None of the Issuer, the Guarantor or any of the Managers has any responsibility or liability for the records relating to, or payments made in respect of, beneficial interests in the Global Note.

Holders of beneficial interests in the Global Note may have to rely on Euroclear and Clearstream and/or their respective custodian bank to exercise voting rights with respect to such Notes or to appoint appropriate proxies. Similarly, holders of beneficial interests in the Global Note will not have a direct right under the Global Note to take enforcement action against the Issuer or the Guarantor in the event of a default under the Notes Rather, holders will have to rely upon their limited rights under the Conditions and the Agency Agreement. See "Book-Entry; Clearing Systems; Settlement; Delivery and Form."

Use of Proceeds

The net proceeds from the issuance of the Notes will be used for general corporate purposes, including refinancing existing instruments.

The Issuer will issue Notes and receive and use the proceeds of the Notes exclusively outside Switzerland, unless, and to the extent, use of such proceeds in Switzerland is permitted under Swiss tax laws and practice (including pursuant to a ruling received from the Swiss federal tax authority dated February 25, 2019, and confirmed by such tax authority on February 28, 2019, concerning the application of the administrative practice note issued by the tax authority on February 5, 2019, and subject to compliance with the terms and conditions of such ruling (including the restrictions on the use of proceedings and reporting requirements stipulated therein) without payments of interest in respect of the Notes becoming subject to withholding or deduction for Swiss withholding tax.

Capitalization of the Guarantor Group

The following table sets forth the consolidated capitalization of the Guarantor Group on an actual basis as of December 31, 2018 and as adjusted to reflect this Offering as if it had occurred on December 31, 2018. You should read this table together with the Guarantor Group Financial Statements incorporated by reference in this Offering Memorandum, and the information under "Financial and Other Information Included or Incorporated by Reference in this Offering Memorandum" and "Use of Proceeds."

None of the Guarantor Group's long-term financial debt is secured. None of the Guarantor Group's long-term debt is guaranteed by third parties; however, except in the case of debt assumed with the acquisition of GE Insurance Solutions Corporation ("**GEIS**") in 2006, all of the long-term debt issued by subsidiaries of the Guarantor has been guaranteed either directly, or indirectly through guarantees that have been issued in favor of various of its financing or other subsidiaries, by the Guarantor. No outstanding debt of the Guarantor is convertible debt, exchangeable debt or debt with attached warrants.

	As of December 31, 2018	
	Actual[(a)]	**As adjusted**[(b)]
	($ in millions)	
	(audited)	*(unaudited)*
Long-term financial debt	**3,991**[(c)]	**4,851**
Shareholder's equity:		
Contingent capital instruments	-	-
Common Shares, CHF 0.10 par value (344,052,565 shares authorized and issued)	32	32
Additional paid-in capital	8,701	8,701
Treasury shares, net of tax	(19)	(19)
Accumulated other comprehensive income:		
Net unrealized investment gains, net of tax	692	692
Other-than-temporary impairment, net of tax	(3)	(3)
Foreign currency transaction, net of tax	(5,122)	(5,122)
Adjustment for pension and post-retirement benefits, net of tax	(768)	(768)
Credit risk of financial liabilities at fair value option, net of tax	5	5
Total accumulated other comprehensive income	(5,196)	(5,196)
Retained earnings	11,246	11,246
Shareholder's equity	14,764	14,764
Non-controlling interests	1,949	1,949
Total equity	**16,713**	**16,713**
Total capitalization	**20,704**	**21,564**

(a) Reflects the audited actual capitalization as of December 31, 2018.

(b) Adjusted to reflect the Offering.

(c) Represents $1,979 million of senior financial debt, $1,824 million of subordinated financial debt and $188 million of contingent capital instruments classified as financial debt (represented by instruments that in 2018 were reclassified from subordinated financial debt and convertible debt to their current classification) but does not include $388 million of senior long-term operational debt or $2,112 million of subordinated long-term operational debt. Debt used for operational leverage and financial intermediation is treated as operational debt and is currently excluded by the rating agencies from financial leverage calculations. Under guidelines issued by Moody's, operational debt may not exceed 10% of total capital (shareholder's equity plus total debt), with any excess treated as financial debt. Also does not include $4,955 million of short-term senior and subordinated financial debt and short-term contingent capital instruments classified as financial debt.

Selected Consolidated Financial Data of the Guarantor Group and Reinsurance Business Unit

Guarantor Group

You should read the following selected consolidated financial data together with the Guarantor Group Financial Statements that are incorporated by reference in this Offering Memorandum.

The selected consolidated financial data presented below has been extracted from the Guarantor Group Financial Statements, which have been audited by the Guarantor Group's independent auditor and have been prepared in accordance with U.S. GAAP.

	Year ended December 31,		
	2016	**2017**	**2018**
		($ in millions) *(audited)*	
Income Statement Data:			
Revenues			
Premiums earned			
Property & Casualty Reinsurance	17,008	16,667	16,095
Life & Health Reinsurance	11486	11,851	12,683
Other[(a)]	499	7	-
Total premiums earned	**28,993**	**28,525**	**28,778**
Fee income from policyholders	129	130	154
Net investment income – non-participating business	2,728	2,226	2,601
Net realized investment gains – non-participating business	1,592	981	367
Net investment result – unit-linked business	15	81	(33)
Other revenues	41	50	75
Total revenues	**33,498**	**31,993**	**31,942**
Expenses			
Claims and claim adjustment expenses	(10,299)	(13,172)	(11,614)
Life and health benefits	(9,560)	(9,209)	(10,287)
Return credited to policyholders	(358)	(121)	(7)
Acquisition costs	(6,382)	(6,291)	(6,029)
Operating expenses	(2,473)	(2,400)	(2,180)
Total expenses before interest expenses	**(29,072)**	**(31,193)**	**(30,117)**
EBIT[(b)]	**4,426**	**800**	**1,825**
Interest expenses	(581)	(567)	(601)
Income before income tax expense	**3,845**	**233**	1,224
Income tax expense	(648)	(119)	(176)
Net income before attribution of non-controlling interests	**3,197**	**114**	**1,048**
Income/(loss) attributable to non-controlling interests	(18)	(48)	(37)
Net income after attribution of non-controlling interests	**3,179**	**66**	**1,011**
Interest on contingent capital instruments	(68)	(67)	(41)
Net income/(loss) attributable to common shareholder	**3,111**	**(1)**	**970**

	As of December 31,	
	2017	**2018**
	($ in millions) *(audited)*	
Balance Sheet Data (at period end):		
Total investments	89,716	85,657
Total assets	150,118	144,089
Total liabilities	129,924	127,376
Unpaid claims and claim adjustment expenses	58,221	58,652
Liabilities for life and health policy benefits	19,361	18,969
Policyholder account balances	5,764	5,574
Total shareholder's equity	18,262	14,764
Total equity	20,194	16,713

Other Data (unaudited)

	Year ended December 31,		
	2016	2017	2018
Property & Casualty Reinsurance operating data (traditional business)			
Claims ratio (%)	60.5	79.0	72.2
Expense ratio (%)	33.0	32.5	31.8
Net operating margin (%)(c)	15.4	(1.3)	4.3
EBIT ($ in millions)(b)	2,890	(239)	755
Property & Casualty Reinsurance combined ratio (%)	93.5	111.5	104.0
Life & Health Reinsurance operating data			
Net operating margin (%)(c)	10.4	13.1	9.4
EBIT ($ in millions)(b)	1,350	1,815	1,367
Life & Health Reinsurance management expense ratio (%)(d)	6.0	5.7	5.4

(a) Items not allocated to the Guarantor Group's business segments are included in "Other," which encompasses non-core activities, including mainly certain costs not allocated to the Reinsurance business segments, certain Treasury activities as well as the remaining non-core activities that have been in run-off since November 2007.

(b) EBIT represents income/loss before interest and income tax expense.

(c) Net operating margin is calculated as income/loss before interest and income tax expense divided by total operating revenues. Total operating revenues are total revenues excluding unit-linked and with-profit revenues.

(d) Represents annual Life & Health business operating expenses divided by Life & Health business operating revenues (excluding unit-linked and with-profit business, as well as net realized investment gains/losses from non-participating business).

Reinsurance Business Unit

The following table sets out figures as of and for the year ended December 31, 2018 for the Reinsurance Business Unit:

	As of and for the year ended December 31,
	Reinsurance Business Unit(1)
	2018
	($ in millions) *(audited)*
Premiums earned	28,778
Fee income from policyholders	152
Total expenses before interest expenses	(29,828)
Net income/(loss) attributable to common shareholder	1,131
Shareholder's equity	15,757
EBIT(2)	2,122
Total assets	141,736
Total investments	88,215(3)

(1) Differences between the Guarantor Group and the Reinsurance Business Unit are attributable to the fact that for the Reinsurance Business Unit, the Swiss Re Group aggregates the Property & Casualty Reinsurance and the Life & Health Reinsurance segments of the Swiss Re Group without giving effect to items included under "Other" in the Swiss Re Group segment presentation (which encompasses non-core activities) and under "Consolidation" (which encompasses internal and external retrocession and other intra-group arrangements).

(2) EBIT represents income/loss before interest and income tax expense.

(3) Does not include cash and cash equivalents; with cash and cash equivalents the total would be $91,571million. The following table sets forth the breakdown of the investment portfolio on a Reinsurance Business Unit basis (including cash and cash equivalents):

	As of December 31, 2018	
	Property &	Life &

	Casualty Reinsurance	Health Reinsurance
	($ in billions)	
	(unaudited)	
Cash and cash equivalents	1.7	1.7
Short-term investments	2.5	1.2
Government bonds	25.8	13.1
Credit bonds	10.2	16.1
Equities[1]	3.2	0.7
Mortgages and other loans	7.5	1.8
Other investments (including policy loans)	4.4	1.3
Investments for unit-linked business	--	0.4
Total	**55.3**	**36.3**

(1) Includes equity securities, private equity and Principal Investments and Acquisitions.

Certain Information about Swiss Re Finance (Luxembourg) S.A.

SRFL was incorporated on December 27, 2002 for an unlimited duration as a *société anonyme* with limited liability under the laws of the Grand Duchy of Luxembourg. SRFL was registered with the Luxembourg trade and companies register (Registre de commerce et des sociétés, Luxembourg) on January 20, 2003 (registration number B90713). Its Articles of Incorporation were amended on July 31, 2003, October 5, 2006, April 20, 2007, July 15, 2009 and April 4, 2012. Its Articles of Incorporation and the amendments thereof were published in the Mémorial C, Recueil des Sociétés et Associations on February 18, 2003, September 24, 2003, November 25, 2006, June 15, 2007, August 14, 2009 and May 22, 2012.

SRFL's registered office is located at 2A, rue Albert Borschette, L-1246 Luxembourg and the telephone number is +352 261 216 30.

As of December 31, 2018, SRFL's subscribed share capital amounted to €181,200 divided into 1,812 registered shares with a par value of €100 each. All registered shares are owned by Swiss Re Europe Holdings S.A. On December 31, 2018, SRFL had a fully paid-up share capital of €181,200 and a share premium of €1,818,800. SRFL does not hold any of its own equity securities.

As of December 31, 2018, SRFL had no outstanding convertible debt securities, exchangeable debt securities or debt securities with warrants attached.

SRFL has no subsidiaries.

The purpose (corporate objects) of SRFL is to take participations, in any form whatsoever, in any other Luxembourg or foreign companies and enterprises; to manage and to control any such participations which are subsidiaries of SRFL; to coordinate all reporting by such participations; to acquire any securities and rights through participation, contribution, underwriting firm purchase or option, negotiation or in any other way and namely to acquire patents or licences, to manage and develop them; and to borrow money from third parties and to issue debentures, to grant to enterprises in which SRFL has an interest and to which it is affiliated within a group, any assistance, loans, advances or guarantees, finally to perform any operation which is directly or indirectly related to its purpose. SRFL can perform all commercial, technical and financial operations, connected directly or indirectly in all areas as described above, which it may deem useful to facilitate the accomplishment of its purpose.

The main activity of SRFL is to effect borrowings from third-parties or affiliated undertakings and to assist affiliated undertakings with financing activities through the issuance of debentures and the grant of loans and/or advances to such companies.

SRFL is not dependent on any patents or licenses which are material to the Notes.

SRFL has a board of directors, currently consisting of four directors. The directors at present are:

Name	Position
Lize-Mari Barnes............................	Director
Réjean Besner................................	Director
Ivo Hux..	Director
Simon Thiange	Director

The board of directors is generally responsible for managing the business and affairs of SRFL. The directors are elected by the general meeting of shareholders of SRFL. The business address of the members of the board of directors of SRFL is 2A, rue Albert Borschette, L-1246 Luxembourg.

PricewaterhouseCoopers, Société coopérative is the independent auditor (*réviseur d'entreprises agréé*) of SRFL and has audited the Issuer Financial Statements in such capacity, as stated in its reports appearing therein. The registered address of PricewaterhouseCoopers, Société coopérative is 2, rue Gerhard Mercator, L–2182 Luxembourg. Pricewaterhouse Coopers, Société coopérative is a member of the Luxembourg *Institut des Réviseurs d'Entreprises.*

SUMMARY FINANCIAL INFORMATION OF SWISS RE FINANCE (LUXEMBOURG) S.A.

The financial data set forth below have been extracted, without material adjustment, from the 2018 Issuer Financial Statements prepared in accordance with Luxembourg legal and regulatory requirements relating to the preparation of financial statements.

PROFIT AND LOSS ACCOUNT

	Year ended December 31,	
	2017	**2018**
	(€) *(audited)*	
Income		
Other interest receivable and similar income	—	881,028
Income from other investments and loans forming part of the fixed assets - derived from affiliated undertakings	49,187,595	—
Total Income	**49,187,595**	**881,028**
Charges		
Other operating expenses	24,345	42,761
Interest payables and similar expenses concerning affiliated undertakings	49,046,008	—
Other taxes	16,060	22,035
Profit for the financial year	101,182	816,232
Total Charges	**49,187,595**	**881,028**

BALANCE SHEET

	As of December 31,	
	2017	**2018**
	(€) *(audited)*	
Assets		
Current assets		
Amounts owed by affiliated undertakings becoming due and payable within one year	—	2,041,640
Cash at bank in hand	3,063,599	960,018
Total Assets	**3,063,599**	**3,001,658**
Liabilities		
Subscribed capital	181,200	181,200
Share premium and similar premiums	1,818,800	1,818,800
Reserves – Legal reserve	18,120	18,120
Profit or loss for the financial year	101,182	816,232
Creditors		
Amounts owed to affiliated undertakings becoming due and payable within one year	—	101,182
Tax authorities	41,716	34,776
Other creditors becoming due and payable within one year	—	7,367
Deferred income	902,581	23,981
Total Capital, Reserves and Liabilities	**3,063,599**	**3,001,658**

Swiss Re Group Risk and Capital Management

The following is an overview of the Swiss Re Group's capital management and risk management frameworks. Swiss Re Group Risk Management (as defined below) is a corporate function that support the Business Units (including the Reinsurance Business Unit) and is managed, defined and monitored at both the Swiss Re Group level and the Business Unit level. As a result, certain parts of this overview refer to business outside of the Reinsurance Business Unit. In this section, references to "we," "us," "our,", "Swiss Re" and the "Group" unless indicated otherwise, are to the Swiss Re Group.

OVERVIEW

The Swiss Re Group's sustainable capital generation allows it to continue returning excess capital to shareholders. Despite the fourth-costliest year for the insurance industry, the Swiss Re Group's SST ratio remains comfortably above the 220% target. This is supported by its diversified business model and disciplined risk-taking.

Financial strength

Swiss Re maintained a market-leading capital position during 2018 despite natural catastrophes and large man-made losses. The Swiss Re Group's SST ratio of 251% remains comfortably above Swiss Re's target capitalization of 220%. A.M. Best, Moody's and S&P rated Swiss Re's financial strength 'superior', 'excellent' and 'very strong', respectively. This capital strength enables Swiss Re to support its clients in difficult times while continuously returning capital to shareholders.

Swiss Re's overarching target is to maintain a very strong capital position that operates efficiently within constraints imposed by regulators and requirements from rating agencies while giving us maximum financial flexibility. Swiss Re's capital allocation decisions are steered to make capital and liquidity fungible to the Swiss Re Group wherever possible, while complying with local regulations and client needs. Cash dividends paid by Swiss Re's Business Units to SRL have amounted to $17.2 billion since 2013.

As part of the ongoing maintenance of the Swiss Re Group's target capital structure, Swiss Re further enhanced its financial flexibility by issuing a $500 million non-dilutive senior exchangeable bond with anytime issuer stock settlement.

Based on the Swiss Re Group's capital strength, the Board of Directors of SRL (the "**SRL Board of Directors**") proposes for approval at Swiss Re's 2019 annual general meeting a regular dividend of CHF 5.60 per share for 2018. In addition, the SRL Board of Directors proposes for approval at the annual general meeting a further public share buy-back program. The first tranche of up to CHF 1.0 billion purchase value would commence at the discretion of the SRL Board of Directors shortly after approval at the annual general meeting, subject to regulatory approvals. The second tranche of up to CHF 1.0 billion purchase value is conditional on the development in 2019 of the Swiss Re Group's excess capital position.

Liquidity

The Swiss Re Group's core insurance and reinsurance operations generate liquidity primarily through premium income. Its exposure to liquidity risk stems mainly from two sources: the need to cover potential extreme loss events and regulatory constraints that limit the flow of funds within the Swiss Re Group.

The amount of liquidity held is largely determined by internal liquidity stress tests, which estimate the potential funding requirements stemming from extreme loss events. Based on these internal liquidity stress tests, we estimate that the SRZ liquidity pool, the primary liquidity pool of the Swiss Re Group, currently holds significant surplus liquidity.

Swiss Re also provides FINMA with a yearly report on its liquidity position, in accordance with FINMA Circular 13/5, "Liquidity — Insurers."

Swiss Re Group Risk Management

The Swiss Re Group risk management function ("**Swiss Re Group Risk Management**") is key to the controlled risk-taking that underpins its financial strength. Swiss Re Group Risk Management is mandated to ensure that the Swiss Re Group and its legal entities have the necessary expertise, frameworks and infrastructure to support good risk-taking. In addition, it monitors and ensures adherence to applicable frameworks and also performs reserving and reporting activities.

Swiss Re Group Risk Management is embedded throughout its business. Swiss Re has dedicated Chief Risk Officers and risk teams for all major legal entities and regions. These are closely aligned to Swiss Re's business structure, in order to ensure effective risk oversight, but remain part of the Swiss Re Group Risk Management function under the Swiss Re Group Chief Risk Officer (the "**Swiss Re Group CRO**"), thus ensuring their independence as well as a consistent Swiss Re Group-wide approach to overseeing and controlling risks. They are supported in this by central risk teams that provide specialised risk expertise and oversight.

The Swiss Re Group's risk-taking is steered by our Risk Appetite Framework, which consists of two interlinked components: risk appetite and risk tolerance. The risk appetite statement facilitates discussions about where and how Swiss Re should deploy its capital, liquidity and other resources under a risk/return view, while the risk tolerance sets clear boundaries to risk-taking.

Swiss Re's proprietary integrated risk model provides a meaningful assessment of the risks to which the Swiss Re Group is exposed and represents an important tool for managing our business. It determines the capital requirements for internal purposes and forms the basis for regulatory reporting under the SST and under Solvency II for our legal entities in the EEA.

Swiss Re continuously reviews and updates its internal model and its parameters to reflect its experiences as well as changes in the risk environment and current best practice.

Swiss Re's risk profile

In SST 2019, Swiss Re's overall risk remains broadly stable at $19.7 billion (compared to $19.9 billion in SST 2018), as higher underwriting and credit risks are more than offset by a decrease in financial market risk.

Property and casualty risk increases due to growth in property business in 2018 and the January 1, 2019 renewals, which leads to higher natural catastrophe and terrorism exposure. These effects are to some extent offset by lower costing and reserving risk. Life and health risk increases due to business growth in Asian markets, increasing critical illness and lethal pandemic risk. Mortality trend risk also increases, reflecting an update on external retrocession cash flow. The increase is further driven by the introduction of an improved health model.

Financial market risk decreases, mainly driven by significantly lower credit spread and to a lesser extent by lower equity risk. The decrease in credit spread and equity risk is driven by adverse market developments during 2018. Credit risk increases since SST 2018 is driven by business growth in credit and surety business.

FINANCIAL STRENGTH AND CAPITAL MANAGEMENT

Swiss Re remained strongly capitalised throughout 2018 despite large industry losses, allowing us to respond to deploy capital for potential market developments while continuing to repatriate excess capital to its shareholders.

Robust capitalization despite large events

Swiss Re's policy of ensuring superior capitalization at all times has meant that even in the face of large insurance losses in two consecutive years, the Swiss Re Group maintains a very strong capital position and high financial flexibility. Swiss Re's financial strength enables it to stay committed to creating long-term shareholder value by growing the regular dividend.

Swiss Re's capital management priorities aim to ensure the Swiss Re Group's ability to continue operations following an extremely adverse year of losses from insurance and/or financial market events. The SRL Board of Directors has also defined an SST capitalization target of 220% for the Swiss Re Group.

Swiss Re's capital management priorities are to

- Ensure superior capitalization at all times and maximize financial flexibility. The Group's 2018 SST ratio was 269% and its 2019 SST ratio is 251%.
- Grow the regular dividend with long-term earnings, and at least maintain it – Swiss Re's $7.9 billion of ordinary dividends (in respect of the fiscal years 2014 - 2018) represents a pay-out ratio of 46%.
- Deploy capital for business growth where it meets strategy and profitability requirements – for business reinvestments and acquisitions.
- Repatriate further excess capital to shareholders – Swiss Re's $6.2 billion of special dividends and share buybacks (in respect of the fiscal years 2014 - 2018) represent an extraordinary pay-out ratio of 36%.

The following subsections describe Swiss Re's capitalization according to the SST and the financial strength ratings.

Swiss Solvency Test (SST)

Based on current SST rules introduced in 2017, the SST ratio is calculated as RBC minus the MVM, divided by TC minus the MVM.

The Swiss Re Group SST 2019 report will be filed with FINMA in April 2019. Accordingly, the information presented below is based on currently available figures and may differ from the information included in the final Swiss Re Group SST 2019 report.

In SST 2019, the solvency of Swiss Re Group remains at a very strong level of 251% and comfortably above the target of 220%. In a challenging year with large losses Swiss Re was able to generate a positive underwriting contribution. This is also reflected in an increase of insurance risk in the overall risk profile. Capital repatriation, the redemption of a subordinated instrument and depressed financial markets resulting in negative contribution from investments ultimately led to a decrease in the overall SST ratio.

SWISS RE GROUP SST RATIO

USD millions	SST 2018	**SST 2019**	Change
SST risk-bearing capital – market value margin	46 345	**40 637**	–5 708
SST target capital – market value margin	17 217	**16 188**	–1 029
SST ratio	269%	**251%**	–18pp

SST risk-bearing capital (RBC)

The RBC is derived from the SST net asset value ("**SST NAV**"), which represents the difference between the market consistent value of assets and liabilities, according to the valuation methodology prescribed under SST. For this purpose, the SST NAV is adjusted for the items in the table below.

Changes to the SST NAV mainly include economic capital generation or depletion due to underwriting and investment activities, foreign exchange movements, and capital management actions (such as paying dividends and share repurchases).

Compared to the previous SST reporting period, the SST NAV decreases by $3.6 billion. The decrease is mainly driven by dividends paid and share repurchases, negative foreign exchange movements in 2018 and negative investment contributions. These effects are partly offset by positive contributions from underwriting activities.

SST RISK-BEARING CAPITAL

USD millions	SST 2018	SST 2019	Change
SST net asset value	50 865	**47 268**	–3 597
Deductions	–3 161	–3 058	103
SST core capital	47 704	**44 210**	–3 494
Supplementary capital	4 584	3 450	–1 134
SST risk-bearing capital	52 288	**47 660**	–4 628
Market value margin	5 943	7 023	1 080
SST risk-bearing capital – market value margin	46 345	**40 637**	–5 708

The overall contribution from underwriting activities is positive, mainly reflecting underwriting contributions from Property & Casualty Reinsurance, Life & Health Reinsurance and Life Capital, partly offset by negative underwriting contribution from Corporate Solutions, due to large natural catastrophe and man-made losses:

- The Property & Casualty Reinsurance contribution to the SST NAV is mainly driven by a net favorable development in expected claim pay-out patterns and ultimate claims estimates. The positive impacts are partly offset by adverse large loss experience from natural catastrophe and man-made losses.
- The Life & Health Reinsurance contribution is driven by large transactions in Asia and strong core business in the United States, partly offset by adverse experience, as well as valuation and assumption updates (mainly in the United States and EMEA).
- The Corporate Solutions underwriting contribution is negatively impacted by the large natural catastrophes in the United States as well as the high severity and frequency of large man-made losses.
- The Life Capital underwriting contribution is positive, resulting from favorable underwriting results.

The contribution from investment activities is negative, mainly driven by the impact of spread widening and negative equity performance as well as losses in Principal Investments and Acquisitions. The negative impact from foreign exchange movements on the SST NAV mainly reflects the weakening of major currencies against the US dollar. Dividend payments and share repurchases lead to a decline in SST NAV of $2.9 billion.

Deductions mainly reflect projected dividends and share repurchases (to be paid in 2019 and subject to approval at Swiss Re's 2019 annual general meeting) as well as deferred taxes on real estate. These items decreased by $103 million compared to SST 2018.

Supplementary capital is recognised as risk-bearing under SST. The change in SST supplementary capital of $1.1 billion reflects the redemption of a subordinated instrument as well as changes in the market value of the capital instruments.

A description of the change in market value margin, which represents the capital costs for the run-off period, is provided together with the TC discussion below.

SST target capital (TC)

Swiss Re uses an internal risk model to determine the economic capital required to support its underwriting risks, as well as to allocate risk-taking capacity to the different lines of business. The model also provides the basis for capital cost allocation in Swiss Re's economic value management ("**EVM**") framework, which is used for pricing, profitability evaluation and compensation decisions. In addition to these internal purposes, the model is used to determine regulatory capital requirements under economic solvency frameworks such as SST and Solvency II.

In 2017, FINMA approved Swiss Re's internal model and its components for SST reporting purposes under their revised model review process. In 2018, FINMA conducted a major review of Swiss Re's credit model, which was approved for use in SST 2019, though it will require minor adjustments for later reporting purposes.

Since SST 2018, two major model changes have been implemented and were approved by FINMA in October 2018:

- Financial market risks – the change in calibration approach had no impact on required capital when it was introduced. The prospective impact is contingent on financial markets developments;
- Critical illness, income protection and hospital cash risk – the introduction of the new health model resulted in an increase in required capital.

The risk exposure basis for SST is a projection for the period from January 1, 2019 to December 31, 2019 and is based on the economic balance sheet as of December 31, 2018 and adjustments to reflect January 1, 2019 business shifts.

In order to derive TC, total risk is adjusted for the line item "Other" impacts as shown in the table below.

TC remains broadly stable at $23.2 billion as minor changes in total risk and other impacts offset each other.

Other impacts mainly reflect run-off capital costs (MVM), which are deducted again from target capital to calculate the ratio, as well as the impact from business development over the forecasting period and requirements from FINMA that are not consistent with Swiss Re's own risk view.

The increase in MVM is mainly driven by actual and projected growth in Asian critical illness business and model improvements. These effects are partly offset by the depreciation of major currencies against the US dollar and slightly higher interest rates.

SST TARGET CAPITAL

USD millions	SST 2018	**SST 2019**	Change
Total risk	19 859	**19 713**	–146
Other impacts	3 301	3 498	197
SST target capital	23 160	**23 211**	51
Market value margin	5 943	7 023	1 080
SST target capital – market value margin	17 217	**16 188**	–1 029

External dividends to shareholders

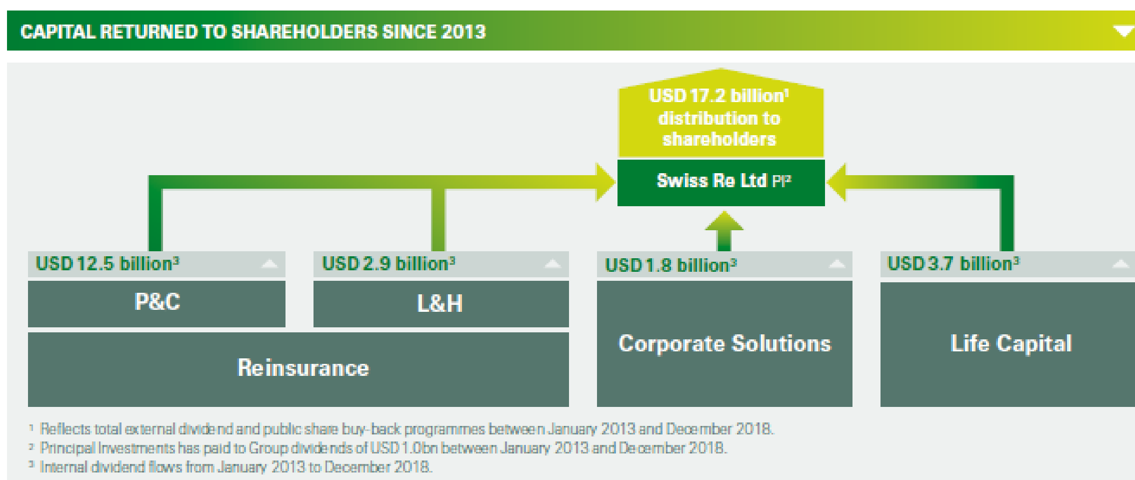
Based on the Swiss Re Group's solid economic earnings, the SRL Board of Directors proposes for approval at Swiss Re's 2019 annual general meeting a regular dividend of CHF 5.60 per share for 2018, up from CHF 5.00 in 2017.

Consistent with the established capital management priorities, the SRL Board of Directors proposes for approval at the annual general meeting a further public share buy-back program. The first tranche of up to CHF 1.0 billion purchase value would commence at the discretion of the SRL Board of Directors shortly after approval at the annual general meeting, subject to regulatory approvals. The second tranche of up to CHF 1.0 billion purchase value is conditional on the development in 2019 of the Swiss Re Group's excess capital position.

Business Unit structure and capital allocation

Our peer-leading capital repatriation is supported by strong dividend payments from our Business Units. The cash dividends paid to SRL since 2013 totalled $22.0 billion, while the total amount of capital returned to shareholders in the same time period totalled $17.2 billion.

The Swiss Re Group also reinvested into the business by re-deploying capital into the Business Units since 2013. The majority of this capital was allocated to Life & Health Reinsurance, Corporate Solutions and Life Capital's open book businesses, reflecting our strategy to steer capital to the growing areas of the business in a competitive environment.



Rating agencies

Rating agencies assign credit ratings to the obligations of Swiss Re and its rated subsidiaries. The agencies evaluate Swiss Re based on a set of criteria that include an assessment of our capital adequacy. Each rating agency uses a different methodology for this assessment.

A.M. Best, Moody's and S&P rate Swiss Re's financial strength based upon interactive relationships. The insurance financial strength ratings are shown in the table below.

On October 24, 2018, S&P affirmed the AA– financial strength rating of Swiss Re and its core subsidiaries. The outlook on the rating is "Stable." The rating reflects Swiss Re's extremely strong capital adequacy in excess of the 'AAA' benchmark and extremely strong competitive position built on a highly recognized brand name, highly diversified product offering and long-established direct client relationships.

On December 10, 2018, A.M. Best confirmed Swiss Re's financial strength rating of "A+ (Superior)" with stable outlook. The rating reflects A.M. Best's assessment of Swiss Re's "strongest" balance sheet strength, strong operating performance, very favorable business profile and very sophisticated enterprise risk management.

On December 19, 2017, Moody's affirmed Swiss Re's insurance financial strength rating and outlook at "Aa3" with stable outlook. The rating reflects Swiss Re's excellent market position, very strong business and geographic diversification and strong balance sheet in terms of capital and financial flexibility.

SWISS RE'S FINANCIAL STRENGTH RATINGS

As of 31 December 2018	Financial strength rating	Outlook	Last update
Moody's	Aa3	Stable	19 December 2017
Standard & Poor's	AA–	Stable	24 October 2018
A.M. Best	A+	Stable	10 December 2018

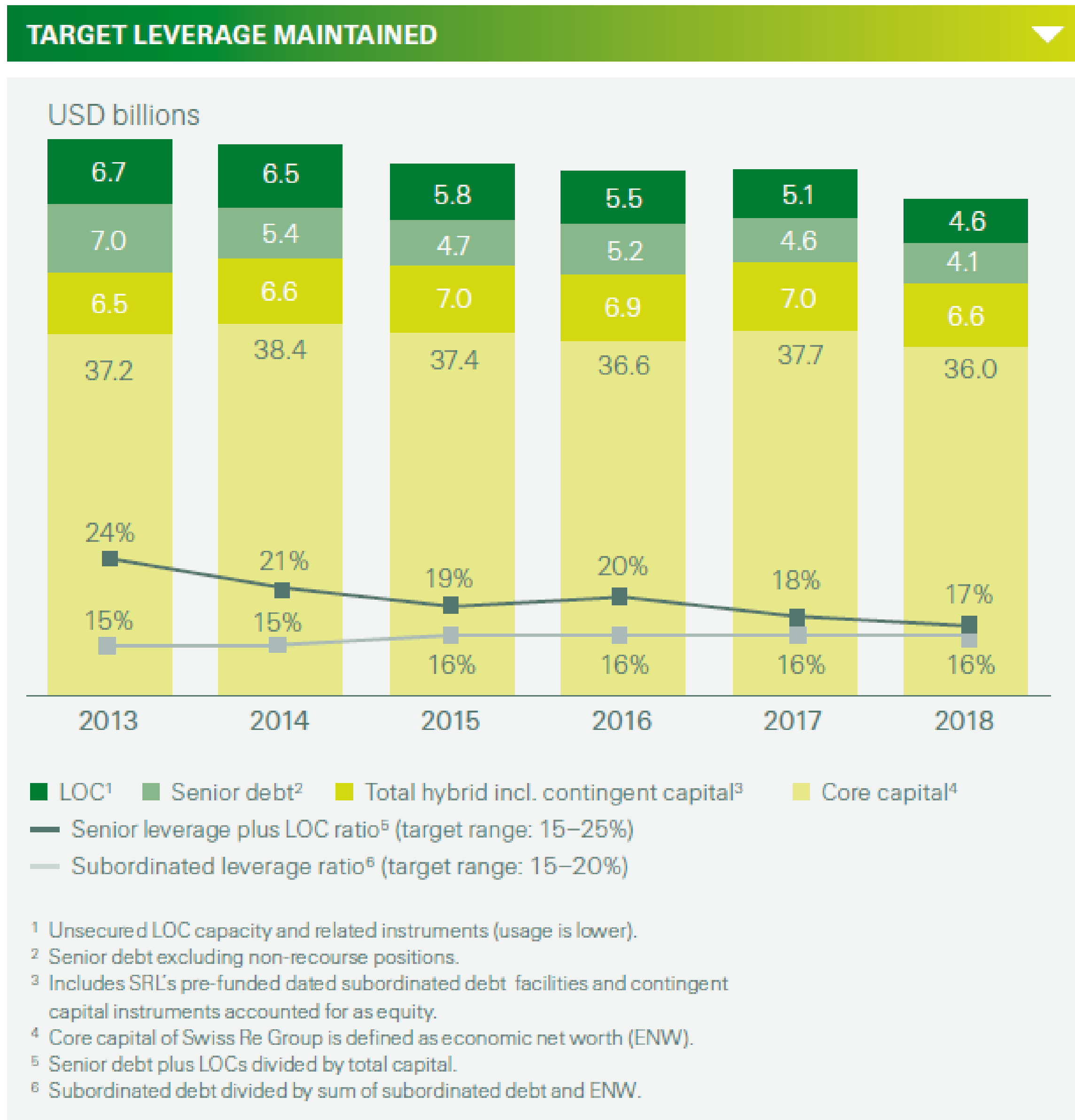
Maintenance of target capital structure

Having achieved the Swiss Re Group's target capital structure in 2016, the focus is now on maintaining it.

In June 2018, SRL issued a $500 million 6-year non-dilutive senior exchangeable bond with anytime issuer stock settlement at a coupon of 3.25%. This issuance in the equity-linked capital markets provides Swiss Re with valuable, cost efficient contingent capital, further enhancing the Swiss Re Group's financial flexibility. The bond replaced the CHF 320 million perpetual subordinated notes with anytime issuer stock settlement issued in 2012 by SRZ, which were redeemed in September 2017. SRZ further reduced subordinated leverage by $750

million by redeeming its second series of perpetual subordinated notes with anytime issuer stock settlement on their first call date in September 2018.

The Swiss Re Group's leverage is comfortably within target capital structure senior leverage target range (15–25%) and slightly below the subordinated leverage target range (15–20%), providing us with additional financial flexibility.



LIQUIDITY MANAGEMENT

As a re/insurance group, Swiss Re's core business generates liquidity primarily through premium income. Swiss Re's exposure to liquidity risk stems mainly from two sources: the need to cover potential extreme loss events and regulatory constraints that limit the flow of funds within the organization.

A range of liquidity policies and measures are in place to manage these risks. In particular, to ensure that:

- sufficient liquidity is held to meet funding requirements under current conditions as well as adverse circumstances;
- funding is charged and credited at an appropriate market rate through Swiss Re's internal transfer pricing;

- diversified sources are used to meet the Swiss Re Group's residual funding needs; and
- long-term liquidity needs are taken into account in the Swiss Re Group's planning process and in the management of financial market risk.

Liquidity risk management

Swiss Re's core liquidity policy is to retain access to sufficient liquidity in the form of unencumbered liquid assets, cash, and pre-funded facilities, to meet potential funding requirements arising from a range of possible stress events. To allow for regulatory restrictions on intra-group funding, liquidity is managed from a legal entity perspective. The amount of liquidity held is largely determined by internal liquidity stress tests, which estimate the potential funding requirements stemming from extreme loss events.

The funding requirements under stress include:

- cash and collateral outflows, as well as potential capital and funding support required by subsidiaries as a result of loss events;
- repayment or loss of all maturing unsecured debt and credit facilities;
- additional collateral requirements associated with a potential ratings downgrade;
- further contingent funding requirements related to asset downgrades; and
- other large committed payments, such as expenses, commissions and tax.

The stress tests also assume that funding from assets is subject to conservative haircuts, that intra-group funding is not available if it is subject to regulatory approval, that no new unsecured funding is available, and that funding from new (re)insurance business is reduced.

The primary liquidity stress test is based on a one-year time horizon, a loss event corresponding to 99% tail value at risk ("**tail VaR**") and a three-notch ratings downgrade. Swiss Re's liquidity stress tests are reviewed regularly and their main assumptions are approved by the Swiss Re Group Executive Committee (the "**Swiss Re Group EC**"). Swiss Re provides FINMA with a yearly report on our liquidity position, in accordance with FINMA Circular 13/5 "Liquidity – Insurers."

Liquidity position of SRZ liquidity pool

From a liquidity perspective, SRZ is the most important legal entity of the Swiss Re Group. The estimated total liquidity sources in SRZ available within one year, after haircuts and net of short-term loans from SRL and securities lending, amounted to $15.0 billion as of December 31, 2018, compared with $17.9 billion as of December 31, 2017. Based on the internal liquidity stress tests described above, we estimate that SRZ holds surplus liquidity after dividends to SRL.

In 2018, the amount of surplus liquidity reduced. This reduction was largely due to the management decision to reduce external debt, as well as an increase in contingent funding requirements stemming from extreme stress loss events.

RISK MANAGEMENT

Embedded throughout the business, Swiss Re Group Risk Management ensures an integrated approach to managing current and emerging threats. Swiss Re Group Risk Management plays a key role in business strategy and planning discussions, where our risk appetite framework facilitates risk/return discussions and sets boundaries to group-wide risk-taking.

Taking and managing risk is central to our business. All risk-related activities, regardless of the legal entity in which they are undertaken, are subject to the Swiss Re Group's risk management framework. Consequently, the framework is applied at the Swiss Re Group level and cascaded to all legal entity levels, whereby the three entities SRZ, SRCS and SRLC represent the top-level legal entities for the Reinsurance, Corporate Solutions and Life Capital Business Units.

The risk management framework sets out how we organize and apply our risk management practices to ensure that all activities are conducted in line with the principles and limits mandated by the Swiss Re Group Risk Policy. The framework comprises the following major elements:

- risk governance documentation, including our Swiss Re Group Risk Policy;
- key risk management principles;
- fundamental roles for delegated risk-taking;
- risk culture;
- organization of risk management, including responsibilities at board and executive level;
- risk control framework; and
- risk appetite framework, including limits.

Swiss Re applies a differentiated governance approach at legal entity level, depending on the materiality of individual entities. SRZ, SRCS and SRLC, as well as major legal entities within the Swiss Re Group that are designated as so-called "Level I entities," are subject to enhanced governance, which includes the following requirements:

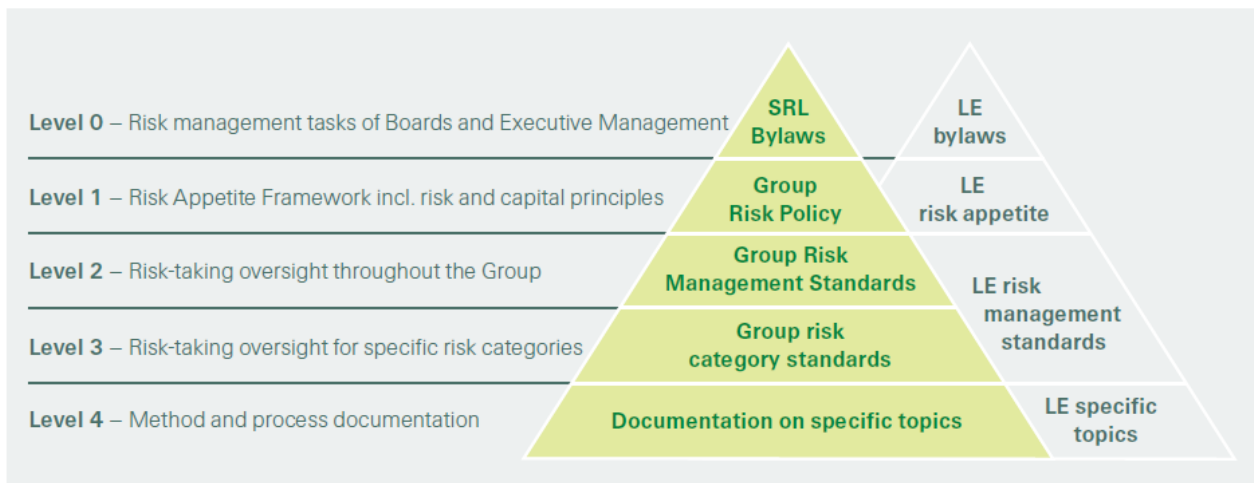
- develop and maintain corporate and risk governance documentation that governs the responsibilities of the legal entity board, committees and management;
- establish an audit committee as well as a finance and risk committee to support the legal entity board in performing its oversight responsibility for risk and capital steering; and
- designate a Chief Risk Officer and Chief Financial Officer.

Risk governance documentation

Swiss Re's risk management framework is set out in risk governance documentation at Swiss Re Group and legal entity level. Risk governance is the subset of corporate governance that describes the risk management framework and documents risk management practices. Swiss Re Group-level risk documents form the basis for all risk governance across Swiss Re. Additional risk governance for legal entities is prepared as an addendum to the Swiss Re Group or parent entity document.

Swiss Re Group risk governance documents are organized hierarchically across five levels, which are mirrored by equivalent documents at legal entity level (see chart, below):

- SRL bylaws and the charter of the Swiss Re Group finance and risk committee (the "**Swiss Re Group Finance and Risk Committee**") outline the ultimate authority for risk management, assigning responsibilities to the SRL Board of Directors and the Swiss Re Group EC;
- the Swiss Re Group Risk Policy is defined by the SRL Board of Directors and articulates our risk appetite framework (risk appetite and tolerance) as well as fundamental risk and capital structure principles;
- the Swiss Re Group Risk Management Standards outline how we organize and apply the Swiss Re Group's risk management practices;
- risk category standards describe how risk practices are implemented for a specific category; and
- the lowest level comprises risk management methodology and process documentation.



Key risk management principles

Our risk management is based on four fundamental principles. These apply consistently across all risk categories at Swiss Re Group and legal entity level:

- controlled risk-taking – financial strength and sustainable value creation are central to our value proposition. The Swiss Re Group thus operates within a clearly defined risk policy and risk control framework;
- clear accountability – Swiss Re's operations are based on the principle of delegated and clearly defined authority. Individuals are accountable for the risks they take on, and their incentives are aligned with our overall business objectives;
- independent risk controlling – dedicated units within Swiss Re Group Risk Management control all risk-taking activities. These are supported by Compliance and Swiss Re Group Internal Audit functions; and
- transparency – risk transparency, knowledge-sharing and responsiveness to change are integral to the risk control process. The central goal of risk transparency is to create a culture of mutual trust, and reduce the likelihood of surprises in the source and potential magnitude of losses.

Fundamental roles for delegated risk-taking

In order to ensure clear control, accountability and independent monitoring for all risks, our risk governance distinguishes between three fundamental roles in the risk-taking process:

- risk owner – establishes a strategy, delegates execution and control, and retains ultimate responsibility for the outcomes;
- risk taker – executes an objective within the authority delegated by the risk owner; risk takers are required to provide the respective risk controller with all information required to monitor and control their risks; and
- risk controller – is tasked by the risk owner with independent oversight of risk-taking activities to mitigate potential conflicts of interest between the risk owner and risk taker; risk controllers are responsible for escalating relevant concerns.

Risk-taking activities are typically subject to three lines of control. The first line comprises the day-to-day risk control activities performed by risk takers in the business as well as in Swiss Re Group Functions, including identification of risks and design of effective controls. Independent oversight performed by functions such as Swiss Re Group Risk Management and Compliance represents the second line of control. The third line consists of independent audits of processes and procedures carried out by Swiss Re Group Internal Audit or by external auditors. This approach is designed to achieve a strong, coherent and Swiss Re Group-wide risk culture built on the principles of ownership and accountability.

Risk culture

Swiss Re fosters and maintains a strong risk culture to promote risk awareness, rigor and discipline across all our activities. This risk culture stands for the risk- and control-related values, knowledge and behavior shared by all employees. Its principal components are summarized in a framework that builds on our Swiss Re Group Code of Conduct as well as on key risk management principles in our Swiss Re Group Risk Policy.

The risk culture framework serves to influence appropriate behavior in four key aspects, which are assessed annually for all employees in the performance and compensation process:

- leadership in providing clear vision and direction;
- consideration of risk-relevant information in decision making;
- risk governance and accountability of risk takers as well as transparent flow of risk information; and
- embedding of risk management skills and competencies.

Swiss Re's risk culture provides the foundation for the efficient and effective application of our group-wide risk management framework. Swiss Re Group Risk Management reinforces the risk culture by ensuring risk transparency and fostering open discussion and challenge in our risk-taking and risk management processes. Key risk takers across Swiss Re are a particular focus in promoting good risk- and control-related behaviors. The relevant positions are identified in a regular process, and those who hold them are subject to additional behavioral objectives and assessments.

Risk culture is directly linked to our performance management, which is based not only on business results but also on behaviors. Our compensation framework aims to foster compliance and support sensible risk-taking. We also have a range of incentive programs that reflect the long-term nature of our business by rewarding sustained performance rather than short-term results. This helps to align shareholder and employee interests.

Swiss Re's compensation principles and framework are captured within our global Swiss Re Group Compensation Policy. The Swiss Re Group Finance and Risk Committee conducts a regular risk assessment for all changes to this policy.

Organization of risk management

The SRL Board of Directors is ultimately responsible for our overall risk governance principles and policies. It defines basic risk management principles and the risk appetite framework, including our risk appetite and risk tolerance; in addition, it approves our risk strategy. The SRL Board of Directors mainly performs risk oversight and governance through three committees:

- the Swiss Re Group Finance and Risk Committee, which defines the Swiss Re Group Risk Policy, reviews risk capacity limits, monitors adherence to risk tolerance, and reviews top risk issues and exposures;
- the investment committee (the "**Swiss Re Group Investment Committee**"), which reviews the financial risk analysis methodology and valuation related to each asset class, and ensures that the relevant management processes and controlling mechanisms are in place; and
- the audit committee (the "**Swiss Re Group Audit Committee**"), which oversees internal controls and compliance procedures.

The Swiss Re Group EC is responsible for developing and implementing our group-wide risk management framework. It also sets and monitors risk capacity limits, oversees the EVM framework, determines product policy and underwriting standards, and manages regulatory interactions and legal obligations. The Swiss Re Group EC has delegated various risk management responsibilities to the Swiss Re Group CRO as well as to certain legal entity chief risk officers ("**CROs**"), in particular the CROs of the legal entities SRZ, SRCS and SRLC.

The Swiss Re Group CRO is appointed as the principal independent risk controller of Swiss Re. He is a member of the Swiss Re Group EC and reports directly to the Swiss Re Group CEO as well as to the Swiss Re Group Finance and Risk Committee. The Swiss Re Group CRO also advises the Swiss Re Group EC, the Chairman or

the respective board of director's committees, in particular the Swiss Re Group Finance and Risk Committee, on significant matters arising in his area of responsibility.

The Swiss Re Group CRO leads the independent Swiss Re Group Risk Management function, which is responsible for risk oversight and control across Swiss Re. It thus forms an integral part of our business model and risk management framework. The Swiss Re Group Risk Management function comprises dedicated risk teams for legal entities and regions, as well as central teams that provide specialized risk expertise and oversight.

While the Swiss Re Group Risk Management organization is closely aligned to our business structure, in order to ensure effective risk oversight, all embedded teams and CROs remain part of the Swiss Re Group Risk Management function under the Swiss Re Group CRO, thus ensuring their independence as well as a consistent Swiss Re Group-wide approach to overseeing and controlling risks.

Legal entity risk teams are led by dedicated CROs who report directly or indirectly to their top-level entity CRO, with a secondary reporting line to their respective legal entity CEO. These legal entity CROs are responsible for risk oversight in their respective entities, as well as for establishing the proper risk governance to ensure efficient risk identification, assessment and control. They are supported by functional, regional and subsidiary CROs who are responsible for overseeing risk management issues that arise at regional or subsidiary level.

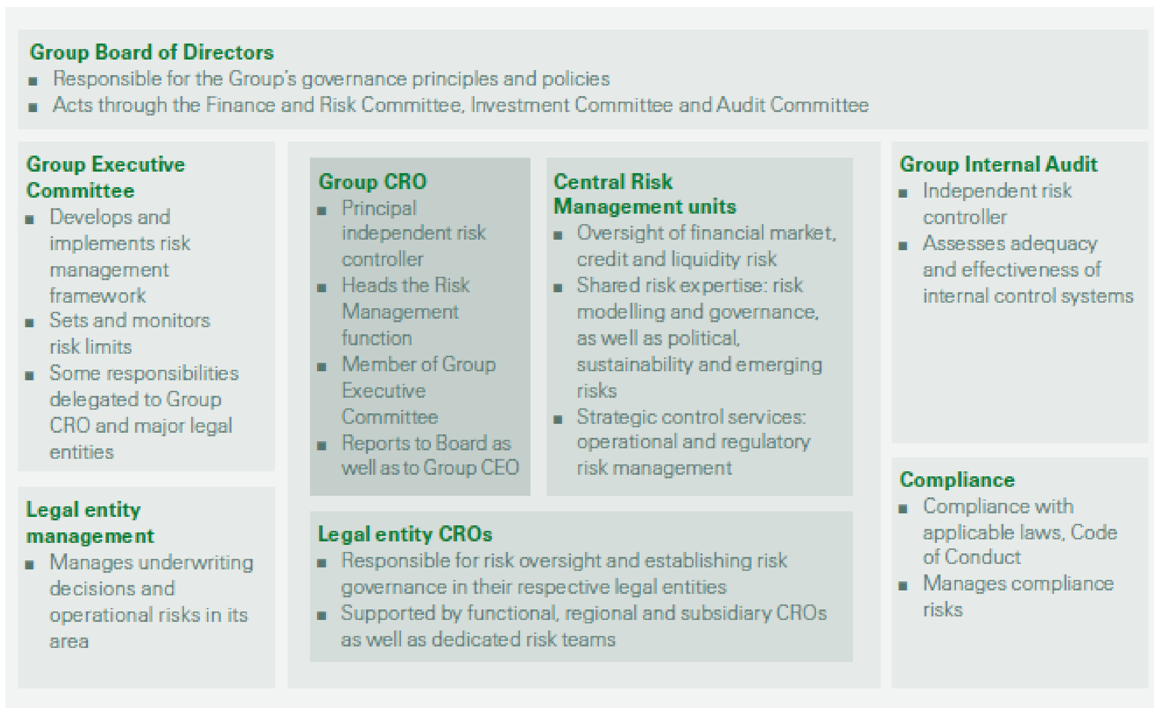
The central risk teams oversee group liquidity and capital adequacy and maintain our frameworks for controlling these risks throughout the Swiss Re Group. They also support CROs at group and legal entity level in discharging their oversight responsibilities. They do so by providing services, such as:

- financial risk management;
- specialized risk category expertise and accumulation control;
- risk modelling and analytics;
- regulatory relations management; and
- maintaining the central risk governance framework.

Swiss Re Group Risk Management is also in charge of actuarial reserving and monitoring of reserve holdings for SRCS and SRLC as well as their subsidiaries, while for SRZ and its subsidiaries the setting of the reserves is performed by valuation actuaries within the Property & Casualty and Life & Health Reinsurance business management units.

Risk management activities are complemented by the Swiss Re Group Internal Audit and Compliance units:

- Swiss Re Group Internal Audit performs independent, objective assessments of the adequacy and effectiveness of internal control systems. It evaluates the execution of processes within Swiss Re, including those within Swiss Re Group Risk Management; and
- the Compliance function oversees Swiss Re's compliance with applicable laws, regulations, rules and the Swiss Re Group Code of Conduct. It also assists the SRL Board of Directors, the Swiss Re Group EC and other management bodies in identifying, mitigating and managing compliance risks.



Risk control framework

Swiss Re operates within a clearly defined risk control framework. This is set out in the Swiss Re Group Risk Management Standards, and comprises a body of standards that establish an internal control system for taking and managing risk. These standards set responsibilities for risk takers and risk controllers. The risk control framework defines five key tasks, which are the core components of our risk management cycle:

- risk tolerance and appetite assessment of plan – ensures that the risk implications of plans are understood, and determines whether business and investment plans adhere to risk appetite framework (risk appetite and tolerance);
- risk identification – ensures that all risks to which we are exposed are transparent in order to make them controllable and manageable;
- risk measurement – enables us to understand the magnitude of our risks and to set quantitative controls that limit our risk-taking;
- risk exposure control – allows us to control its risk-taking decisions and total risk accumulations, including the passive risk we are exposed to through our operations; and
- risk reporting – creates internal risk transparency and enables us to meet external disclosure requirements.

In addition, Swiss Re Group Risk Management performs several risk control activities:

- model and tool assurance, which ensures that models or tools used for costing, valuation and risk capital determination are based on sound scientific concepts, have been implemented and calibrated correctly, and produce accurate results;
- valuation assurance, which assesses the quality of valuations for financial instrument prices and reserves; and
- insurance risk reviews, which assess the quality of decision-making in the taking of underwriting risks by performing independent assessments of costing, pricing, wording and claims handling.

Swiss Re has implemented a principles-based integrated internal control system to mitigate identified operational risks including financial reporting and compliance risks, as well as risks that could impair the

effectiveness and efficiency of operations. This control system represents a subset of our risk control framework and is based on international standards established by COSO (the Committee of Sponsoring Organizations of the Treadway Commission). It is applied on multiple organizational levels, including group, functions, regions and legal entities.

Risk transfer

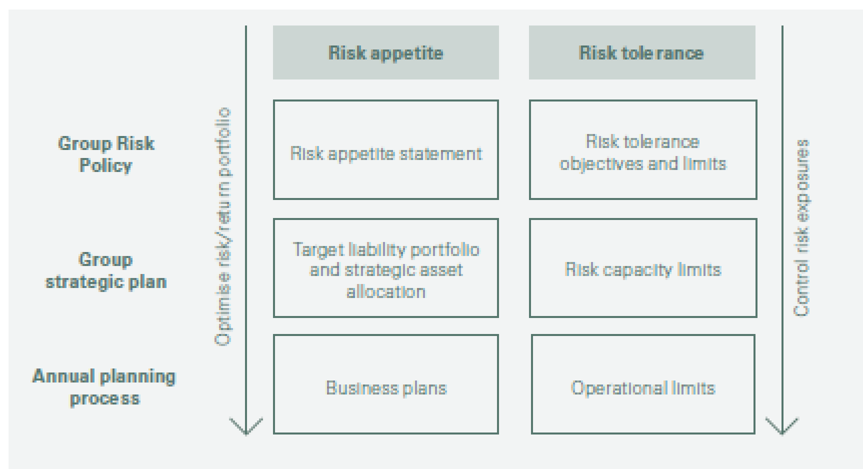
To efficiently manage capital across the Swiss Re Group and ensure that risk-taking in individual legal entities is well diversified, we employ internal retrocession and funding agreements. These serve to improve the fungibility of capital and consequently group-wide diversification. In addition, the Swiss Re Group aims to maximize the amount of funds available centrally by optimizing the excess capital held within our subsidiaries and branches.

Swiss Re also manages and mitigates insurance risk through external retrocession, insurance risk swaps or by transferring risk to capital markets through ILS, industry loss warranties or other derivatives. This provides protection against extreme catastrophic events, further diversifies risk, stabilizes economic results and releases underwriting capacity.

In addition, Swiss Re uses financial market derivative instruments as well as financial market securities to hedge financial market and credit risks arising from investments and insurance liabilities. Interest rate risk from insurance liabilities is managed through investments in fixed-income instruments whose pricing is sensitive to changes in government yields, such as government bonds.

Risk appetite framework

The risk appetite framework establishes the overall approach through which we practice controlled risk-taking throughout the Swiss Re Group. The framework is set out in the Swiss Re Group Risk Policy and consists of two interlinked components: risk appetite and risk tolerance.



In the context of business strategy and planning, the risk appetite statement facilitates discussions about where and how we should deploy our capital, liquidity and other resources under a risk/return view, while the risk tolerance sets clear boundaries to risk-taking.

During strategic planning and target-setting, Swiss Re Group Risk Management provides an opinion on the proposed strategy and targets to the Swiss Re Group and ultimately the SRL Board of Directors. The opinion focuses on the risk impact of the proposed strategy and the risks related to its implementation. The strategic plan, risk appetite and capital allocation ambition are expressed in a target portfolio for our assets and liabilities, which should ultimately deliver the Swiss Re Group's targeted performance.

Swiss Re's risk appetite outlines the Swiss Re Group's principles on acceptable risks and provides key directions for risk-taking and risk controlling as part of implementing our strategy: achieving targeted performance, providing liquidity and financial flexibility, managing capital adequacy, and protecting and growing franchise value.

The SRL Board of Directors further details our risk appetite through its approval or review of the following key steering frameworks as part of our planning process: target liability portfolio, strategic asset allocation and our target capital structure.

Swiss Re's risk tolerance describes the extent to which the SRL Board of Directors has authorized executive management to assume risk. It represents the amount of risk that we are willing to accept within the constraints imposed by our capital and liquidity resources, our strategy, and the regulatory and rating agency environment within which we operate.

The Swiss Re Group's risk tolerance is based on three objectives:

- to protect the shareholders' franchise by ensuring that the Swiss Re Group is able to continue operating the business following an extreme loss event;
- to maintain capital and liquidity at respectability levels that are sufficiently attractive from a client perspective, and that meet regulatory requirements and expectations; and
- to avoid material operational risks that could subject us to large operational losses with corresponding consequences from an economic, reputational or regulatory perspective.

To meet the first objective, the Swiss Re Group Risk Policy defines an extreme loss absorption limit with conditions that must be fulfilled following the realization of a loss corresponding to a 99% Swiss Re Group shortfall event. To meet the second objective, the Swiss Re Group's risk tolerance criteria includes respectability limits, which need to be met under normal operating conditions. These limits ensure that we have adequate capital and liquidity above minimum requirements to be considered a respectable counterparty by external stakeholders. To meet the third objective, we have established a group-wide risk matrix methodology in which key operational risks are assessed against an acceptable level of expected losses.

The risk tolerance respectability criteria for the Swiss Re Group are set out in the Swiss Re Group Risk Policy. The SRL Board of Directors is responsible for approving the risk tolerance criteria, as well as for monitoring and reviewing risk tolerance through the Swiss Re Group Finance and Risk Committee. Breaches or anticipated breaches of limits established to control the risk tolerance criteria must be communicated to the Swiss Re Group Finance and Risk Committee.

Swiss Re's risk-taking is governed by a limit framework in order to ensure that accumulation risk and large losses remain at an acceptable level, as well as to steer the allocation of available risk capacity. The limit framework is rooted in the risk appetite and risk tolerance objectives set in the Swiss Re Group Risk Policy and helps to translate these objectives into concrete, measurable criteria. In addition, lower level limits are implemented to allocate scarce capacity. The limit framework also allows for risk monitoring and thus supports risk controlling during the execution of the plan.

Risk Assessment

In SST 2019, total risk remains broadly stable, as higher underwriting and credit risks are more than offset by a decrease in financial market risk.

Swiss Re's internal model provides a meaningful assessment of the risks to which it is exposed and is an important tool for managing the business. It is used to measure the Swiss Re Group's risk position and related capital requirements as well as for defining the risk tolerance, risk limits, and liquidity stress tests.

Swiss Re is exposed to insurance and financial risks that are calculated in its internal risk model, as well as other risks that are not explicitly part of the economic capital requirement but are actively monitored and controlled due to their significance for Swiss Re. These include operational, liquidity, model, valuation, regulatory, political, strategic and sustainability risks.

Property and casualty insurance risk is mainly driven by natural catastrophe risks, such as Atlantic hurricanes, as well as underlying risks inherent in the business Swiss Re underwrites, in particular costing and reserving and non-life claims inflation risk as well as Atlantic hurricane risk. The main drivers of life and health insurance risk are lethal pandemic, mortality trend, lapse and critical illness risk. The Swiss Re Group's financial risk derives from both financial market risks as well as from credit risk. Key drivers of financial market risk are credit

spread and equity risk. Credit risk is mainly driven by default risk of capital markets products and credit and surety business.

Total risk is based on 99% tail VaR and represents the average unexpected loss that occurs with an estimated frequency of less than once in 100 years over a one-year time horizon.

In SST 2019, total risk remains broadly stable, as higher underwriting and credit risks are more than offset by a decrease in financial market risk. The weakening of major currencies against the US dollar lowers this effect.

SWISS RE GROUP CAPITAL REQUIREMENT BASED ON ONE-YEAR 99% TAIL VAR

	SST 2018	SST 2019	Change
Property and casualty	10 113	10 537	424
Life and health	7 727	8 633	906
Financial market	11 992	10 981	–1 011
Credit[1]	3175	3 371	196
Diversification	*–13148*	*–13 809*	*–661*
Total risk	**19859**	**19 713**	**–146**

[1] Credit comprises credit default and credit migration risk from both asset management and underwriting. Credit spread risk falls under financial market risk.

Swiss Re's internal risk model takes account of the accumulation and diversification between individual risks. The effect of diversification at the category level is demonstrated in the table above, which represents the difference between the Swiss Re Group 99% tail VaR and the sum of standalone tail VaR amounts in the individual risk categories. The extent of diversification is largely determined by the selected level of aggregation – the higher the aggregation level, the lower the diversification effect.

ALTERNATIVE RISK MEASUREMENTS FOR SWISS RE GROUP

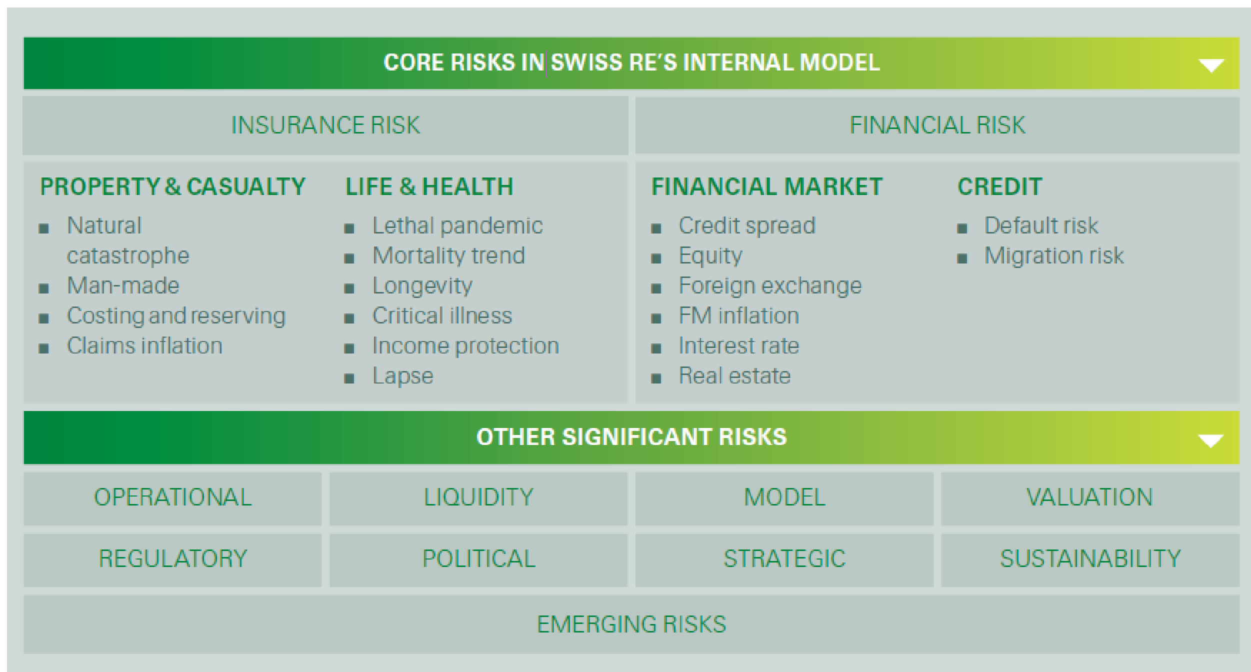
USD billions	SST 2018	SST 2019	Change in %
99% VaR[1]	14.6	**14.8**	1
99.5% VaR[1]	17.4	**17.5**	1

[1] For the alternative risk measurements, the same risk exposure and data basis is applied as for the SST calculation.

Alternative risk measurements — 99% and 99.5% VaR — remained broadly stable at USD 14.8 billion and USD 17.5 billion, respectively.

Our risk landscape

The risk categories shown in the table below are discussed on the following pages. Across these categories we identify and evaluate emerging threats and opportunities through a systematic framework that includes the assessment of potential surprise factors that could affect known loss potentials.



Swiss Re is exposed to a broad landscape of risks. These include risks that are actively taken as part of insurance or asset management operations, and are calculated in the internal risk model as part of its economic capital requirement as well as to allocate risk-taking capacity:

- ***property and casualty (P&C) insurance risk*** arises from coverage provided for property, liability, motor and accident risks, as well as for specialty risks such as engineering, agriculture, aviation and marine. It includes underlying risks inherent in the business we underwrite, such as inflation or uncertainty in pricing and reserving;
- ***life and health (L&H) insurance risk*** arises from coverage provided for mortality (death), longevity (annuity) and morbidity (illness and disability) as well as from acquiring closed books of business. In addition to potential shock events (such as a severe pandemic), it includes underlying risks inherent in life and health contracts that arise when mortality, morbidity or lapse experience deviates from expectations;
- ***financial market (FM) risk*** represents the potential impact on assets or liabilities that may arise from movements in financial market prices or rates, such as equity prices, interest rates, credit spreads, foreign exchange rates or real estate prices. Financial market risk originates from two main sources: investment activities and the sensitivity of the economic value of liabilities to financial market fluctuations; and
- ***credit risk*** reflects the potential financial loss that may arise due to diminished creditworthiness or default of counterparties of Swiss Re or of third parties; credit risk arises from investment and treasury activities, structured transactions and retrocession, as well as from liabilities underwritten by credit and surety insurance units.

The risk landscape also includes other risks that are not explicitly part of the Swiss Re Group's economic capital requirement but are actively monitored and controlled due to their significance for us. These include:

- ***liquidity risk,*** which represents the possibility that the Swiss Re Group will not be able to meet expected and unexpected cash flow and collateral needs without affecting either its daily operations or financial condition;
- ***operational risk***, which represents the potential economic, reputational or compliance impact of inadequate or failed internal processes, people and systems or from external events, including legal risk and the risk of a material misstatement in financial reporting. We have implemented a capital model for operational risk, which is used for Solvency II purposes;

- ***strategic risk***, which represents the possibility that poor strategic decision-making, execution or response to industry changes or competitor actions could harm the Swiss Re Group's competitive position and thus its franchise value;
- ***regulatory risk***, which arises from changes to insurance regulations and supervisory regimes as well as from interactions with regulatory authorities and supervisory regimes of the jurisdictions in which the Swiss Re Group operates;
- ***political risk***, which comprises the consequences of political events or actions that could have an adverse impact on Swiss Re Group's business or operations;
- ***model risk***, which reflects the potential impact of model errors or the inappropriate use of model outputs. It may arise from data errors or limitations, operational or simulation errors, or limitations in model specification, calibration or implementation; model risk may also be caused by insufficient knowledge of the model and its limitations, in particular by management and other decision-makers;
- ***valuation risk***, which represents uncertainty around the appropriate value of assets or liabilities. It may arise from product complexity, parameter uncertainty, quality and consistency of data, valuation methodology, or changes in market conditions and liquidity. The Swiss Re Group is exposed to financial valuation risk from investment assets it holds as well as reserve valuation risk from insurance liabilities that result from the coverage it underwrites; and
- ***sustainability risk***, which comprises the environmental, social and ethical risks that may arise from individual business transactions or the way Swiss Re conducts its operations.

Across all risk categories, the Swiss Re Group actively identifies ***emerging risks*** and threats as part of its risk identification process; this includes new risks as well as changes to previously known risks that could create new risk exposures, or increase the potential exposure or interdependency between existing risks.

Some of these risks are reflected indirectly in the risk model, as their realizations may be contained in the historical data used to calibrate some of the risk factors. In addition, output from the model is used in measuring liquidity risk under stressed conditions. As separate risk categories, these risks are an integral part of the risk landscape. They are monitored and managed within the Swiss Re Group Risk Management organization, and included in risk reports to executive management and the board of directors at Swiss Re Group and legal entity level.

Reputational risk is not considered a separate risk category but rather represents a possible consequence of any risk type in addition to the potential financial and compliance impact.

Insurance risk

Insurance risk management involves identifying, assessing and controlling risks that the Swiss Re Group takes through its underwriting activities, including related risks such as inflation or uncertainty in pricing and reserving. Swiss Re Group Risk Management also provides independent assurance throughout the business cycle, starting with the annual business planning process. It reviews underwriting standards, costing models and large transactions, and monitors exposures, reserves and limits.

In 2018, Swiss Re further refined its limit framework, establishing a principles- based approach that is more strongly focused on Swiss Re's key defensive objectives. The new framework enables more dynamic capital allocation while strengthening the accountability of the first line of control of the capacity allocation decisions and capacity management. Regular internal reports ensure transparency across the Swiss Re Group, providing management with quantitative and qualitative risk assessments. Swiss Re's insurance risk landscape and related governance processes are regularly discussed and reviewed by the Senior Risk Council and other insurance risk oversight bodies in order to assist and advise the Swiss Re Group CRO in the risk oversight.

We also manage and mitigate insurance risk through external retrocession, insurance risk swaps or by transferring risk to capital markets. This provides protection against extreme catastrophic events, further diversifies risk, stabilizes economic results and releases underwriting capacity.

Property & casualty risk

Change from SST 2018: +4%

Risk developments. The increase in property and casualty risk is driven by growth in property business, which increases both natural catastrophe and terrorism exposure. Costing and reserving risk decreases, reflecting claims payment and reserve releases partly related to the 2017 natural catastrophes, which were somewhat offset by reserve increases for the 2018 large losses.

Management. The legal entity CROs are responsible for overseeing all property and casualty exposures written in their areas. In addition, Swiss Re Group Risk Management monitors and controls accumulated exposures across Swiss Re to ensure that they remain within the defined risk tolerance level.

The first line of control for property and casualty risks lies within Swiss Re's underwriting units. In general, all transactions must be reviewed by at least two authorized individuals, and are subject to authority limits. Each underwriter is assigned an individual authority based on technical skills and experience. In addition, capacity limits are allocated to local teams; any business that exceeds this authority or is otherwise complex or unusual triggers an escalation process that extends up to the Swiss Re Group EC. Certain single risks and specified renewable treaty classes with non-material changes can be authorized by only one individual underwriter with the necessary authority − but these risks and treaties are subject to checks after acceptance.

All transactions that could materially impact the risk at Swiss Re Group level or for key legal entities require independent review and sign-off by Swiss Re Group Risk Management before they are authorized. This is part of a three-signature principle, under which key transactions must be approved by Client Markets, Underwriting and Swiss Re Group Risk Management. For transactions of defined types and within defined limits, this may be applied through the approval of underwriting or pricing guidelines. For other transactions, the signatures must be secured through an individual review.

In addition to underwriting and capacity limits, Swiss Re's limit framework includes individual limits for major natural catastrophe scenarios and other key risks, such as terrorism, claims inflation, reserving and liability. These limits guard against exposure accumulations and ensure that risk-taking remains within Swiss Re's risk tolerance

Management. The legal entity CROs are responsible for overseeing all property and casualty exposures written in their areas. In addition, Swiss Re Group Risk Management monitors and controls accumulated exposures across Swiss Re to ensure that they remain within the defined risk tolerance level.

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In addition to underwriting and capacity limits, the Swiss Re Group limit framework includes aggregate Swiss Re Group limits for Property & Casualty risk as well as individual limits for major natural catastrophe scenarios – Atlantic hurricane, Californian earthquake, European windstorm and Japanese earthquake. These limits guard against exposure accumulations and ensure that risk-taking remains within the Swiss Re Group's risk tolerance.

INSURANCE RISK STRESS TESTS: ANNUALISED LOSSES WITH A 200-YEAR RETURN PERIOD

Annualised, 99.5% VaR in USD millions	SST 2019
Atlantic hurricane	5 854
Californian earthquake	3 751
European windstorm	2 336
Japanese earthquake	3 351
Lethal pandemic	2 799

In SST 2019, the largest natural catastrophe exposure for Swiss Re Group derives from the Atlantic hurricane scenario with a USD 5.9 billion loss. The lethal pandemic loss is estimated to be at USD 2.8 billion.

Life & health risk

Change from SST 2018: +12%

Risk developments. Overall life and health risk increases due to business growth in Asian markets, increasing critical illness and lethal pandemic risk. The increase is further driven by the introduction of an improved health model, which assumes higher dependencies between different health products and mortality trend risk.

Management. The legal entity CROs are responsible for overseeing all life and health exposures written in their respective areas. Accumulated exposures across Swiss Re are monitored and controlled by Swiss Re Group Risk Management to ensure that they remain at an acceptable level for the Swiss Re Group.

Underwriters represent the first line of control for life and health risks. All transactions that could materially change risk at the Swiss Re Group level or for key legal entities require independent review and sign-off by Swiss Re Group Risk Management before they can be authorized. This is part of a three-signature principle, under which key transactions must be approved by Client Markets, Underwriting and Swiss Re Group Risk Management. For transactions of defined types and within defined limits, this may be applied through the approval of underwriting or pricing guidelines. For other transactions, the signatures must be secured through a review of the individual transaction.

In addition to underwriting and capacity limits, Swiss Re's limit framework includes separate limits for key risks such as mortality, longevity and lethal pandemic risk. Market exposure limits are in place for catastrophe and stop loss business. Swiss Re pays particular attention to densely populated areas and applies limits for individual buildings to guard against risk exposure accumulation.

Financial risk

Financial risk management involves identifying, assessing and controlling risks inherent in the financial markets as well as counterparty credit risks, while monitoring compliance with Swiss Re risk appetite and risk management standards.

The Swiss Re Group Financial Risk Management team oversees all activities that generate financial market or credit risk. Its mandate covers internally and externally managed assets, strategic participations, treasury activities, and credit and market risks that derive from underwriting and retrocession activities, including structured transactions, credit insurance and surety business. The Head of Financial Risk Management reports to the Swiss Re Group CRO, with a secondary reporting line to the Swiss Re Group Chief Investment Officer ("**Swiss Re Group CIO**"). Swiss Re Group Financial Risk Management controls exposure accumulation for financial market and credit risks. In addition, the team is responsible for assurance activities related to asset valuation and financial risk models, as well as for reporting financial risks. These responsibilities are exercised through defined governance processes, including regular reviews by Swiss Re's Senior Risk Council and other financial risk oversight bodies.

All activities with financial market and credit risk are subject to limits at various levels of the organization (*e.g.*, Group, lines of business and legal entities). At the highest level, the SRL Board of Directors sets a financial risk concentration limit which defines how much risk exposure can derive from financial risk. The Swiss Re Group EC establishes the principal risk limits for aggregate financial market and credit risk at the Swiss Re Group

level. Where required, additional risk limits are established by Swiss Re Group Risk Management for legal entities, key business lines, individual counterparties and countries. Furthermore, as part of the planning process, the risk-taking functions employ capacity limits to control the amount of risk mandated from the risk owner to the risk takers. Limits may be expressed in terms of losses in a stress scenario, value at risk based on historic market moves, linear sensitivities to a particular risk factor or different methodologies of exposure aggregation.

Financial market risk

Change from SST 2018: -8%

Risk developments. Financial market risk decreases, mainly driven by significantly lower credit spread and to a lesser extent by a lower equity risk. The decrease in credit spread and equity risk is driven by adverse market developments during 2018. The increased minority investment of MS&AD into ReAssure Jersey One Limited leads to a further reduction in financial market risk, in particular for credit spread risk.

Management. Financial market risk is monitored and controlled by dedicated experts within the Swiss Re Group's Financial Risk Management team. Swiss Re Group Financial Risk Management regularly reports on key financial market risks and risk aggregations, as well as on specific limits for internally and externally managed investment mandates. These reports track exposures, document limit usage and provide information on key risks that could affect the portfolio. The reports are presented and discussed with those responsible for the relevant business line at the weekly Financial Market Risk Council.

The reporting process is complemented by regular risk discussions between Swiss Re Group Financial Risk Management, Asset Management and the Swiss Re Group's external investment managers, as well as by regular interactions with other key units that take financial market risk, such as Principal Investments and Acquisitions, Treasury and the respective business teams that write transactions.

FINANCIAL MARKET SST RATIO SENSITIVITIES

Impact on SST ratio	SST 2019
Interest rates +50bps	10pp
Interest rates –50bps	–12pp
Spreads +50bps	–7pp
Spreads –50bps	8pp
Equity values +25%	3pp
Equity values –25%	–3pp
Real estate values +25%	6pp
Real estate values –25%	–6pp

Among financial market sensitivities, the Group is most sensitive to a 50-basis point decrease in interest rates, leading to an estimated decrease in the SST ratio of 12 percentage points.

CREDIT RISK STRESS TEST

Annualised, 99.5% VaR in USD millions	SST 2019
Credit default	2331

Credit risk

Change from SST 2018: +6%

Risk developments. Credit risk increases since SST 2018 is driven by a slight business growth in credit and surety business.

Management. Credit risk is monitored and controlled by experts within the Swiss Re Group Financial Risk Management team. Swiss Re Group Financial Risk Management regularly monitors and reports on credit exposures and limits. In addition, it is responsible for regularly monitoring corporate counterparty credit quality and exposures, and compiling watch lists of cases that merit close attention. These reports are presented and discussed with those responsible for the relevant business line at the weekly Credit Council.

The reporting process is supported by a Swiss Re Group-wide credit exposure information system that contains all relevant data, including counterparty details, ratings, credit risk exposures, credit limits and watch lists. Key credit practitioners across Swiss Re have access to this system, thus providing the necessary transparency to implement specific exposure management strategies for individual counterparties, industry sectors and geographic regions.

Credit risks are aggregated by country in order to monitor and control risk accumulation to specific risk drivers, such as economic, sovereign and political risks.

Management of other significant risks

Operational risk

The Swiss Re Group has implemented an internal control system to mitigate operational risks through three lines of control. This system assigns primary responsibility for identifying and managing operational risks to individual risk takers (first line of control), with independent oversight and control by the Swiss Re Group Risk Management and Compliance functions (second line of control) as well as Swiss Re Group Internal Audit (third line of control). Members of the Swiss Re Group EC are required to certify the effectiveness of the internal control system for their area of responsibility on a quarterly basis.

Operational risk is inherent within Swiss Re's business processes. As Swiss Re does not receive an explicit financial return for such risks, the approach to managing operational risk differs from the approach applied to other risk categories. The purpose of operational risk management is not to eliminate risks but rather to identify and cost-effectively mitigate operational risks that approach or exceed Swiss Re's tolerance.

Swiss Re Group Risk Management is responsible for monitoring and controlling operational risks based on a centrally coordinated methodology. This includes a pre-defined taxonomy that is used for identifying, classifying and reporting operational risks, as well as a matrix in which risks are assessed according to their estimated probability and impact. Risks are assessed for their residual economic, financial reporting, reputational and compliance impact, taking into account existing mitigation and controls.

The matrix is also used to assess residual exposures against Swiss Re's tolerance limits for operational risk. This limit represents the level of operational risk that the SRL Board of Directors and executive management teams are willing to accept. Material risks that exceed or are approaching risk tolerance are reported on a quarterly basis to executive management and boards of directors at Swiss Re Group and legal entity level. In addition, mitigation strategies are required for all risks that are outside of operational risk limits in order to bring them within tolerance.

Cyber risk and information security are a key focus of Swiss Re's operational risk controls. The Swiss Re Group performs an annual cyber risk assessment to determine the current maturity of controls; this is based on internationally recognized standards defined by the Information Security Forum. The results of the assessment are shared with senior management and integrated into Swiss Re's Group-wide cybersecurity program. This program focuses on five key areas: security culture, critical information, technology defense, incident response and supplier governance.

All operational events and issues are recorded and managed in a central Operational Swiss Re Group Risk Management system in order to address the identified problems and avoid the recurrence of similar events. The results are reviewed by the Swiss Re Group CRO and reported to the management team and SRL Board of Directors.

While techniques and technologies to turn data into risk knowledge are becoming increasingly sophisticated, Swiss Re further enhanced its organizational measures to protect privacy and safeguard data confidentiality in line with requirements of the EU GDPR which took effect on May 25, 2018. Processes have been fine tuned to meet new requirements (e.g., Data Subject Rights, Data Protection Impact Assessment, Personal Data Breach Notification) with further strengthening of Swiss Re internal control system and increased awareness of expected behaviors in respect of data protection.

Strategic risk

Overall responsibility for managing strategic risk lies with the SRL Board of Directors, which establishes Swiss Re's overall strategy. The Boards of legal entities are responsible for the strategic risk inherent in their specific strategy development and execution. Strategic risks are addressed by examining multi-year scenarios, considering the related risks, as well as monitoring the implementation of the chosen strategy year-by-year in terms of the annual business plan.

As part of their independent oversight role, Swiss Re Group Risk Management, Compliance and Swiss Re Group Internal Audit are responsible for controlling the risk-taking arising from the implementation of the strategy.

Regulatory risk

Swiss Re is strongly engaged in the regulatory debate and interaction, striving to mitigate potentially negative impacts while supporting reforms that could enhance the overall health of the sector, facilitate convergence of regulatory standards or generate business opportunities.

Regulatory developments and related risks that may affect Swiss Re and its subsidiaries are identified, assessed and monitored as part of regular oversight activities. Periodic reports and recommendations on regulatory issues are provided to executive management and the SRL Board of Directors and legal entity level boards.

The regulatory environment of the insurance industry continues to evolve on the regional, national and international level. While some regulatory changes create new business opportunities, others come with significant costs and business restrictions. Growing regulatory complexity, increased national protectionism and a fragile global economy are persistent themes affecting regulation and the way Swiss Re operates worldwide.

While prudential regulation in most regions is developing towards more risk-sensitive and economic-based capital regimes, regulatory fragmentation is increasing. Regulators show declining appetite for globally aligned policy reforms. Local capitalization rules often fail to fully recognize the benefits of risk mitigation and diversification. In addition, there are moves to limit the use of internal models influenced by post-crisis banking regulation. Swiss Re strongly supports the use of internal models, full recognition of risk mitigation and diversification, appropriate consideration of counterparty default and concentration risk, and efficient application of eligible capital instruments. Uncoordinated regulatory approaches will be less effective in promoting financial stability and could undermine re/insurers' ability to support economic activity and closing the protection gap.

Technology regulation is increasing in importance. While this is mainly targeted at technology companies, it also has a significant effect on insurers and reinsurers where it concerns access to and usability of data. Insurance regulators also have to examine the use of data. If efforts at data regulation are not coordinated between jurisdictions, they could impact Swiss Re's future use of data-linked technologies on a global basis.

Swiss Re continues to advocate for the removal or reduction of market access barriers, so that policyholders, governments, taxpayers and national economies can fully benefit from international diversification and therefore reliable, quality and affordable risk cover.

Political risk

Political developments can threaten Swiss Re's operating model but also open up opportunities for developing the business. The Swiss Re Group adopts a holistic view of political risk and analyses developments in individual markets and jurisdictions, as well as cross-border issues such as war, terrorism, energy-related issues and international trade controls.

A dedicated Political Risk team identifies, assesses and monitors political developments world-wide. Swiss Re's political risk experts exercise oversight and control functions for named political risks, such as in the political risk insurance business; this includes monitoring political risk exposures, providing recommendations on particular transaction referrals and risk reporting. In addition, the Political Risk team provides specific country ratings that cover political, economic and security-related country risks; these ratings complement sovereign credit ratings and are used to support risk control activities and inform underwriting or other decision-making processes throughout the Swiss Re Group.

Swiss Re seeks to raise awareness of political risk within the insurance industry and the broader public, and actively engages in dialogue with clients, media and other stakeholders. It also builds relationships that expand its access to information and intelligence, and allows it to further enhance its methodologies and standards. For example, Swiss Re participates in specialist events hosted by institutions such as the International Institute of Strategic Studies, the Geneva Center for Security Policy, and the Swiss Re Group Risk Management Association, and maintains relationships with political risk specialists in other industries, think tanks and universities, as well as with governmental and non-governmental organizations.

The ultimate outcome of the withdrawal of the United Kingdom from the European Union and the relationship between the United Kingdom and the European Union remain unclear. Swiss Re operates in the UK through the UK branches of its Luxembourg entities and some UK-domiciled entities. Swiss Re is actively engaging with the relevant UK and EEA regulators to ensure minimum disruption from the withdrawal of the United Kingdom from the European Union and has actioned contingency plans to mitigate the risk of any adverse impacts on Swiss Re's businesses or the ability to service clients and customers as a result of such withdrawal.

Model risk

Swiss Re uses models throughout its business processes and operations, in particular to price insurance products, value financial assets and liabilities, assess reserves and portfolio cash flows, and estimate risk and capital requirements. Model owners have primary responsibility for model-related risks and are required to adhere to a robust tool development process, including testing, peer review, documentation and sign-off. A similar process also applies to model maintenance.

Swiss Re's model governance is based on Swiss Re Group-wide standards for model assurance. These standards seek to ensure that each material model has a clear scope, is based on sound mathematical and scientific concepts, has been implemented correctly and produces appropriate results given the stated purpose. Furthermore, the calibration of model parameters (and the data on which calibration relies) must be trustworthy, while expert judgments are required to be sensible, documented and evidenced.

Analytical or financial models that are used for costing, valuation and risk capital calculations are governed by Swiss Re's Model and Tool Assurance Framework. This requires the appropriateness of models to be assessed in an independent end-to-end validation process that includes specification, algorithms, calibration, implementation, results and testing.

Material models used for costing, valuation of reserves and assets as well as Swiss Re's internal risk model are validated by dedicated teams within Swiss Re Group Risk Management. These teams provide independent assurance that the framework has been adhered to, and also conduct independent validations.

Swiss Re's risk model is also subject to regulatory scrutiny.

Model-related incidents are captured within Swiss Re's operational risk framework. In addition, material model developments, incidents and risks are reported in regular risk updates to executive management and the SRL Board of Directors and the legal entity level boards.

Swiss Re works closely with industry peers to develop and share best practices for assessing and managing model-related risks. In this context, we are actively participating in a CRO Forum working group that provides a platform for such exchanges and are working on frameworks for model risk.

Valuation risk

Financial valuation risk is managed by a dedicated team within Swiss Re Group Financial Risk Management. The team performs independent price verification for financial risk positions to confirm that valuations are reasonable and ensure there are no material misstatements of fair value in Swiss Re's financial reports. The results of the independent price verification process are reviewed by the Asset Valuation Committee. Summary results are regularly reported to executive management and the SRL Board of Directors and the legal entity level boards. In addition, Swiss Re's external auditor conducts quarterly reviews as well as a comprehensive year-end audit of controls, methodology and results.

Reserve valuation risk is managed by Swiss Re's Actuarial Control function, with dedicated teams for property and casualty, and life and health valuation. These teams ensure that Swiss Re's reserve setting process uses an

appropriate governance framework, including defined accountabilities and decision-making processes for risk takers (as the first line of control) as well as for Actuarial Control. The framework ensures that there is independent assurance on the data, assumptions, models and processes used for valuation purposes; for all property and casualty business and selected life and health portfolios, it also includes an independent valuation of coverage provided to ensure that reserves are within an adequate range. Regular deep-dive investigations are performed into selected portfolios in order to review the appropriateness of both the reserves and the applied reserving approach.

Sustainability risk

Swiss Re's continued business success depends on the successful management of sustainability risks, thus helping to maintain the trust of its stakeholders. The Swiss Re Group has a long-standing commitment to sustainable business practices, active corporate citizenship, as well as good, transparent governance. All employees are required to commit to and comply with Swiss Re's values and sustainability policies.

Potential sustainability risks are mitigated through clear corporate values, active dialogue and engagement with affected external stakeholders, and robust internal controls. These include a Swiss Re Group-wide Sustainability Risk Framework to identify and address sustainability risks across Swiss Re's business activities. The framework comprises sustainability-related policies − with pre-defined exclusions, underwriting criteria and quality standards − as well as a central due diligence process for related transactional risks.

Sustainability risks are monitored and managed by dedicated experts in Swiss Re's Group Sustainability Risk team, which is also responsible for maintaining the Sustainability Risk Framework. In addition, this unit supports Swiss Re's risk management and business strategy through tailored risk assessments and risk portfolio reviews. It fosters risk awareness through internal training, and facilitates development of innovative solutions to address sustainability issues. Finally, it represents and advocates Swiss Re's position on selected sustainability risk topics to external stakeholders.

Swiss Re is a founding signatory to the UN Principles for Sustainable Insurance and is currently a board member of this initiative, which provides a global framework for managing environmental, social and governance challenges. Swiss Re has been actively contributing to the initiative for several years, co-chaired it from 2013 to 2015 and publicly reports progress against the principles in its annual Corporate Responsibility Report.

Swiss Re is currently developing a carbon risk steering mechanism that will help to guide its business towards a low-carbon world and support its clients in their transition. In July 2018, Swiss Re launched a first element of the carbon steering mechanism in the form of a new thermal coal policy. The new policy is part of its Sustainability Risk Framework and applies across all lines of direct, facultative and treaty business.

Reflecting the Swiss Re Group's strong overall commitment to corporate responsibility, Swiss Re continued to be included in leading sustainability indexes and rankings such as FTSE4Good, Euronext Vigeo World 120, Ethibel Excellence Global, oekom Prime Investment and the Dow Jones Sustainability Index.

Emerging risk

Anticipating possible developments in the risk landscape is a central element of Enterprise Swiss Re Group Risk Management. Swiss Re promotes pre-emptive thinking on risk in all areas of the business in order to reduce uncertainty and diminish the volatility of the Swiss Re Group's results, while also identifying new business opportunities and raising awareness for emerging risks.

For this purpose, Swiss Re's risk identification processes are supported by a systematic framework that identifies, assesses and monitors emerging risks and opportunities across all areas of Swiss Re's risk landscape.

This framework combines a bottom-up approach driven by employee input with central and regional experts on emerging risk. The resulting information is complemented with insights from external organizations such as think tanks, academic networks and international organizations, as well as from interaction with clients.

Findings are reported to management and internal stakeholders, including a prioritized overview of newly identified emerging risks and an estimate of their potential impact on Swiss Re's business. Swiss Re also publishes an annual emerging risk report (Swiss Re SONAR) to raise awareness within the Swiss Re Group and

across the industry, and initiate a risk dialogue with key external stakeholders. To further advance risk awareness across the industry and beyond, Swiss Re continues to participate actively in strategic risk initiatives such as the CRO Forum’s Emerging Risk Initiative and the International Risk Governance Council

Our Business

OVERVIEW

Overview of the Guarantor Group

We are a leading and diversified global reinsurer, and are part of the Swiss Re Group. We operate through offices in more than 20 countries, providing expertise and services to clients throughout the world. We have been engaged in the reinsurance business since our foundation in Zurich, Switzerland in 1863. We offer a comprehensive range of reinsurance and insurance-based solutions to manage risk and capital, with a focus on accessing, transforming and transferring insurable risks. Our traditional reinsurance products and related services for property and casualty, together with our life and health business, are complemented by insurance-based capital markets solutions and supplementary services for comprehensive risk management.

At and for the year ended December 31, 2018, we reported:

- premiums earned of $28.8 billion;
- total assets of $144.1 billion;
- shareholder's equity of $14.8 billion; and
- total investments of $85.7 billion.

Of our premiums earned in 2018, $16.1 billion, or 56%, represented Property & Casualty Reinsurance premiums earned, $12.7 billion, or 44%, represented Life & Health Reinsurance premiums earned.

We are recognized as a leading authority in managing capital and risk, based on our core competencies of:

- risk transfer, for which our objective is to identify, evaluate, underwrite and diversify risk to minimize the capital cost of carrying the risk;
- underwriting expertise, based on cycle management and portfolio steering; and
- asset management, which combines asset-liability management ("ALM") skills and financial market knowledge.

We provide property & casualty and life & health clients and brokers with reinsurance products, insurance-based capital market solutions and risk management services. Our traditional reinsurance underwriting skills include a wide range of property & casualty and life & health products and related services. In addition, we provide solutions that have insurance risks embedded in capital markets structures, including securitization and trading of insurance risks, where we have a leading market position. Our global reach enables us to offer our expertise and products to a range of clients throughout the world.

We offer a range of traditional reinsurance products and also focus on promoting innovation and development of new risk transfer solutions through our Property & Specialty (property, credit and surety, natural catastrophe, as well as engineering, aviation and marine), Casualty (liability and motor) and Life & Health divisions. We deploy our underwriting knowledge and expertise to analyze the risks we underwrite and to develop the criteria for risk pricing in our life and non-life businesses.

SRZ is currently rated "AA-" (stable outlook) by S&P, "Aa3" (stable outlook) by Moody's and "A+" (stable outlook) by A.M. Best, which are generally considered to be significant rating agencies with respect to the evaluation of insurance and reinsurance companies.

Summary Reported Results

Guarantor Group

The following table sets out figures for the Guarantor Group as well as for the Reinsurance Business Unit as of the dates and for the periods indicated:

	As of and for the year ended December 31,

	Guarantor Group		Reinsurance Business Unit[1]
	2017	2018	2018
	($ in millions) (audited)		
Premiums earned	28,525	28,778	28,778
Fee income from policyholders	130	154	152
Total expenses before interest expenses	(31,193)	(30,117)	(29,828)
Net income/(loss) attributable to common shareholder	(1)	970	1,131
Shareholder's equity	18,262	14,764	15,757
EBIT[2]	800	1,825	2,122
Total assets	150,118	144,089	141,736
Total investments	89,716	85,657	88,215[3]

(1) Differences between the Guarantor Group and the Reinsurance Business Unit are attributable to the fact that for the Reinsurance Business Unit, the Swiss Re Group aggregates the Property & Casualty Reinsurance and the Life & Health Reinsurance segments of the Swiss Re Group without giving effect to items included under "Other" in the Swiss Re Group segment presentation (which encompasses non-core activities) and under "Consolidation" (which encompasses internal and external retrocession and other intra-group arrangements).

(2) EBIT represents income/loss before interest and income tax expense.

(3) Does not include cash and cash equivalents; with cash and cash equivalents the total would be $91,571 million. The following table sets forth the breakdown of the investment portfolio on a Reinsurance Business Unit basis (including cash and cash equivalents):

	As of December 31, 2018	
	Property & Casualty Reinsurance	Life & Health Reinsurance
	($ in billions) (unaudited)	
Cash and cash equivalents	1.7	1.7
Short-term investments	2.5	1.2
Government bonds	25.8	13.1
Credit bonds	10.2	16.1
Equities[1]	3.2	0.7
Mortgages and other loans	7.5	1.8
Other investments (including policy loans)	4.4	1.3
Investments for unit-linked business	--	0.4
Total	**55.3**	**36.3**

(1) Includes equity securities, private equity and Principal Investments and Acquisitions.

The following table sets forth key financial statement line items for our Property & Casualty Reinsurance segment and the Life & Health Reinsurance segment for the periods indicated.

	Year ended December 31,	
	2017	2018
	($ in millions) (audited, unless otherwise indicated)	
Property & Casualty Reinsurance		
Premiums earned	16,667	16,095
Total revenues	18,345	17,495
Claims and claim adjustment expenses	(13,172)	(11,614)
Total expenses before interest expenses	(18,584)	(16,740)
Net income/(loss) attributable to common shareholder[1]	(413)	370
Net operating margin (%)[2] (unaudited)	(1.3)	4.3
EBIT[3]	(239)	755

	Year ended December 31,	
	2017	2018
	($ in millions) *(audited, unless otherwise indicated)*	
Life & Health Reinsurance		
Premiums earned and fee income from policyholders	11,980	12,835
Total revenues	13,963	14,455
Life and health benefits	(9,211)	(10,280)
Total expenses before interest expenses	(12,148)	(13,088)
Net income attributable to common shareholder[4]	1,092	761
Net operating margin (%)[2] (unaudited)	13.1	9.4
EBIT[3]	1,815	1,367

(1) Excluding the impact of the US GAAP Accounting Change, net income would have been $547 million.

(2) Net operating margin is calculated as income/loss before interest and income tax expense divided by total operating revenues. Total operating revenues are total revenues excluding unit-linked and with-profit revenues.

(3) EBIT represents income/loss before interest and income tax expense.

(4) Excluding the impact of US GAAP Accounting Change, net income would have been $829 million.

Business Strategy

We operate within the strategy set out by the Swiss Re Group. Our goals are consistent with the overall Swiss Re Group financial targets and our strategy is informed by the components of the Swiss Re Group strategy to the extent it bears on Property & Casualty Reinsurance and Life & Health Reinsurance operations.

We seek to become the leading player in the wholesale reinsurance industry and we aim to continue to position ourselves, based on a combination of our underwriting knowledge and experience, geographic and product diversification, and financial strength, as well as appropriate allocation of capital to risk portfolios, to meet Swiss Re's financial targets for 2019 and beyond (focusing on profitability and economic growth).

In furtherance of our strategic goals, we will seek to focus on growth, through Swiss Re's systematic capital allocation, as well as applying our risk knowledge to support capital allocation. As a global organization with a wide product range and geographical reach, we systematically allocate capital by balancing opportunities on a risk-adjusted basis to generate sustainable earnings and growth over the long-term. An annual top-down capital allocation underpins Swiss Re's business planning process; throughout the year, Swiss Re actively steers its deployed capacity to maximise return. Swiss Re can change the capital allocated to particular risk pools as markets move and it develops new insights. This activity is rooted in Swiss Re's ability to take a forward-looking perspective on the economics of risk pools and allocate capital accordingly. Our key priorities for growth include:

- ***Focus on reinsurance Transactions and Solutions***. Our ability to engage in large and tailored transactions, which we now group under our Transactions business, has created a market in which few others are able to operate and we intend to focus increasingly on large and tailored transactions that address our clients' business challenges and allows Swiss Re to put its capital to use at differentiated terms and conditions. We believe that our client service model positions us well to offer differentiated solutions that are tailored to our clients' specific needs and we will continue to emphasize the importance of a client-centric focus. In our Solutions business, we will seek to use technology at scale to benefit our individual cedents' ability to offer more innovative solutions. A recent example is our partnership with BMW to create a vehicle-risk assessment model, the advanced driver assistance system and its risk scoring methodology, which will provide insurers with the ability to incorporate this system into their pricing and drivers with the benefit of premium pricing that takes account of safety features of their vehicles.
- ***Continue to focus on high growth markets.*** We view high growth markets as offering us significant growth and market-shaping potential, and we expect to seek access to a variety of such markets through acquisitions and partnerships. The key areas of focus for us will continue to be Brazil, China, India and Mexico. Indonesia remains a key potential market, and we will also focus with a longer time horizon on Sub-Saharan Africa and Vietnam.
- ***Broaden and diversify our client base to increase access to risk.*** In the face of reduced cession rates in many lines of business and increased competition, we will continue to seek to access new geographic markets, new clients and new risks, recognizing that new risks are emerging and a range of underinsured risks continue to grow. We believe new client segments and distribution channels – both of which have been enhanced by technology – can strengthen our position as the balance of supply and demand shifts. We will assess growth opportunities with caution, focusing increasingly on tailored solutions and large transactions, while pursuing a small number of opportunities presented by major demographic, socioeconomic and technological trends. We will aim to extend our leadership in mature markets, while at the same time maintaining leading positions in high growth markets. We will seek to broaden our client base by expanding our regional and national insurer client base and by working with governments and supranational organizations to help close the so-called protection gap (between economic and insured losses).
- ***Emphasize differentiation.*** We emphasize our financial strength, long-standing client relationships, status as a knowledge company and technological innovation as key components of what differentiates us from our competitors. The three components of our differentiation strategy are:
  - Core business, which comprises our day-to-day interactions with clients. Our focus lies on continuing to simplify and drive efficiencies and we believe that our close and long-standing client relationships allow us to better understand our clients' needs and develop tailored solutions directly with them.

- Transactions business, which comprises tailor-made, innovative transactions that we create for our clients by applying our knowledge and capital expertise.
- Solutions business, which, supported by our technology strategy, adds value to clients' businesses by improving their profitability and helping them to grow.

- ***Enhance our research and development*** (“**R&D**”) **efforts**. R&D continues to play a critical role for us in providing competitive advantages in a rapidly changing market environment and in driving outperformance. We believe R&D equips our underwriters with distinctive knowledge and insights into the future of risk pools and enables Swiss Re to steer through allocating capital to risk pools. For example, to continue our underwriting performance, Swiss Re focuses its R&D activities on addressing market issues such as the impact of climate change on insurance losses (both in terms of frequency and severity), cyber risk scenarios, or in the area of critical illness, the over-diagnosis through emerging technologies. The launch of the Swiss Re Institute in 2017 embodies Swiss Re's ongoing commitment to creating and benefiting from cutting-edge knowledge and conducting fundamental research into trends that could have an impact on our business.

  Swiss Re combines data and innovative analytical tools, and partners with academics from institutions around the world, consultants, professionals across various disciplines, start-ups, institutions and others to develop and enhance services to our clients, automated pricing tools, inputs to underwriters and research behind our forward-looking perspectives on risk pools.

  We continue to see growing demand for solutions and services that deploy our R&D to clients and Swiss Re intends to continue investing in R&D to drive our efforts to capitalize on value-added services that we provide as a differentiator and derive a return on the services we provide. We seek, for example in our Property & Casualty Reinsurance business, to help our clients grow through new or co-product development, portfolio/risk analysis, cat modeling advisory, economic solvency consulting and rating exposure support. Swiss Re is also actively investing in creating product offerings for new and peak risks arising from technological advancements like telematics and cyber and accumulation risks, while bringing outside innovation into insurance through accelerator programs.

- ***Continue to focus on technology***. The use of ever-changing technology is a crucial aspect of our business, and we believe that technological innovation will be transformative for our industry. Swiss Re's technology strategy is integrated in our business strategy. Through in-house developments and external partnerships, Swiss Re seeks to identify challenges along the entire insurance value chain that technology could solve, as well as to leverage technology to understand risks better, anticipate changes in the insurance value chain, secure access to new risk pools, develop solutions that tackle the protection gap, improve underwriting and pricing and to increase efficiency. The four components of Swiss Re's technology strategy are:

  - to invest in technology embedded in its own value chain (for example, to improve underwriting, to improve time to market and to enhance services to our clients);
  - to invest in technology embedded in our primary clients' value chain to improve their processes; and
  - to build up a proprietary insurance-related data pool to retain and enhance competitive advantages such as public data and machine learning.

  Swiss Re intends to continue to invest strategically in technological innovation across our business, especially in the field of digital analytics (including partnerships with digital leaders), smart analytics and cognitive computing, to enhance our value proposition and support growth. In contrast to the past, Swiss Re is moving away from building proprietary accelerators and investing directly in technology firms, and instead are involving our internal resources to maximize value generation. Swiss Re is establishing close ties with technology clusters for sourcing and knowledge access, it is partnering with venture capital firms and accelerators and undertaking research projects through academic partnerships. Swiss Re has established a center of competence for digital and smart analytics, and it has created a technology transformation board to coordinate innovation at a senior level across businesses, functions and regions. To help our clients improve their performance, Swiss Re will seek to continue developing new solutions to provide them with meaningful data insights so that they can better understand their customers and develop products that are even more tailored to their needs, as well as work with our clients to exploit new developments and advances.

Swiss Re will also continue to prioritize the use of technology to achieve internal efficiency. One example is our Property & Casualty Business Management Intelligence tool, which leverages big data techniques for claims management.

We believe that modern technologies will disrupt the insurance industry's value chains and pose great challenges to the entire industry's structure. While we believe that digital disruption will have a less immediate impact on reinsurance and major risk business than on primary insurance business, we seek to be strategically prepared for this and are examining various strategic options that will enable us to respond rapidly to the digital transformation and fully capitalize on its potential.

- ***Attract and nurture talent***. Attracting the right talent and delivering a positive recruiting experience for our candidates and line managers is key for our success and our employer brand. Swiss Re's brand promise "Let's be smarter together" reflects our renewed energy and aspirations, signaling its ambition to be a best-in-class employer and build on its strengths while seeking opportunities to evolve and differentiate ourselves from our competitors. We will seek to continue improving our recruiting experience (such as leveraging digital technologies to enable candidates and hiring managers to interact seamlessly and effectively) and will continue to focus on development and training programs for our people.
- ***Maintain leadership in sustainability.*** Swiss Re has a long-standing commitment to being a responsible company and was an early mover in systematic integration of environmental, social and governance ("**ESG**") criteria in its investment decisions. Swiss Re regularly assesses the actual and potential impacts of climate-related risks and opportunities on our business, strategy and financial planning. Swiss Re has implemented recommended climate-related financial disclosures in its public reporting. In 2018, Swiss Re introduced a thermal coal policy for our underwriting, pledging not to provide re/insurance to businesses with more than 30% exposure to thermal coal utilities or mining. The policy is fully integrated into our sustainability risk framework. It is active in across the spectrum of renewable energy reinsurance and is recognized as a "led market" for offshore wind covers. Swiss Re was an early mover in switching to ESG benchmarks in equity and credit markets. It has stopped investing in companies that generate 30% or more of their revenue from thermal coal mining or that use at least 30% thermal coal for power generation and divested from related holdings. Swiss Re also excludes from its investment portfolio companies that generate 20% or more of their revenue from tar sands operations. As examples of innovative ESG solutions, Swiss Re offered the first country-level earthquake parametric cover in China, the largest sovereign-sponsored cat bond issued by the World Bank in Latin America and flood insurance for homeowners in Florida, based on a proprietary flood model.

Our Operations

We write all major lines of reinsurance with clients throughout the world and use a variety of distribution channels depending on local market characteristics and customer needs. Our reinsurance business is diversified by line, geography and type of business. We have a strong reputation for innovative reinsurance and risk management solutions, and provide wholesale reinsurance products, insurance-based capital market solutions, and supplementary risk management services to our clients and brokers around the globe.

In 2018, the Americas, Europe (including the Middle East and Africa) and the Asia-Pacific regions accounted for 48%, 30% and 22%, respectively, of gross premiums earned and fee income from policyholders, compared to 50%, 28% and 22%, respectively, in 2017.

Property & Casualty Reinsurance

Our Property & Casualty Reinsurance portfolio is diversified by line of business, type of reinsurance and geography. We are a leader in insurance-based capital markets solutions and public sector risk transfer, and we combine our global expertise with local knowledge in order to provide our clients with financially sound reinsurance support and tailor-made solutions in all property and casualty lines of business.

Our Property & Casualty Reinsurance business consists of the following sub-segments: Property traditional business, Casualty traditional business, Specialty Lines traditional business and non-traditional business, and includes the following principal lines. For 2018, on a net premiums earned basis, Casualty represented 48%, Property 37% and Specialty Lines 15%.

- *Property*. Includes fire and business interruption insurance and allied lines, insuring most importantly against fire, explosion, malicious damage, strike, riot, civil commotion and natural perils, such as flood, windstorm, hail and earthquake.
- *Casualty*. Comprises motor, general third-party and products liability, financial lines, cyber, workers' compensation, employers' liability and personal accident business.
    - Motor. Includes cover for physical own damage, accident and liability losses involving motor vehicles.
    - Liability. Includes cover for industrial, commercial, products or private liability to third parties.
    - Financial lines. Includes a full array of management and professional liability products including, but not limited to, Directors' & Officers' ("D&O") Liability, Errors & Omissions ("E&O") for professions such as lawyers, accountants, architects and engineers, Technology E&O, Media E&O, Pension Trust Liability, Employment Practices Liability and Medical Professional Liability.
    - Cyber. Includes first-party coverage; typical coverages are for business interruption and data restoration coverages against non-physical IT failures, network security liability, privacy liability, computer crime and cyber extortion.
    - Management and professional liability. Includes cover for E&O, professional, and management liability exposures for corporate clients.
    - Workers' compensation. Includes workers' benefits as a result of injury or death from accidents or occupational disease while on the job.
    - Employers' liability. Includes cover to protect employers from liabilities arising from disease, fatality, or injury resulting from workplace conditions, practices and accidents.
    - Personal accident. Includes first-party coverages, typically with fixed-benefit payments for death, disability and injury resulting from involuntary accidental events.
- *Specialty Lines.* Comprises Marine, Engineering, Agriculture, Special Risks, Aviation, Space, Nuclear Energy and Credit & Surety business.
    - *Marine.* Includes cover for property in transit (cargo), means of transportation (except aircraft and motor vehicles), offshore installations and valuables, as well as liabilities associated with marine risks and professions.
    - *Engineering.* Includes cover for construction and erection of objects during the construction or erection period and the insurance of machinery in operating plants.
    - *Agriculture.* Includes cover for crops, forestry, greenhouses, livestock, bloodstock and aquaculture against various perils such as drought, wind storm, diseases and loss of revenue.
    - *Special Risks.* Includes cover for a range of risks such as theft, fidelity, fraud, burglary, robbery for financial institutions and commercial risks, event cancellation and risks relating to art and antiques.
    - *Aviation.* Includes cover for hull, accident and liability losses from the manufacture, use or operation of aircraft and aviation facilities.
    - *Space.* Includes cover for property and liability losses from the use or operation of launch vehicles and satellites.
    - *Nuclear Energy.* Includes property and liability cover for atomic reactors, power stations or any other plant related to the production of atomic energy or its incidental processes.
    - *Credit & Surety.* Includes cover for financial losses sustained through the failure, for commercial reasons, of policyholders' clients to pay for goods or services supplied to them, and insurance covering sureties and guarantees issued to third parties for the fulfilment of contractual liabilities.

Underwriting Approach

Our underwriting approach is based on identification of risk and return factors at the individual transaction level, and portfolio monitoring and steering at the aggregate level.

We have developed our own modelling and costing tools and methodologies, which are constantly reviewed and adapted to the business conditions and to incorporate new knowledge. Underwriting metrics are defined and monitored centrally, within our "Underwriting Steering Values" framework, which compare current prices with benchmark risk adjusted profit margins and average price levels over the whole insurance cycle. The price adequacy of segments, and the accuracy of our costing, is reviewed regularly. In order to increase the objectivity of costing and reserving, apart from facultative business and less complex business, the underwriting role (including the costing of our products and transactions) is generally maintained separately from the selling price decisions and separately from reserving. The marketing role is undertaken by one person, who is supervised by a separate unit on a continuous basis. While these processes report independently from each other, we continue to maintain annual feedback processes, both locally and globally.

Underwriting authority is cascaded to individual underwriters (based on individual skills and experience) throughout the world in a defined manner, within a framework of global guidelines. Transaction sign-off and escalation are defined for all levels of the organization.

Europe, Middle East and Africa

We have operated throughout Europe since our founding in 1863. We conduct our Property & Casualty Reinsurance business in EMEA directly through SRZ and SRE (a Luxembourg-based entity) and their branches.

We maintain a strong position in our traditional markets in France, Germany, Italy, the Netherlands, Northern Europe, Spain, Switzerland and the United Kingdom. In recent years, we have also developed a strong position in Africa and a selective presence in the Middle East. In addition, we have a strong position in Central and Eastern Europe. We market our traditional reinsurance business to our European clients through a range of offices, including in London, Madrid, Munich, Paris, Rome and Zurich.

In our traditional business, several of our clients in Europe have been ceding business to us for over 100 years. We write business with all types of insurers. During the past few years, the European insurance market has further consolidated. We seek to respond to these developments in Europe by developing new insurance products (*e.g.,* in the field of business interruption insurance) and promote natural perils insurance to close the gap between economic and insured losses stemming from natural catastrophe events and further grow the insurance and reinsurance market. In addition we offer to our clients an integrated value proposition ranging from traditional commodity products to more complex, tailor-made programs. In our traditional lines, we seek to respond to premium rate pressure by focusing on efficiency in our distribution channels (including developing internet-based initiatives) and in increasing administrative efficiency. We have been altering our business mix, placing greater emphasis on non-proportional treaty business, though more than half of our business (based on gross premiums written) remains proportional treaty business.

Most of our traditional Property & Casualty Reinsurance business in Europe is written directly. However, a substantial portion of our business written in the London Market is obtained through reinsurance brokers. The "London Market" consists of U.K. and non-U.K. ceding companies placing business in London with reinsurers both in the United Kingdom and abroad. The London Market is particularly recognized as a worldwide centre for specialized risk underwriting. We write a significant volume of gross premiums annually in the London Market.

Our African clients range from large multi-line insurers to small niche companies. Our relationships with ceding companies in the region are long-standing but reinsurance brokers have become more important.

Americas

North America. Swiss Re America Corporation, our subsidiary based in Armonk, New York, has conducted reinsurance operations in the United States since 1910. For many years prior to that, reinsurance business in the United States was written through SRZ from Zurich. Swiss Re Canada, our Toronto-based subsidiary, has conducted reinsurance operations in Canada since 1953. Since 2009, all of our Canadian Property & Casualty Reinsurance business has been written by SRZ (Canadian Branch).

In the United States, we provide reinsurance treaty products through two principal business units: Direct and Broker. We have centralized our divisional underwriting function in Armonk, New York, Westlake Village, California, Schaumburg, Illinois and Toronto, Canada to better coordinate with marketing and control our underwriting activity.

The Direct treaty unit, which is principally based in Armonk, addresses the needs of regional companies as well as large U.S. and multinational insurance companies, serving clients regardless of the type of risk or location.

The Broker treaty unit consists principally of Swiss Re Underwriters Agency, formerly Underwriters Re, an underwriting agency that concentrates on products sold through the broker market channel. This business is organized around our offices in Westlake Village, California, Schaumburg, Illinois and a growing presence in New York City, New York. A significant portion of our Canadian treaty business comes to us through brokers.

We have a North American network of offices that provide facultative covers to our clients on a regional basis in Atlanta, Georgia, Chicago, Illinois, New York City, New York and Toronto, Canada. Our facultative cover market strategy includes using both direct and broker channels.

We write Property & Casualty business in the United States and Canada with all types of insurers. We maintain relationships with several hundred clients in North America and focus on selectively providing these clients with access to the resources of Swiss Re. Our approach is to create client-focused teams designed to provide value-added products and services, such as claims and accounting operational reviews, client underwriting reviews and technology assessments. We believe there is competitive advantage in providing these services in support of reinsurance programs, rather than performing them on a fee-for-service basis. We also offer risk financing products as well as tailor-made products to meet our clients' needs.

Latin America. We began writing reinsurance business in Latin America in 1911. We reinsure business in almost all markets and segments in the region, other than where we have chosen to scale back our exposure due to specific political or macroeconomic conditions (such as currently in Venezuela). In June 2012, Swiss Re obtained the authorization from SUSEP, the Brazilian insurance regulator, to establish a local reinsurer in Brazil. As a local reinsurer, we can participate fully in the Brazilian market and service a wider spectrum of clients and risks, while taking advantage of the market reserve and being an active player in future market developments. Apart from existing (and growing) traditional reinsurance business, the Latin American markets are characterized by significant new business opportunities stemming from large protection gaps in different lines of business (*e.g.,* underinsurance in natural catastrophe and motor insurance markets). Closing these gaps through innovative, often technology-based, solutions is one of our key strategic pillars in Latin America. In addition, regulatory changes, merger and acquisition activity, the region's inherent macroeconomic volatility combined with the growth of underlying portfolios are creating demand for customized and structured reinsurance solutions.

In recent years, these different business dynamics in the region's (emerging) markets have attracted more multinational insurance and international reinsurance companies. This has resulted in overcapacity in the market and increased competition. Our Latin American activities are supported by building leading positions in principal markets and strengthening our resources across locations, specifically Bogota (Colombia), Miami (Florida), Mexico City (Mexico), and Sao Paolo (Brazil) in addition to resources in Swiss Re's Armonk (New York) and Zurich (Switzerland) headquarters.

Asia

We have been one of the market leaders in Asia since 1914. Since early 2017, the headquarters of our Property & Casualty Asia division has been located in Singapore. We maintain local offices in the region comprising subsidiaries, branches, service companies or representative offices in Australia, China (Beijing, Hong Kong and Shanghai), Malaysia, Japan, South Korea and India. We continue to work with regulators in the region to obtain national reinsurance licenses in principal markets, as well as the most appropriate legal structures from which to deliver our capabilities to our local clients.

Our strategy in the region is to position ourselves as the reinsurer of choice to both mature and developing markets in Asia. Overall insurance and reinsurance growth in the region, excluding Japan and Australia, is expected, in percentage terms, to exceed that of the North American or European markets over the next decade. In the mature markets, such as Australia, New Zealand and Japan, we will continue to build on our strong market position and strengthen our relationships with our global clients. We also focus on high growth markets

in the region, particularly China. We are particularly active in emerging Asian markets where legal and societal changes have increased liability awareness, creating greater demand for liability insurance products. We believe that in these markets our worldwide experience and financial capabilities can be brought to bear, as Asia's emerging markets move closer to world regulatory best-practices, stronger economic cooperation and greater asset growth. All of our lines of business will continue to be deployed in Asia, and from a growth perspective, we anticipate further expansion of our position in property and certain casualty lines, as investment, infrastructure and building commitments increase in the region.

Life & Health Reinsurance

Our Life & Health Reinsurance business segment is comprised of life and health businesses through which we provide reinsurance to life and health insurance companies worldwide. With specialist knowledge of mortality, morbidity and longevity trends, we offer clients sustainable, viable solutions to their risk and capital management needs as well as support for product development.

The life and health businesses include reinsurance contracts for individual and group life, disability income, critical illness, medical expenses and annuity products. In 2018, on the basis of net premiums earned and fee income, life business represented 68% (principally mortality business), and health business represented 32%, of the total (largely with the same proportions of disability and critical illness business, with smaller amounts for medical business).

Our Life & Health Reinsurance business is comprised of the following principal lines:

Life reinsurance – which predominantly includes the following:

- Mortality – which provides a lump sum payment upon death of the life insured.
- Longevity – which provides a regular income for life.

Health reinsurance – which predominantly includes the following:

- Disability – which provides a regular income or a lump sum payable upon continued inability to work as a result of a long-term illness or disability.
- Critical illness – which provides a lump sum payment to policyholders upon diagnosis of a specified serious condition, such as heart attack, stroke or cancer.
- Medical – insurance against eligible cost of treatments for sickness or injury.

Mortality risk is the core business of the Life & Health Reinsurance business. Historically, mortality rates have shown significant improvement as medical treatments have substantially raised life expectancy, thereby reducing or delaying claims. Advances in medicine and research conducted by the business suggest that the overall trend is one of continued improvement, but that its extent will vary considerably according to age group and market.

A global trend towards privatizing health and welfare benefits has resulted in a growing recognition of the protection provided by health insurance. Health reinsurance is an important and significant line of business in EMEA and Asia, and we expect further growth to be driven by the Asian and U.S. markets.

As part of our de-risking activities, we have an extensive hedging program covering our existing run-off VA business.

Our primary market for longevity business is the United Kingdom. We are expanding this offering into other markets, as appropriate opportunities become available. Longevity risk is the risk to which a pension fund or life insurance company could be exposed as a result of higher-than-expected payout patterns. Increasing life expectancy trends among annuity policyholders and pensioners can result in payout levels that are higher than originally accounted for. As a result, as life expectancy increases (resulting in higher-than-expected benefits), strains are placed on such organizations obligated to pay retirement benefits. While demand from pension funds and life insurance companies has grown, private sector longevity risk cover has remained scarce.

Our goal is to differentiate ourselves as a provider of a broad range of risk management services, while controlling our administration costs. We provide support to our clients at every stage of their business cycle,

from start-up planning and launch through subsequent growth into mature businesses, to, where appropriate, the cessation of specific product lines or business units. Our purpose is to help clients protect their balance sheets, meet their risk management requirements and sustain growth. We also support our clients' capital requirements through innovative bespoke risk and capital solutions (*e.g.,* regulatory capital relief and in-force monetization and financing). We seek to capitalize on our global position, using local initiatives to respond to local market needs.

Americas

North America. Our U.S. Life & Health Reinsurance operations are centered in Armonk, New York and Fort Wayne, Indiana. Our Canadian Life & Health Reinsurance operations are headquartered in Toronto, Ontario, from which we also service the English-speaking Caribbean.

We are one of the largest life and health reinsurers in North America, with approximately $1.4 trillion of gross life reinsurance in force. We offer reinsurance in the United States, Canada and the English-speaking parts of the Caribbean for most forms of individual and group insurance risks. In North America, we generally offer reinsurance covers directly to clients through our own marketing staff.

United States. The largest portion of our U.S. operations (based on premiums) has historically been individual and group life reinsurance. Current economic conditions are expected to generate modest growth in individual life sales. Overall cession rates faced downward pressure in the first decade of the millennium and begun to stabilize since 2012. We expanded our offering to health products, mainly medical expense reinsurance, as we expect this to be an area of growth. In-force management continues to be a key part of our ongoing operations, pursuant to which we focus on enhancing the value of our existing business for both ourselves and our clients. In addition, we provide clients with solutions for the efficient management of their statutory capital. For example, we provide reinsurance for in-force portfolios, XXX/AXXX reserve financing and covers for regulatory closed blocks.

Canada and the Caribbean. We offer a variety of products in both Canada and the English-speaking parts of the Caribbean, including tailored capital solutions. Based on in-force volumes, we consistently rank in the top three (based on premiums) in major Canadian product lines, including individual life and critical illness. The focus of our operations in Canada and the Caribbean is consistent with our approach in the United States.

We expect the market for health, accumulation and longevity risk products will continue to expand in both the United States and Canada as the population ages. While current conditions in the financial markets have adversely affected growth in North America, we have developed expanded capabilities and offerings, such as group disability, and believe that we are well-positioned to capture new opportunities as they become available.

Latin America. The Latin American markets (which include the Spanish-speaking Caribbean) are in various stages of development. While we conduct business throughout Latin America, we focus our efforts on the high growth markets of Brazil and Mexico along with other selected countries such as Chile, Colombia and Panama.

The products we offer in many of these markets tend to be conventional individual and group life covers, although we are working towards expanding our product offering. We write medical reinsurance cover selectively in some of the faster growing markets where this line of business is especially of interest to primary carriers. Insurers are currently focusing their efforts on developing the middle market through the provision of simple and affordable health products, such as critical illness, surgical and hospital fixed benefits. Consequently, we also see the need for disability covers and critical illness reinsurance in some markets, and the possibility of expanding products to include accelerated benefits riders. We are also working on developing innovative and affordable simplified life underwriting solutions that are suited to digital and alternative distribution channels.

As in North America, we have in-force business associated with capital management solutions in Latin America. In the long-term, we expect growth of our reinsurance book to continue following growth in the primary markets; a more stable economic environment and the development of savings products will result in even stronger growth in the markets for life and health reinsurance.

Europe, Middle East and Africa

We provide life and health reinsurance solutions throughout EMEA, and we have a leading market position in several markets, including, but not limited to, Switzerland, the United Kingdom, Israel, Denmark, France,

Germany, Italy, the Netherlands, Poland, Russia and South Africa. We are also active in other Eastern European countries, where we have developed a strong market position, although current business volumes there are still small relative to Western Europe. We also see sub-Saharan Africa (other than South Africa) as a market with significant opportunities for growth.

We write life and health reinsurance in EMEA through a number of local offices including London, Zurich, Cape Town, Munich, Paris, Madrid, Copenhagen, Tel Aviv and Rome. Our principal products in EMEA are life, disability and critical illness, written on both group and individual bases, with medical business written in a few select markets. Reinsurance is offered via original terms, net level premium and risk premium arrangements, almost entirely on a proportional basis.

In Europe, we focus on specific areas of growth such as life protection products linked to loans and mortgages, products sold through banks and other financial institutions. We are working with clients to access new distribution channels and, consequently, previously uninsured lives.

The United Kingdom is our principal EMEA Life & Health Reinsurance market, based on premiums written. Our business includes mortality, critical illness and disability income protection business, though it also includes substantial longevity business. These U.K. primary markets, and consequentially the reinsurance markets, have been characterized for many years by price competition, which has increased pressure on profit margins. Our other key EMEA Life & Health Reinsurance markets for both in-force and new business are France, Germany, Israel, Italy and South Africa.

Most European countries have well-established life insurance companies providing both risk and savings products. Traditional savings products sold by life insurance companies usually incorporate an element of mortality risk for which reinsurance is sought. We believe the ageing of the European population is likely to increase the need for both savings and risk products but also longevity protection. The ageing population has led to an increasing latent demand for pension provision; however, increased uncertainty regarding the structure and value of pension products has stalled growth in this area. At the same time, governments throughout Europe are trying to find ways of reducing the burden of social programs on national budgets and are actively promoting the concept of individual responsibility for welfare-related issues. A notable example is the pension reform measures undertaken in Germany. Even without welfare reform, we expect that the demand for savings and protection products will continue to grow strongly as governments encourage individuals to manage their own future financial needs.

In addition to traditional lines, we also offer structured reinsurance products for clients seeking efficient capital management solutions. This area has been subject to increased focus and interest from insurance company management in recent years. We believe that continuing to develop and offer efficient capital management solutions will be a key driver in the continued growth of our business. As a result of the Solvency II regulations, we have developed and will continue to develop new reinsurance solutions as clients look to manage their Solvency II risk-sensitive capital requirement, known as Solvency Capital Requirement (SCR) and diversification benefits under Solvency II.

In general, we conduct our EMEA Life & Health Reinsurance business directly with clients, with an emphasis on building long-term relationships. Our clients are principally insurance companies or bancassurers.

Asia

Our Life & Health Reinsurance business in Asia operates out of Swiss Re Asia Pte. Ltd in Singapore, which has a branch in Seoul and SRZ branches in Beijing, Hong Kong, Kuala Lumpur, Mumbai and Tokyo, and has a service company in Bangalore. We write business from markets across the region, with material portfolios in the developed markets such as Japan and Korea. China has shown material growth in recent years and there continues to be relative investment in China as well as other high growth markets (such as India, where we believe there to be significant long-term opportunities for growth in a number of areas).

Our existing Life & Health Reinsurance portfolio has traditionally been dominated by mortality risk, and is now more balanced, driven by new business growth being increasingly focused on health (including medical) business lines. This follows market trends, which we expect to continue, with growth spread across all markets in the region. Demand for traditional and structured reinsurance is expected to continue to increase in the region as insurers focus more attention at this time on protection business and capital efficiency due to low investment

yields and newly implemented capital regimes. This was demonstrated by several large transactions that closed in 2018 across the region.

We continue to strongly promote our proposition of financial strength combined with specialized knowledge in the area of product development, risk analysis and in designing tailor-made reinsurance solutions to help clients manage risk and meet their capital requirements.

In support of the increased demand for health reinsurance, over the past four years we have invested in infrastructure to support ongoing management of this line of business.

Australia/New Zealand

Our Life & Health Reinsurance business in Australia and New Zealand is written through Swiss Re Life & Health Australia Ltd.

We write reinsurance business and also issue policies directly under our life license. The reinsurance portfolio of business contains both group risk and individual risk business. In Australia, there are significant amounts of mortality and disability protection offered within superannuation (pension) funds. While our group risk business exposures are concentrated in this space, increased competition from offshore reinsurers has led to softening market conditions. We will continue to serve our group risk business while diversifying our portfolio. We successfully increased the amount of individual risk (adviser) business in our portfolio over the last four years in order to further diversify the portfolio and benefited from the completion of several significant structured reinsurance transactions, with full risk transfers in 2015, 2016, 2017 and 2018 that materially increased our individual risk portfolio across all lines of business. The volume of our individual direct business within the portfolio has also increased in recent years and we believe we are well placed to grow this segment further over the coming years to capitalize on the transformational changes in the life market in Australia and New Zealand. To maximize its growth potential, our individual direct business will be transitioning to Life Capital in 2019. Given the size of the superannuation (pensions) market (with assets valued at approximately $2 trillion as of June 30, 2018), and imminent legislative changes surrounding retirement provisions, we believe that we are well placed to work with our clients to develop new propositions to meet the needs of aged and retiring Australians and New Zealanders.

Reinsurance Clients and Marketing

We market our products on a worldwide basis, under the "Swiss Re" brand name. Our marketing strategy is client-focused rather than product-focused. In this regard, we have sought to establish a local presence in growing markets to better meet the needs of our clients, by providing a reliable and integrated resource for their reinsurance needs. We have a dedicated unit for global clients that enables us to concentrate the particular expertise needed to serve the major international insurance groups. We organize our professional resources using a client management team approach in order to deliver our global expertise to meet our clients' needs. In order to achieve this, we have established integrated origination teams, which we believe will enable us to develop strong origination leadership and to provide our products and services to a wider range of customers. We also provide a significant amount of technical advice and assistance to our clients as a means of enhancing our relationship with them and we take the lead in developing comprehensive reinsurance solutions to meet their needs.

For our Property & Casualty Reinsurance business, we conduct business with our clients both through direct relationships and through brokers. For our Life & Health Reinsurance business we primarily conduct business with our clients through direct relationships.

We believe that we have a well-developed client base, and that we are not dependent on any single client, group of clients or line of business. We do not believe that the loss of any single client would have a material adverse effect on our results of operations or financial condition.

Reinsurance Claims Management

We undertake reinsurance claims management through Property & Casualty Business Management and Life & Health Business Management. Life & Health Business Management was established as part of the series of management actions to improve the business performance of Life & Health Reinsurance and was tasked with improving the value of the in-force book with a focus, among other things, on claims. This development was

mirrored on the Property & Casualty Reinsurance side by the formation of Property & Casualty Business Management.

We aim to provide effective claims management and adhere to an overall claims philosophy, which reflects our expertise in claims management, follows industry best practices and complies with applicable prevailing legislation and case law.

We are primarily responsible for the adjudication of our clients' claims. We normally settle individually notified claims on the basis of the notification provided by the client after verification that reinsurance coverage exists and that the loss quantum is correct. In addition, we selectively conduct investigations in our Life & Health Reinsurance business. Our technical accounting and claims operations personnel assist with the administration of our claims and, pursuant to agreed segmentation guidelines, selectively manage those individual claims that have been segmented and reported to us using group-wide guidelines.

In addition to administering reported claims and conferring with clients on claim matters, our reinsurance claims personnel conduct reviews of claims experience with our ceding companies as well as audits of specific claims or portfolios and the claims procedures in general at the offices of ceding companies. We generally monitor whether the ceding company uses appropriate adjusting techniques, reserves appropriately, has sufficient staff and follows proper claims processing procedures. In addition we provide a "deep-dive"/benchmarking service supporting our clients in managing selected in-force portfolios and claims payment. The main objective is to support a more effective claims management at our clients.

We undertake regional claims portfolio reviews on a regular basis in order to highlight trends and developments and to share best practices among our claims teams.

We have implemented a formal feedback process, which allows us to share key observations with internal stakeholders, including the underwriting community. We also utilize this information to support and develop training programs for our clients.

ASSET MANAGEMENT

Swiss Re Group Asset Management manages the assets generated through our reinsurance activities. Swiss Re Group Asset Management seeks to ensure, through ALM, that our investment portfolio is managed according to the benchmark derived from our reinsurance and corporate liabilities, defined by key rate durations, currency and legal entity constraints where applicable. Furthermore, Swiss Re Group Asset Management also seeks to generate, on a limited and selective basis, additional economic value, subject to rigorous risk limits and oversight. We believe that this allows us to generate attractive and sustainable risk-adjusted economic investment returns while navigating volatile financial markets. The Swiss Re Group Asset Management mandate involves the development and implementation of our strategic asset allocation. Swiss Re has outsourced certain parts of our investment management activities to external parties and has established an oversight framework that it seeks to consistently apply across asset classes to oversee external investment mandates. Actual performance and risk taking are rigorously monitored against these external mandates in the same manner as for the assets managed internally.

To manage investments prudently, Swiss Re Group Asset Management divides its investment activities into three layers: a 'risk-free' return, a market return, and an active risk-taking return. The 'risk-free' return is derived from the Minimum Risk Benchmark portfolio, which is defined to match as closely as possible the cash flow characteristics of expected future claims and benefits. The market return is generated by strategic asset allocation decisions across various broad asset classes depending on the macroeconomic outlook and financial market environment, which are closely monitored as part of our investment strategy. Active risk-taking return can arise through identifying and profiting from market opportunities. The proportion of market return and active return to overall investment return depends on the risk capacity and appetite of Swiss Re. Risk limits for investment activities are defined and monitored across all three layers. The Swiss Re Group's independent Swiss Re Group Risk Management function, which reports directly to Swiss Re Group Chief Executive Officer, is responsible for ensuring that the delegated limits are adhered to.

As part of Swiss Re's integrated investment process, we have comprehensive risk-taking and governance processes in place, including a risk limit framework to reflect our stress scenarios, rigid oversight functions and advanced liquidity management practices. These processes focus on infrastructure and data quality, reporting, performance benchmarking and modelling of risk under the Swiss Re Group Risk Management framework.

From time to time, Swiss Re maintains an active hedging program to manage duration, credit spreads and our equity exposures on a more short-term basis. The hedging program's ultimate purpose is to protect Swiss Re's capital.

Swiss Re Group Asset Management supports the Business Units, including the Reinsurance Business Unit, with the development of customized investment portfolios reflecting their objectives and the unique characteristics, under a consistent Swiss Re Group-wide top-down investment strategy based on macroeconomic landscape analysis. Furthermore, ESG criteria are taken into account to actively manage sustainability-related risks of underlying assets.

Swiss Re's group-wide strategic asset allocation is endorsed by the Swiss Re Group EC and approved by the SRL Board of Directors. The Swiss Re Group CIO is responsible for its implementation. He is also responsible for the investment result of the Swiss Re Group, based on the Swiss Re Group's and Business Units' investment plans. In addition, the Swiss Re Group CIO retains responsibility for decisions on investment tactics within the approved ranges of the strategic asset allocation and subject to defined risk limits. The Swiss Re Group CIO oversees the Swiss Re Group Asset Management division.

Swiss Re has a dedicated in-house portfolio management team that manages substantially all of our government bonds and agency security portfolio, which constitutes a significant proportion of Swiss Re Group Asset Management's total investment portfolio (excluding unit-linked and with-profit business). They work closely together with the office of the Swiss Re Group CIO, to ensure that Swiss Re Group Asset Management matches the liabilities effectively while generating an attractive risk-adjusted economic investment return.

The Swiss Re Group's credit products, equity securities, private debt and private equity investments, as well as a portion of our real estate portfolio, are managed externally by specialized investment managers. Before any appointment of an external manager, we undertake a thorough due diligence exercise to confirm the manager's compliance with our investment principles. This includes considerations in investment decisions and monitoring, the operational set-up, as well as a review of the managers' commitment to responsible investing. After being mandated, the individual performance of each manager is monitored in line with investment guidelines, and each manager is required to report regularly on its investment activities.

UNDERWRITING AND ITS GOVERNANCE

Accepting risk from clients is our core business activity. To prudently manage underwriting, we rely on strong underwriting know-how and processes, matched by robust governance and supported by portfolio steering at the Swiss Re Group level.

Underwriting

Our underwriting is focused on cycle management, underwriting discipline and the achievement of attractive risk-adjusted returns. We seek to accumulate a vast amount of knowledge in all lines and markets, which supports us in the quantification of future losses, development and sale of our products and in setting appropriate premiums under all market conditions.

The Reinsurance Business Unit, along with Swiss Re's other Business Units perform day-to-day transactional underwriting with the objective of understanding risks, objectively estimating costs associated with the acceptance of risks and achieving an appropriate return for risks taken. Estimated costs include capital costs, operating expenses and loss costs, which are quantified considering the quality of risk, loss history and current and future exposure. To determine the technical price of coverage, capital costs and operating expenses are added to the expected loss costs. The final sale price of a piece of business is determined by the Business Units, provided that they adhere to the underwriting principles and allocated underwriting capacity, as described below. Swiss Re Group Underwriting provides the Business Units with insights into markets and risks and facilitates their underwriting activities by providing proprietary tools and models.

Our capital base, underwriting experience and willingness to provide substantial capacity provide us with opportunities to take the lead role in underwriting reinsurance contracts. We believe that being a lead underwriter is an important factor in achieving long-term success in the reinsurance market. Reinsurers that lead treaties have greater access to preferred business and are more likely to obtain preferential terms or write business on a private basis, i.e., without the participation of other reinsurers.

Governance

Swiss Re believes that its governance arrangements are set up to provide the Business Units with as much flexibility as possible to perform day-to-day transactional underwriting, while simultaneously ensuring that our risk exposures are carefully managed.

The SRL Board of Directors approves the Swiss Re Group's risk tolerance framework, the capital allocation plan for underwriting, the entry into new business activities and the exit from existing business activities.

The Swiss Re Group Finance and Risk Committee of the SRL Board of Directors reviews our risk and capacity limits, as approved by the Swiss Re Group EC, and their usage across the Swiss Re Group. It also reviews the most important risk exposures in all major risk categories as well as new products. In particular, the Swiss Re Group Finance and Risk Committee periodically reviews the Swiss Re Group's risk appetite, annually reviews critical underwriting principles and authorities (which are documented in the Swiss Re Group Underwriting Standards) and their implementation, and is informed on (re)insurance transactions in excess of the underwriting authorities of the Business Units.

The Swiss Re Group EC has a central role in the governance of underwriting, including in respect of Property & Casualty Reinsurance, Life & Health Reinsurance, as well as financial market transactions with (re)insurance risk factors. It determines the general principles for underwriting and our risk tolerance framework. It owns the EVM framework and risk capital framework, which serve as the foundation for costing and for risk quantification and aggregation. It sets the risk appetite for all major risk classes, grants transactional underwriting capacity and allocates accumulation limits to the Business Units. So as to control and manage exposures, we typically limit our underwriting capacity on a per claim, per event or annual basis. The Swiss Re Group EC holds decision-making authority over large and unusual transactions and approves new products.

The Swiss Re Group Chief Underwriting Officer heads the Swiss Re Group Underwriting function and is responsible for steering capital to the most attractive areas in underwriting. The Swiss Re Group Chief Underwriting Officer is tasked with focusing on themes that are of strategic importance for our underwriting activities, ensuring a high degree of costing accuracy, underwriting quality and outperformance of our underwriting portfolio, providing guidance that improves both capital allocation and risk selection, defining our risk appetite for key underwriting exposures and setting underwriting standards on a group level, as well as monitoring adherence to such standards.

CATASTROPHE RISK

We are exposed to claims affecting multiple insureds at the same time, arising out of the occurrence of natural perils, such as an earthquake or hurricane, or man-made events, such as terrorist attacks. The occurrence of any such catastrophes could generate insured losses in one or many of our reinsurance treaties or facultative contracts in one or more lines of business. See generally "Risk Factors – Risks Relating to our Operations – Catastrophic events expose us to the risk of unexpected large losses."

Our Catastrophe Perils unit evaluates the frequency and severity of catastrophes and estimates our potential resulting loss exposure. Over 30 catastrophe risk specialists in the United States, Europe and Asia are employed in developing our proprietary view of risk worldwide and making it available via a proprietary risk-modelling platform. We prepare formal reports on our catastrophe exposure, quarterly for peak perils and annually on market and line of business bases. We also review the coverage and pricing situation half-yearly in our most important markets. We use these reports, together with other internal data, to evaluate our group-wide risk exposures and capital allocation.

With our integrated group-wide risk model, we seek to quantify our total exposure through an aggregation process for all of our acceptances to produce a loss frequency curve from which we can derive a single annual aggregate loss distribution covering the full spectrum of losses (that is, all possible combinations of adverse and unexpected large losses) up to one-in-10,000 year events. We also consider the diversification effect from other than natural catastrophe exposures for capital calculation and allocation purposes.

For capacity allocation and deployment purposes, we monitor our accumulated exposure to catastrophe losses and quantify our exposure in terms of the expected maximum loss or shortfall (also known as "tail VaR" – see generally "Swiss Re Group Risk and Capital Management"). Shortfall is calculated based on our portfolio of exposures, taking into account contract limits and the statistical distribution of losses caused by a catastrophe

such as a hurricane or earthquake occurring within a given financial reporting period in a broad, contiguous geographic area. We estimate that our largest group-wide shortfalls for earthquake risks are located in California, Japan and the New Madrid fault line in central United States. We estimate that our largest shortfalls for windstorm risks, including hurricanes and tropical cyclones, are located in the United States and in Europe, followed by typhoon risk in Japan.

RESERVES

Property & Casualty Reinsurance

In the case of a reinsurer, significant periods of time may elapse between the occurrence of an insured loss giving rise to a claim, the reporting of the claim to the ceding company and the reinsurer and the ceding company's payment of that claim and subsequent payments to the ceding company from the reinsurer. To recognize liabilities for unpaid claims, claim adjustment expenses and future policy benefits, reinsurers establish reserves, which are balance sheet liabilities representing estimates of future amounts needed to pay reported and not yet reported claims and related expenses arising from insured losses that have already occurred.

Reserves are estimates that involve actuarial and statistical projections of the expected cost of the ultimate settlement and administration of claims. These estimates are based on facts and circumstances then known, predictions of future developments, estimates of future trends in claims frequency and severity and other variable factors such as inflation. For some types of claims, most significantly asbestos-related, environmental pollution and health hazard claims and certain liability claims (namely, our long-tail exposures), it has been necessary, and may over time continue to be necessary, to revise estimated potential claims exposure and, therefore, the related claims reserves. Consequently, actual claims, benefits and related expenses ultimately paid may differ from estimates reflected in the reserves in our consolidated financial statements.

We typically establish our case reserves for reported but not yet settled claims under proportional treaties by taking into account reserving methodologies and practices adopted on a group-wide basis. Generally, claims personnel at a ceding company establish a case reserve for the estimated amount of the ultimate payment for a reported claim. The estimate by the ceding company is based on the reserving practices and experience and knowledge of personnel at the ceding company regarding the nature and value of the specific types of claims. We generally establish reserve levels using reports and individual case estimates received from ceding companies.

For reinsurers, in the case of facultative and non-proportional business, we generally evaluate the ceding company's reserves taking into consideration coverage, liability, severity of injury or damage, jurisdiction, an assessment of the ceding company's ability to evaluate and handle the claims and the amount of reserves recommended by the ceding company. If our own estimate of the ultimate cost of a particular claim is materially different from the reserve established by the ceding company, we adjust that case reserve accordingly. Such additional case reserves (positive or negative) are established either per treaty or per facultative acceptance.

We also establish claims reserves for incurred but not yet reported ("**IBNR**") claims to provide for payments for incurred claims that have not yet been reported to an insurer or reinsurer. In calculating our IBNR reserves, we generally use accepted actuarial reserving techniques that take into account quantitative loss experience data, together with other factors, including qualitative factors, that are relevant to the risks in question, such as changes in the volume of business written, the contract terms and conditions, the mix of business, the processing of claims and the prospective level of inflation that can be expected to affect our liability for claims over time. IBNR reserves are grouped either by accident year or by underwriting year and our internal actuaries review our reserving assumptions on a quarterly basis.

In total, we maintain loss and loss adjustment expense reserves to cover our estimated liability for both reported and unreported claims at a level that represents management's best estimate of ultimate loss and loss adjustment expenses.

Although we believe that reserves for unpaid claims are adequate in the aggregate, uncertainties arise when estimating the ultimate future amounts that may be needed for long tail exposures. These uncertainties exist in part due to inconsistent decisions reached in court cases in various jurisdictions, including decisions about:

- the existence of insurance coverage;

- which underlying policies provide the coverage;
- whether the release of contaminants is one "occurrence" or multiple occurrences for determination of applicable coverage/policy limits; and
- whether an insurer has a duty to defend.

Since the early 1980s, underwriting results from property and casualty reinsurance business relating to the United States have been adversely affected by claims developing from asbestos-related coverage exposures. The majority of these claims allege bodily injury resulting from exposure to asbestos products. A lesser amount of claims allege damage to buildings resulting from the presence of asbestos. We monitor developments in this area and establish reserves for reported claims as well as an estimate for unreported claims and claim adjustment expenses. We review and update our asbestos reserves quarterly. We believe uncertainties exist in estimates of the ultimate future amounts that may be payable for unreported asbestos-related claims. These uncertainties include estimations of the number and value of claims that may be reported, court decisions affecting the liability, and the maximum value of asbestos-related exposures written by our clients during expired coverage periods. As a result, our obligations for claims payments and claims settlement charges also include obligations for long-latent injury claims arising out of policies written prior to 1986, as well as out of such business acquired subsequently through reinsurance arrangements to other companies in the Guarantor Group, in particular in the area of U.S. asbestos and environmental liability.

In addition to the uncertainties described above in estimating asbestos reserves, the identification of asbestos-related claims might be difficult for older exposures. This is why our claims department reviews the coding of such claims from time to time in order to improve the overall data quality. As of December 31, 2018, we carried net reserves for U.S. asbestos and environmental liabilities of $1.6 billion and, during 2018, we incurred net losses of $114 million and paid net against these liabilities of $100 million. As of December 31, 2017, we carried net reserves for U.S. asbestos and environmental liabilities of $1.6 billion and, during 2017, we incurred net losses of $42 million and paid net against these liabilities of $180 million.

An industry measure that is often used to estimate reserve adequacy for asbestos-related and environmental pollution claims is the three-year survival ratio, calculated as the total net provision held at the end of a period divided by the average net claims paid over the previous three years. The survival ratio represents the number of years it would take for a company to exhaust its reserves based on the current level of claims payments. We calculate that our three-year survival ratio was 13.5 years as of December 31, 2018, (12.3 years as of December 31, 2017), based on our best estimates.

Life & Health Reinsurance

Life & Health Reinsurance reserves are established in respect of unearned premiums less deferred acquisition costs, case reserves, IBNR, profit commission reserves, disabled life reserves, annuity reserves, present value of future profits, and future policy reserves.

Reserves for future policy benefits for our Life & Health Reinsurance business are calculated (as provided for under U.S. GAAP) using locked-in assumptions, established at the inception of each portfolio, for mortality, morbidity, persistency and investment income. The locked-in assumptions contain margins and can only be changed if actual emerging experience for our Life & Health Reinsurance business as a whole is worse than the locked-in assumptions (including the margins).

The liabilities for future policy benefits for individual risks or classes of business may be greater or less than those established by ceding companies due to the use of different mortality and other assumptions. For some of our portfolios, however, the cedent data is not itemized by policy, and in those cases considerable reliance is placed on the cedent calculated reserves. Reserves for policy claims and benefits include both mortality and morbidity claims in the process of settlement and claims that have been IBNR. Claims reserves are calculated using the latest assumptions available at the time of valuation. Actual experience may differ from assumed experience and, consequently, may affect our results of operations for a period, especially for disability business where the claims reserve reflects payments over a long period of time and is based on assumptions regarding morbidity and investment income.

In addition to our general Life & Health Reinsurance business reserves, we carry liabilities for exposure related to our past VA business, which is in run-off. A VA product is a hybrid insurance and investment product. The guaranteed minimum death benefit features generate both biometric risk exposure and financial market risk

exposure (equity, interest rate, volatility risk). In addition VA is subject to policy lapse and withdrawal risk. The majority of our VA liabilities are carried at fair value consisting of the baseline average present value of the best estimate cash flows, adjusted for a risk margin, calculated by stochastic methods.

We have significant exposure to mortality and morbidity risk through our Life & Health Reinsurance business covers. Consequently, an influenza pandemic is a material risk as it has the potential to impact all markets across the world. In the past one hundred years, there have been three influenza pandemics, with greatly varying mortality rates, typically among the more vulnerable and concentrated in the very young and old. The worst of these three pandemics caused an estimated 20-50 million deaths in 1918-1919. We believe that a pandemic, whether influenza or another infectious disease, has the potential to affect a significant percentage of the world's population, causing a high level of sickness and an increase in mortality rates. The outbreak of the Ebola virus in 2014 raised questions about the global community's general preparedness to respond to more serious epidemics or pandemics in the future.

Prior-year development

Net claims development on prior years was $341 million during 2018.

Non-life claims development during 2018 on prior years includes favorable development on Property and Specialty, partially offset by adverse development on Casualty. The favorable development on Property and Specialty was mainly related to the natural catastrophe events in North America and wildfires in California that occurred in 2017. Casualty includes adverse development for motor and liability lines of business.

For the life and health business, the adverse claims development on prior year business was across a number of lines of business, in particular the individual life and disability portfolios in the United States and the group disability portfolio in Australia. This was partially offset by positive experience in other regions, including Continental Europe and Asia. Claims development related to prior years also includes an element of interest accretion for unpaid claims reported at the estimated present value.

Net claims development on prior years was $813 million during 2017.

Non-life claims development during 2017 on prior years continued to be driven by favorable experience on most lines of business. Property was mainly driven by positive claims development across the most recent accident years. Casualty includes adverse development on motor business. Within Specialty, the main reserve releases came from marine and engineering business lines, partially offset by adverse credit and surety experience.

For life and health lines of business, claims development on prior year business was driven by adverse claim experience across a number of lines of business and geographies. In particular, the U.K. critical illness and U.S. life portfolios strengthened reserves following adverse trends. This was partially offset by positive experience in Continental Europe, in particular in Germany disability and life portfolios. Claims development related to prior years also includes an element of interest accretion for unpaid claims reported at the estimated present value.

The following table sets forth a summary of prior-year net claims and claim adjustment expenses development by lines of business for the periods indicated.

	Year ended December 31,	
	2017	**2018**
	(in $ millions) *(audited)*	
Lines of business:		
Property	(588)	(437)
Casualty	(187)	241
Specialty	(234)	(288)
Life and health	196	143
Total	**(813)**	**(341)**

Unpaid claims and claim adjustment expenses. The following table sets forth a reconciliation of the opening and closing reserve balances for unpaid claims and claim adjustment expenses for the periods indicated.

	Year ended December 31,	
	2017	2018
	(in $ millions)	
	(audited)	
Balance as of January 1	51,073	58,221
Reinsurance recoverable	(2,837)	(4,017)
Deferred expense on retroactive insurance	(211)	(240)
Effect of change in group structure	(281)	-
Net balance as of January 1	**47,744**	**53,964**
Incurred related to:		
Current year	22,824	21,809
Prior year	(813)	(341)
Amortization of deferred expense on retroactive reinsurance and impact of commutations	(5)	(41)
Total incurred	**22,006**	**21,427**
Paid related to:		
Current year	(5,971)	(6,421)
Prior year	(12,362)	(13,386)
Total paid	**(18,333)**	**(19,807)**
Foreign exchange	2,496	(1,598)
Effect of acquisitions, disposals, new retroactive reinsurance and other items	51	724
Net balance as of December 31	**53,964**	**54,710**
Reinsurance recoverable	4,017	3,773
Deferred expense on retroactive reinsurance	240	169
Balance as of December 31	**58,221**	**58,652**

We generally do not discount liabilities arising from prospective property and casualty insurance and reinsurance contracts, including liabilities which are discounted for U.S. statutory reporting purposes. Liabilities arising from property and casualty insurance and reinsurance contracts acquired in a business combination are initially recognized at fair value in accordance with the purchase method of accounting.

See note 5 to the Guarantor Group Financial Statements for additional information on prior year development and a reconciliation of the opening and closing reserve balances for non-life and life and health unpaid claims and claim adjustment expenses at the Guarantor Group level. As part of the disclosure in note 5, we include, following the introduction of U.S. GAAP disclosure requirements for short-duration contracts, loss development triangles on an accident year basis. We also continue our historical practice of publicly disclosing loss ratio development triangles on an underwriting year basis on our website. The accident year triangles present claims information according to the calendar year in which a claim event (the date of loss) falls (net of internal and external retrocession), while the underwriting year triangles present claims information according to the calendar year in which the original policy or reinsurance contract was incepted (gross of external retrocession). In addition, the accident year triangles reflect paid and incurred claims and cover traditional and non-traditional business for 10 accident years for Reinsurance, while the underwriting year triangles reflect paid and reported loss ratios and cover traditional Property & Casualty Reinsurance business for 16 underwriting years. The underwriting year triangles are the basis for deriving best estimate reserves. Although accident year reporting is fairly standard across the insurance market, it is not always well-defined for reinsurers, since the reinsurer depends on information provided by its cedants, which often does not include details on individual claims. For these reasons, accident year information requires approximation.

Adequacy of Reserves

We believe that our total reserves as of December 31, 2018 are adequate based on prudent expectations of the future. Our reserves may, nevertheless, prove to be inadequate to cover our actual claims and benefits experience if experience is unfavorable. To the extent reserves are insufficient to cover actual claims, claim

adjustment expenses or future policy benefits, we would have to add to these reserves and incur a charge to our earnings.

RETROCESSION AND OTHER RISK TRANSFER

Some reinsurers purchase reinsurance to cover a certain part of their own risk exposure. The purchase of reinsurance by reinsurers is referred to as retrocession. These reinsurance companies cede risks under retrocession agreements for reasons similar to those that cause insurers to purchase reinsurance, namely to reduce net liability on individual risks, to protect against catastrophic claims, to improve solvency ratios and to obtain additional underwriting capacity.

In general, our retrocession and risk transfer initiatives are aimed at accomplishing one or more of the following important strategic goals: to keep net exposure within accepted limits to protect the balance sheet against extreme events, to avoid disproportionate high losses, and to increase financial flexibility to free up trapped assets. We use retrocession arrangements to increase our aggregate underwriting capacity, diversify our risk and reduce the risk of catastrophic loss on reinsurance assumed. We buy such protection in the capital markets and in traditional retrocession markets through a range of products, such as sidecars, collateralized reinsurance, traditional retrocession, ILS and industry loss warranties. The ceding of risks to retrocessionaires does not relieve us of our obligations to our ceding companies.

We aim to minimize the counterparty and credit risk of our hedging instruments by using sidecar and other instruments, which are typically collateralized, and by predominantly selecting counterparties with superior financial strength. We have selectively placed hedges, mainly for U.S. hurricane and other peak natural catastrophe scenarios.

EMPLOYEES

As of December 31, 2017 and 2018, Swiss Re employed 14,485 and 14,493 regular staff, respectively. By geographic region Swiss Re's employees were distributed, as of December 31, 2018, as follows: Europe (including South Africa), 60.9%; Americas, 24.2%; and Asia Pacific, 14.9%.

We believe that our employee relations are good. We promote the development of internal talent through various educational and training programs that we offer, including the implementation of LearningOne, an online learning platform that is designed to modernize learning and development of our employees.

Swiss Re is committed to having a compensation framework that is balanced and performance-oriented, and which aligns the interests of both shareholders and employees. The aim is to provide compensation that is competitive in local labour markets and to ensure that employees focus on delivering outstanding results while supporting appropriate and controlled risk-taking. For most employees, total compensation comprises base salary and an annual performance incentive that is linked to both business/company and individual performance. Swiss Re has also adopted additional incentive programs that reflect the longer-term nature of its business and are designed to align shareholder and employee interests more closely. Employee compensation is generally complemented by competitive pension plans and other employee benefits, including health benefits and financial protection in case of ill-health. Furthermore, Swiss Re supports employees in accumulating retirement benefits to supplement any state provisions.

BUSINESS ENVIRONMENT AND COMPETITION

The reinsurance business is competitive; however, there are barriers to entry, including regulatory and capital considerations. We compete with other reinsurers based on many factors, primarily:

- expertise, reputation, experience and qualifications of employees;
- local presence;
- geographic scope of the reinsurance business conducted;
- client relationships;
- financial strength;
- products and services offered;

- contract terms and conditions; and
- efficiency of claims payment.

Reinsurance companies have sought to expand their existing markets, obtain critical mass in new markets and further diversify risk.

At the same time, consolidation in the worldwide insurance industry has created a smaller group of larger ceding companies that are retaining an increasing proportion of their business, rationalizing reinsurance procurement policies (particularly for recurring ("flow") business placed in the open market) through central purchasing departments. They are demonstrating a greater sensitivity to counterparty risk in respect of their reinsurers, particularly in the property and casualty market, and are limiting where possible that risk through concentration limits, which in turn may impact our ability to increase market share. In addition, consolidation in the reinsurance industry may continue as a result of both excess capital in the industry and U.S. tax reforms, where foreign-based reinsurers have historically been able to operate in the United States and repatriate their profits to affiliates overseas without having to pay U.S. federal income tax.

In the property and casualty market, factors such as general trends towards globalization, a heightened customer preference for the largest and best capitalized reinsurers and the emergence of the capital markets as an additional source of risk-bearing capacity, have resulted in consolidation and emphasis on the financial strength of reinsurers. Over the past decade, brokers have played an increasingly significant role in the property and casualty market, particularly in the United States.

The life and health reinsurance market is also highly concentrated. Based on information available for 2017, we estimate that, based on premiums written, the largest five reinsurers represent approximately 70% of the life and health reinsurance market. Brokers play a far less significant role in the life and health market than in the property and casualty market, although they continue to try to penetrate these markets.

Our largest competitors (by marketing name), both locally and internationally, measured by premiums written, are:

- Munich Re;
- Berkshire Hathaway, including The Berkshire Hathaway Reinsurance Group and General Re;
- Hannover Re;
- SCOR;
- Lloyd's; and
- RGA (Reinsurance Group of America) (in the life and health sector).

Since the late 1990s, financial investors, largely pension funds, mutual funds, hedge funds, sovereign wealth funds and high net worth individuals, have provided, through a range of risk transfer vehicles, capital into natural catastrophe reinsurance. Alternative capacity takes various forms, including the collateralized model (which involves new entrants) and the float model (which involves investment by insurance companies in new platforms). From a low base in the 1990s centered around catastrophe bonds, alternative capacity has experienced exponential growth, driven mainly by the growth of collateralized reinsurance (which is now the largest source of alternative capital), as well as low returns in fixed income markets and the benefits to capital providers of diversification given the lack of correlation between insurance risks and traditional capital markets instruments. While the growth of alternative capital has largely been confined to peak risks, especially U.S. hurricane, overcapitalization (including due to the growth in alternative capital) continues to put increasing pressure on profit margins. We also take advantage of alternative capacity by ceding a portion of our peak risks through sidecars, collateralized reinsurance and ILS into the capital markets.

The availability of alternative capital to cover natural catastrophe risks remains high in spite of the levels of natural catastrophe losses experienced in 2017 and 2018. The amount of alternative capital, estimated at $90-$100 billion by the end of 2018, has more than quadrupled since 2010, and is currently supporting an estimated annual premium volume of around $5 billion. In contrast, global capital for the traditional reinsurance segment, which provides cover for all types of life and non-life insurance risks, was around $340 billion, based on an annual premium volume of $270 billion. We expect alternative capital to evolve further, although, at present, we

expect that alternative capital will remain focused on peak natural catastrophe business due to the need to collateralize catastrophe limits.

As market participants continue to seek out new ways to deploy excess capital in the face of the high supply/low demand imbalance, in large part driven by alternative capital, at a time of low interest rates and a general unwillingness to accede to yet lower process or looser terms and conditions, the recent trends of consolidation in the property and casualty reinsurance industry in a bid to achieve diversification and scale are expected to continue.

PATENTS AND LICENSES

We are not, in any material respect, dependent on any patents or any third party intellectual property rights. For a discussion of our regulatory licenses and permissions, see "Regulation."

PROPERTIES

Swiss Re's global headquarters are located in Zurich, Switzerland and include an operations centre in Adliswil and a training and management development centre in Rüschlikon, Switzerland. Our U.S. reinsurance operations are headquartered in Armonk. As of December 31, 2018, Swiss Re owned or leased office space in more than 70 cities in over 25 countries around the world. We believe that these facilities are adequate for our present needs in all material respects. Office space acquired in connection with acquisitions is integrated into our existing operations or disposed of as needed. Swiss Re holds other properties for investment purposes.

Swiss Re's principal properties include:

Location	Leased/owned	Type of facility	Total Area (m^2)
Switzerland			
Zurich			
Am Eschenpark	Owned	Apartments	10,508
Escher-/Lavaterhaus	Owned	Offices	10,204
Giesshübelstr. 30	Owned	Offices	12,355
Gotthardstr. 35/43	Owned	Offices	11,281
Hardturmpark	Owned	Apartments	12,256
Mythenquai 20-28 (Mythenschloss)	Owned	Offices/ Apartments	22,901
Mythenquai 50 (Swiss Re Next)	Owned	Offices	30,963
Mythenquai 60 (Altbau)	Owned	Offices	11,940
Adliswil			
Soodring 6	Leased	Offices	30,201
Soodring 33	Leased	Offices	31,319
Rüschlikon			
Gheistr. 37 (Centre for Global Dialogue)	Owned	Offices	14,784
United Kingdom			
London			
30 St Mary Axe	Leased	Offices	9,733
Coalville			
Bardon Logistics, Bardon	Owned	Industrial	29,505
Southampton			
Southampton Logistics, Southampton	Owned	Industrial	19,828
United States			
New York			
175 King Street, Armonk	Owned	Offices	36,574
200 Lafayette, 3-7th floor	Owned	Offices	7,780
1301 Avenue of the Americas	Leased	Offices	4,187
California			
450 Sansome, San Francisco	Owned	Offices	12,306
458 & 486 E. Lambert Road, Fullerton	Owned	Industrial	37,741

Location	Leased/owned	Type of facility	Total Area (m^2)
Elan Huntington Beach, Huntington Beach, L.A.	Owned	Apartments	23,643
Georgia			
Brookleigh Flats, Atlanta	Owned	Apartments	29,410
Illinois			
JeffJack, Chicago	Owned	Apartments	12,680
Kansas			
One Kansas City Place, Kansas City	Leased	Offices	5,331
Indiana			
46804 Fort Wayne, Magnavox Way	Leased	Offices	7,004
Texas			
Groves South Lamar, Austin	Owned	Apartments	22,411
Washington D.C.			
2001 L Street, Washington	Owned	Offices	15,160
Virginia			
The Kingsley, Alexandria	Owned	Apartments	18,037
Germany			
Munich			
Arabellastr. 30	Leased	Offices	7,476
Leopoldstrasse 4/6	Owned	Offices	10,248
Hamburg			
Alsterufer 4-5	Owned	Offices	15,013
Am Speersort 1, Kattrepel 10/14	Owned	Offices	19,438
Grosse Elbstr. 27	Owned	Offices/Apartments	10,435
Kaiserkai 60-62	Owned	Offices	5,796
Slovakia			
Bratislava			
Mlynské nivy 12 (Twin City B)	Leased	Offices	16,532
India			
Bangalore			
2nd to 5th Floors, Fairwinds Building, Challaghatta Village, Varthur Hobli	Leased	Offices	19,014
Australia			
Brisbane			
353-357 Corner Samsonvale Road and Old North Road, Warner (Marketplace Warner)	Owned	Retail	11,474
Melbourne			
469 La Trobe	Owned	Offices	19,864
Sydney			
32 Walker St. North Sydney	Owned	Offices	6,519

We are not aware of any material environmental issues that would affect our utilization of the above properties other than our general obligation to comply with all applicable regulations.

GOVERNMENTAL, ARBITRATION AND LEGAL PROCEEDINGS

In the ordinary course of business, we are involved in governmental investigations or proceedings, lawsuits, arbitrations and other formal and informal dispute resolution procedures, the outcomes of which will determine our rights and obligations under reinsurance and other contractual agreements and/or our non-contractual rights and obligations arising at law (which may include rights arising under supranational regulations, national legislation, civil law codes, common law, tort or equity). In some disputes, we seek to enforce our rights under an agreement or to collect funds owing to us. In certain other matters, we defend against attempts by others to collect funds or to enforce alleged rights or legal obligations if we believe that such other parties are not rightfully entitled to collect such funds or enforce such alleged rights or legal obligations. These disputes arise from time to time and ultimately are resolved through both informal and formal means, including negotiated

resolution, arbitration and litigation. Our agreements with ceding companies and those to which we transfer risk under reinsurance arrangements typically provide that disputes are required to be finally settled by arbitration.

INTERRUPTION IN BUSINESS

During the past three years we have not experienced any material business interruption.

Regulation

General

The following is a summary of the most relevant regulations applicable to our operations, with a focus on reinsurance, and is not intended to be a comprehensive description of such regulations.

The business of reinsurance is regulated in most countries, although the degree and type of regulation varies significantly in different jurisdictions. The principal elements of direct supervision are licensing requirements, adequacy of technical provisions, available and required solvency capital and governance rules. In almost all jurisdictions, insurance supervisory authorities evaluate the creditworthiness of reinsurance recoverables (indirect reinsurance supervision). In most countries, reinsurers traditionally were generally subject to less direct regulation than primary insurers. Some countries require reinsurers to post collateral or impose a gross reserving system that allows ceding companies to get credit for reinsurance only if reinsurance recoverables are covered by pledged assets. While the focus of indirect supervision is on the effect of reinsurance on the balance sheet and risk exposure of the ceding company, direct reinsurance supervision instead focuses on the reinsurance company itself.

Today, there is increased direct supervision of our reinsurance operations. In the United States, the European Union and Switzerland, the licensing and supervision standards for reinsurance are comparable to those governing primary insurers, and include direct and indirect reinsurance supervision. Direct supervision enables supervisory authorities to intervene in the affairs of a reinsurer at an early stage should its financial position deteriorate or its risk governance proves to be insufficient. Given the global nature of reinsurance businesses, mutual alignment of supervisory systems is of increasing importance. Furthermore, the financial crisis has resulted in additional regulatory reforms in Europe, the United States and Asia. Government intervention in the reinsurance markets, worldwide, continues to evolve.

Our foreign subsidiaries and branches must comply with the respective regulations of their home and host countries. As some entities within the Guarantor Group are U.S. licensed and authorized reinsurers, we are subject to considerable regulation by state insurance commissioners. Among other things, our U.S. entities have to comply with regulations on solvency (RBC), reserving adequacy, and investment policies. Our U.S. entities are also subject to comprehensive statutory reporting requirements.

Set forth below is a summary of the material reinsurance regulations applicable in the main jurisdictions where Guarantor Group entities are located.

Global Trends

SIFIs. Given the trends in global regulation, regulations that apply to us directly or that otherwise would impact our business could change, and such changes could be significant. See generally, "Risk Factors – Legal, Tax and Regulatory Risks." In 2009, the G-20 committed itself to strengthening the financial system in cooperation with international organizations by applying a comprehensive global framework for reducing the moral hazard presented by SIFIs. SIFIs are institutions "of such size, market importance and global interconnectedness that their distress or failure would cause significant dislocation in the global financial system and adverse economic consequences across a range of countries." This framework aimed to provide for more intensive supervision and higher loss absorption capacity for, and resolution authority in respect of, SIFIs. The Basel Committee on Banking Supervision ("**BCBS**") and the IAIS are part of this global initiative and, under the oversight of the FSB and G-20, were focused on the identification of global systemically important banks ("**G-SIBs**") and G-SIIs – both of which are subsets of SIFIs – and the development of specific regulatory measures applying to these.

G-SIIs. Under the purview of the FSB and the G-20, the IAIS published and since refined an assessment methodology for identifying G-SIIs in July 2013, which was updated in June 2016. The IAIS used both an indicator-based assessment approach and a qualitative assessment to identify potential candidates for G-SII designation, with the overlay of regulators' and political judgment.

The indicator-based assessment approach is consistent with that adopted by the BCBS in assessing G-SIBs, although the selection, grouping and weighting of indicators seek to reflect the specific nature of the insurance sector. There are 17 indicators grouped into five categories (size, global activity, interconnectedness, asset

liquidation, and substitutability), with greatest weight given to interconnectedness (49%) and asset liquidation factors (36%), with the weighing for each of the other three categories being 5%.

In 2013, the FSB, in consultation with the IAIS and the national authorities, designated nine insurance companies as G-SIIs, with such list subject to reassessment and update annually in November. In 2014, the FSB announced that it was postponing its decision on the G-SII status of reinsurers, pending further development of the IAIS' refined G-SII assessment methodology. In 2016, after consideration of the IAIS' annual G-SII assessment exercise and following consultation with the IAIS and national authorities, the FSB identified nine primary insurers as G-SIIs, using end-2015 data and the methodology published by the IAIS in July 2013; in comparison to the 2014 cohort, one insurer was added and one removed from the list. The IAIS published the details of a refined G-SII assessment methodology in June 2016, which was applied effective with the 2016 G-SII designation. The revised methodology introduced various changes, among the most prominent of which was the addition of a qualitative assessment phase, including a reinsurance supplementary assessment.

Together with the publication of the first list of nine designated insurers, in July 2013 the IAIS also published its framework of policy measures for G-SIIs. The policy measures for G-SIIs are based on the general framework published by the FSB with adjustments to reflect the factors that make insurers, and the reasons why they might be systemically important, different from other financial institutions, and which include:

- **Enhanced supervision.** Supervision would be built upon IAIS's core insurance principles and the FSB's recommendations, and would include consolidated group-wide supervision, with the group-wide supervisor having direct power over holding companies, the oversight of the development and implementation of a Systemic Swiss Re Group Risk Management Plan to manage, mitigate and possibly reduce the systemic risk of the G-SIIs, and enhanced liquidity planning and management.
- **Effective resolution.** Resolution efforts would include establishing Crisis Management Groups, elaborating on the development of recovery and resolution plans, conducting resolvability assessments and adopting institution-specific cross-border cooperation agreements.
- **Higher loss absorption (HLA) capacity**. As a first step, a BCR would be applied to G-SIIs. The BCR is a simple, unified international capital standard, which is to form the foundation for HLA requirements for G-SIIs. The IAIS published the BCR in October 2014, which was subsequently endorsed by the FSB. G-SIIs were expected, as of January 2019, to be subject to the BCR, which in turn would form the basis for calculating a HLA requirement.

In November 2018, the FSB announced it was suspending further G-SII designations and that in 2022 it would determine whether to discontinue G-SII designations altogether, based on an assessment of progress made by the IAIS in establishing a new holistic framework for systemic risk that is expected to be adopted in late 2019 and implemented in 2020. The new framework proposes to move away from the binary G-SII approach in which certain additional policy measures are only applied to a relatively small group of insurers to an approach with a proportionate application of an enhanced set of policy measures targeted at the exposures and activities that can lead to systemic risks from the insurance sector as a whole. The IAIS also announced that the HLA would not be implemented before the start of 2022 and would not be automatically applicable within the new framework but would only be applied on a case-by-case basis by supervisory intervention. Shortly before the FSB announcement, the U.S. Department of the Treasury issued a report recommending various changes to the process used by FSOC to evaluate and designate nonbank financial institutions as SIFIs, which includes an endorsement of the activities-based approach.

As the scope and implications of the proposed new regime are still evolving, it is unclear what the consequences will be for us. We remain of the view that reinsurers are not themselves sources of systemic risk.

IAIGs. In addition to the G-SII policy measures and designation approach, the IAIS, under the oversight of the FSB, is developing ComFrame for the supervision of IAIGs (ComFrame also provides a rigorous definition of "**IAIG**"). ComFrame was initiated in light of the absence of an internationally coherent framework for the supervision of IAIGs and will include qualitative and quantitative requirements for IAIGs, as well as requirements designed to foster greater cooperation and coordination among supervisors. ComFrame includes provisions on group-wide supervision as well as provisions for recovery and resolution plans, a global ICS and other supplemental prudential measures (which could include restrictions on intra-group transactions and disallowance of diversification benefits). Substantive requirements would need to be reflected in national or regional regulatory and supervisory regimes.

In July 2018, the IAIS released for public consultation a draft of ComFrame and risk-based global ICS, which includes elements covering recovery and resolution planning and a range of qualitative and quantitative requirements specific to IAIGs, as well as the supervisory processes and prerequisites for supervisors to implement ComFrame. In its current form, ComFrame proposes that the group-wide supervisor, in consultation with the host supervisors, should exercise discretion in requiring IAIGs to submit recovery and resolution plans. We have produced recovery and resolution plans, which were subject to FINMA's review and we could be subject to recovery and resolution action by FINMA as a global supervisor or subject to local recovery and resolution actions by a host supervisor in coordination with FINMA. It is unclear the extent to which other regulators would recognise FINMA recovery and resolution actions. In addition, some host supervisors may develop local recovery and resolution planning requirements, to which our subsidiaries may be subject.

As of the end of 2017, the IAIS carried out its fourth ICS field testing and released an updated timeline for the ICS, amounting to a five-year delay to the original timeline, with plans for the ICS to become a binding requirement starting in 2024/25 instead of in 2019/20, as originally planned. There remain several significant points of contention among regulators, including with respect to the differences between U.S. and European valuation bases. In the five years following the original deadline of 2019/20, IAIS intends to carry out a period of confidential reporting, during which the ICS will be non-binding. The ICS will be based primarily on a Solvency II-inspired "market adjusted valuation," but may grant equivalency to the U.S. group capital requirements that are currently under development. The IAIS will also use the confidential reporting phase to determine the potential role of internal models in the ICS, allowing for optional reporting of internal model results.

European Union

General. The European Union has also introduced a supervisory system that establishes "macro-prudential" supervision through the European Systemic Risk Board (the "**ESRB**"), which is tasked with monitoring potential threats to financial stability and issuing early risk warnings. Additionally, the ESRB is complemented by the "micro-prudential" European Supervisory Authorities ("**ESAs**"), which comprise three separate sector-specific supervisory authorities, including the European Securities and Markets Authority (ESMA), the European Banking Authority (EBA) and the EIOPA. While national supervisory authorities remain in charge of supervising individual financial institutions, the objective of the ESAs is to improve the functioning of the internal market by ensuring appropriate, efficient and harmonized European regulation and supervision.

Solvency capital requirements. In Europe, Solvency II became effective on January 1, 2016, replacing what is now known as Solvency I. Solvency II introduced an economic risk-based solvency regime designed to harmonise the prudential supervision of reinsurers throughout the EEA.

Solvency II affects the regulatory environment of our insurance and reinsurance carriers domiciled or established in EEA member states. Our subsidiaries in EEA member states benefit from the single license principle within the European single market. The principle of branch separation between life and non-life does not apply to reinsurance.

The Solvency II framework adopts a three pillar approach with quantitative requirements on financial resources (Pillar 1), qualitative requirements on governance (Pillar 2) and requirements on public disclosure and supervisory reporting (Pillar 3). In relation to Pillar 1, all assets and liabilities are valued on a market consistent basis (with the exception of matching adjustment liabilities). Solvency II replaces the investment restrictions that were in place under many of the Solvency I directives with the "Prudent Person Principle" with an option for EEA member states to introduce certain quantitative restrictions. Solvency II introduced a risk-sensitive capital requirement (the "**SCR**"), which can be calculated using a standard formula or supervisory approved internal model or a combination of both (partial internal model) and requires reinsurers hold capital in relation to all quantifiable risks with a confidence level of 99.5%. Swiss Re has received approval to use an internal model for SRE, which ensures that regulatory capital requirements are more tailored to our risks than the standard formula. Pillar 2 is concerned with imposing standards of risk management and governance within a firm's organization. The ORSA requires us to undertake a forward looking self-assessment of our risks, corresponding capital requirements and adequacy of capital resources. Pillar 3 aims to achieve greater levels of transparency to the supervisors and the public so that firms are more disciplined in their actions. For our EEA-based regulated entities we are subject to private supervisory reporting on a quarterly and annual basis and are also required to publish annual solvency and financial condition reports.

Solvency II introduces a holistic approach to group supervision with a single group supervisor responsible for supervising all risks related to entities within a group, including intra-group transactions, changes to group structure and risk concentrations. Where non-EU countries are deemed to have a supervisory regime equivalent to Solvency II, EU supervisors must rely on the group supervision exercised by the third country supervisor. The European Commission found the Swiss supervisory system to be fully equivalent to Solvency II in relation to the solvency regime applied to reinsurance activities of reinsurers, which allows (i) reinsurance contracts with insurers in another EEA country to be treated in the same way as reinsurance contracts with EEA insurers (Article 172 of the Solvency II Directive); (ii) third-country insurers which are part of EEA groups to take into account the local calculation of capital requirements (Article 227 of the Solvency II Directive) and (iii) reliance of EEA supervisors on the group supervision of that third country (Article 260 of the Solvency II Directive). This decision became effective as of September 2015. Under Solvency II, EEA member states are not able to require EU licensed reinsurers or reinsurers in equivalent third countries to pledge assets or post collateral.

In July 2016, the European Commission launched a review of specific items in the Solvency II Delegated Regulation (supplementing the Solvency II Directive), which mainly relate to the standard formula. The objectives of the review are to make Solvency II more proportionate, remove unintended technical inconsistencies and eliminate unjustified constraints on financing. Subsequently, EIOPA issued several consultation packages which focused on a number of different areas, including the risk margin, treatment of non-proportional reinsurance, life and non-life underwriting risks, catastrophe risks and counterparty default risk. EIOPA shared its final advice with the EU Commission in February 2018. The European Commission is expected to submit a draft Delegated Regulation to the European Parliament and Council for non-objection. In February 2019, the European Commission issued a call for advice to EIOPA for the review of the Solvency II Directive, which includes areas such as the long-term guarantee measures, transitional provisions, risk margin, several adaptations of the standard formula, and changes in supervisory reporting. EIOPA has been requested to provide its advice by June 30, 2020. Separately, the European Commission has submitted a proposal on the reform of the European Supervisory Authorities (ESAs), of which EIOPA is one. It notes that there are inconsistencies with regard to the requirements of competent authorities and the supervision and agreement of internal models and aims to promote supervisory convergence by enhancing EIOPA's role regarding internal models, introducing new provisions on co-operation and information sharing. It also aims to provide EIOPA new powers to adopt opinions and contribute to the settlement of disputes between supervisory authorities. Negotiations regarding these proposals are currently ongoing and it is unclear whether EIOPA will take up all of the proposed additional powers.

The European Parliament has issued amendments to a proposal for a Directive of the European Parliament and of the Council of Europe amending Solvency II. It notes that there are inconsistencies under Solvency II with regard to the requirements of competent authorities and the supervision and agreement of internal models and aims to promote supervisory convergence by enhancing EIOPA's role regarding internal models, introducing new provisions on cooperation and information sharing. It also aims to provide EIOPA new powers to adopt opinions and contribute to the settlement of disputes between supervisory authorities.

On January 17, 2019, EIOPA published a call for evidence on the integration of sustainability risks and factors in the prudential assessment of assets and liabilities for reinsurers under Solvency II. EIOPA seeks to collect market data to analyse how sustainability risks affect reinsurers' investments, with a particular focus on climate change, as well as to collect data on market practices on insurance underwriting. National supervisory authorities will collect information from individual reinsurers. The deadline for responses to this call for evidence was March 8, 2019.

Withdrawal of the United Kingdom from the European Union. On March 29, 2017, the United Kingdom notified the European Council of its intent to withdraw from the European Union under Article 50 of the Treaty on European Union, which notification has initiated a two-year period during which the U.K. government and the European Council are negotiating a range of aspects of the withdrawal and the future relationship between the United Kingdom and the European Union. There is significant uncertainty as to the potential outcomes of the negotiations, when precisely withdrawal would take place, what the ongoing relationship would be between the United Kingdom and the remaining EU member states following any such withdrawal, the nature and length of any transitional period, and the impact of any such withdrawal on the economic conditions, regulatory and legal regimes, and other factors relevant to our operations within the United Kingdom, the remaining EU member states and other jurisdictions. The uncertainty is compounded by significant disagreements among senior officials of the British government as to the objectives of the negotiations.

Our ability to write business in the United Kingdom out of our Luxembourg-based carriers and any other EEA carriers that we may establish in the future pursuant to EU passporting rules could be affected by the withdrawal of the United Kingdom from the European Union. In March 2018, the PRA issued a new supervisory statement (SS2/18) “International insurers: the Prudential Regulation Authority’s approach to branch authorization and supervision” which introduces new factors to be considered alongside the PRA’s current requirements for third-country branch authorization set out in supervisory statement “Solvency II: third-country insurance and reinsurance branches (SS44/15).” Together, these supervisory statements apply to all existing and prospective insurance firms carrying out regulated activities, but not headquartered, in the United Kingdom that are not able to benefit from passporting rights, as well as EEA firms currently branching into the United Kingdom under passporting arrangements and intending to apply for PRA authorization in order to continue operating in the United Kingdom after its withdrawal from the European Union. We believe we are well advanced in our contingency planning. We have applied for licenses from the PRA for the existing U.K. branches of our Luxembourg entity (SRE) to operate as authorized third country branches to ensure continuity of service in the U.K. market, and are closely monitoring the likely outcomes of the withdrawal process.

In October 2018, the Bank of England published two consultations on its approach to amending financial services legislation under the European Union (Withdrawal) Act 2018 (CP 25/18) and changes to the PRA rulebook and onshore Binding Technical Standards (including the application of the TPR) (CP 26/18). If the United Kingdom were to withdrawal from the European Union without having entered into a withdrawal agreement, our UK branches are expected to benefit from the TPR in the United Kingdom, which would allow our UK branches to broadly continue their current operations until our applications for authorization are processed by the PRA. We are actively engaging with the PRA, EEA regulators and FINMA on our operational plans following the withdrawal of the United Kingdom from the European Union and we continue to assess the regulatory implications of, and the evolvement of our contingency plans in light of, the likely outcomes of the withdrawal process.

EU GDPR

The EU GDPR entered into force on May 25, 2018 and sets out a new framework for data protection laws in the European Union (replacing the previous EU Data Protection Directive of 1995). The regulation is intended to harmonize data privacy laws across Europe, setting out how personal data can be used by companies, governments and other organizations. The laws apply to companies or entities that process “personal data” as part of the activities of one of their branches established in the European Union, regardless of where the data is processed or companies established outside of the European Union offering goods and/or services (paid or for free) or monitoring the behavior of individuals in the European Union (i.e., by virtue of the collection of data concerning an EU resident). Personal data and the act of “processing” are both broadly defined under the EU GDPR.

The EU GDPR grants various rights to individuals and places various obligations on organizations covered by it. It grants individuals easier access to the data that organizations hold about them (which access may be free-of-charge) and bolsters their rights around automated processing of data, giving them power to have their personal data erased in some circumstances (including where it is no longer necessary for the purpose it was collected, if consent is withdrawn, if there is no legitimate interest and if it was unlawfully processed). The EU GDPR also imposes various restrictions on the types and amount of “personal data” a company or organization can process depending on the reason for processing it and the intended use and imposes clear responsibility on organizations to obtain the consent of the people they collect information about. For example, personal data must be processed in a lawful and transparent manner, for a specific purpose (which must be indicated to individuals when collecting their personal data), and only to the extent necessary to fulfil that purpose; organizations must ensure that personal data is accurate and up-to-date (having regard to the purposes for which it is processed) and correct it if it is not; organizations cannot further use the personal data for other purposes that are not compatible with the original purpose; organizations must ensure that personal data is stored for no longer than necessary for purposes for which it was collected; and organizations must install appropriate technical and organizational safeguards that ensure the security of the personal data. The EU GDPR also introduces a new fines regime, with potential fines of up to €10 million or 2% of a firm’s global turnover (whichever is greater) for smaller offences and with fines of up to €20 million or 4% of a firm’s global turnover (whichever is greater) for offences with more serious consequences, which far exceeds the current fines regime in EU member states.

Switzerland

General. We are subject to continued supervision by FINMA. FINMA monitors whether our organization, management and operations are in compliance with the provisions of applicable law and regulations, and exercises control over the calculation of our technical provisions, retrocession policy and solvency.

Swiss insurance supervision is based on the Swiss Insurance Supervision Act, and secondary legislation, the Swiss Insurance Supervision Ordinance (last amended in 2016). The Swiss Insurance Supervision Act and the Swiss Insurance Supervision Ordinance extended the scope of prudential supervision to pure reinsurance companies and introduced supplementary group supervision of insurance groups and insurance conglomerates.

The Swiss Insurance Supervision Act contains rules on corporate governance and internal risk management. It requires each insurance company to designate a responsible actuary whose responsibility is to ensure that adequate technical provisions are established and tied assets for primary insurance activities are in compliance with the prudential requirements. In contrast to primary insurance, reinsurance is not subject to the provisions governing the investments that cover technical provisions (tied assets). It also requires each company to appoint an independent auditor and have an internal audit function.

In November 2018, the Swiss Federal Council initiated a consultation on a partial revision of the Swiss Insurance Act, which has since closed. The revisions propose, among other things, new rules on the restructuring of reinsurance companies, portfolio transfers and the ability to reduce primary insurance claims. In addition, the revisions propose to create a new hierarchy for reinsurance claims (that are neither collateralized nor covered by tied assets) in the context of bail-in and write-off measures, which would result in such claims ranking in priority to other senior claims (such as claims arising from senior debt). Under the current legislation, reinsurance companies in financial crisis would be liquidated directly as the Swiss Insurance Supervision Act does not provide for the possibility of restructuring. The draft bill remains subject to approval by the Swiss Parliament and any final legislation is not expected to enter into force before 2020/2021.

FINMA pronouncements. The Swiss Insurance Supervision Ordinance provides for disclosure obligations, introduced ORSA requirements and introduced qualitative and quantitative liquidity requirements. In July 2015, FINMA released for consultation a package of reforms including a partial revision of the FINMA Insurance Supervision Ordinance (ISO-FINMA) and a series of FINMA circulars. The revised ISO-FINMA calls for new financial statement requirements. One FINMA circular addresses new ORSA requirements, and a second addresses public disclosure of information. The new requirements, which are intended to be aligned with the revised Swiss Insurance Supervision Ordinance, entered into force on January 1, 2016. A second set of new and revised FINMA circulars entered into force on January 1, 2017, as a result of the revised Swiss Insurance Supervision Ordinance. These cover principally business plans, corporate governance (including risk management and internal control systems), the SST (see discussion of the SST, below) and the appointed actuary. In addition, a circular on "direct transmission" specifies the prerequisites under which supervised institutions may directly transmit non-public information to foreign authorities and entities, which imposes limitations on our ability to submit non-public information (including with other regulators). On April 1, 2018, FINMA's outsourcing circular became effective, expressly regulating the way in which banks, securities dealers and, for the first time, insurance companies handle outsourced services (including group-internal and external outsourcing relationships).

As of December 28, 2017, Swiss-domiciled companies that are part of banking, insurance and financial market infrastructure groups and which carry out significant functions for activities requiring authorization (referred to as significant group companies) are subject to the legal provisions governing their relevant industry in the event of restructuring and/or bankruptcy. As of the same date, SRL and Swiss Re Management Ltd were each identified by FINMA to be a significant group company (though no entities in the Guarantor Group have, to date, been so identified), as a result of which they are subject to specific provisions set out in insurance legislation in Switzerland in the event of bankruptcy. Consequently, FINMA has the sole responsibility of initiating bankruptcy proceedings in respect of a significant group company (such as SRL and/or Swiss Re Management Ltd), in the same way as it has the sole responsibility for doing so in respect of license holders (such as SRZ), if it has reasonable concerns that such company or license holder is over-indebted or has serious liquidity issues. In addition, FINMA may order preventative measures on a license holder (at present, this does not apply to significant group companies) in the event that such license holder violates any insurance regulation or if FINMA deems that the interests of insured parties are otherwise threatened. Under the general information and reporting requirements, we must also report to FINMA the outsourcing of significant functions to group companies.

Solvency capital requirements. The solvency of insurance and reinsurance companies is assessed in accordance with the SST.

As an insurance group for regulatory purposes, we are also subject to supplementary group supervision in Switzerland. This includes a group-wide consolidated solvency calculation, and reporting requirements relating to intra-group transactions, changes to our group structure and risk concentration. The Swiss regime of supplementary group supervision is equivalent to the rules set out in Article 260 of the Solvency II Directive, which relates to group supervision of EEA insurers with parent companies outside the EEA, where equivalence means EEA supervisors rely on the group supervision of that third country. This enables FINMA to assume the lead regulator function in exercising its supplementary group supervision over us. Additionally, co-ordination among supervisory authorities is taking place in the context of Supervisory Colleges and information exchange is taking place pursuant to Memoranda of Understanding that have been concluded between the Swiss and the EU (and other) regulatory authorities.

Since January 1, 2011, companies subject to the SST are required to meet the SST capital adequacy requirements. The European Commission in June 2015 granted Switzerland full equivalence for Solvency II purposes (which became effective in September 2015). The SST applies to reinsurance as well as insurance companies, and in our case applies to the Swiss Re Group (because SRL is domiciled in Switzerland), as well as individually to those of SRL's subsidiaries that are domiciled in Switzerland and licensed as reinsurance companies (including SRZ).

The SST distinguishes between risk-bearing capital (available economic capital) and target capital (required economic capital). The calculation of the target capital requirement is based on both insurance and financial risks. Reinsurance (or retrocession) is treated as an asset. We determine target capital on the basis of our internal risk model. For calculating SST, all assets and liabilities are valued on a market-consistent basis. The market-consistent value of technical provisions is defined as the best estimate discounted based on risk-free interest rates plus the market value margin, which represents the cost of holding capital during a potential run-off. The market value margin is approximated by using a cost of capital approach. This is defined as the cost of the present value of the future solvency capital, which will be necessary to back the entire existing portfolio of liabilities during the run-off period. A new valuation methodology has been introduced effective January 1, 2017 and has a transition period until January 1, 2020. A principal change from the historical calculation methodology, which is more aligned with Solvency II, is that the market value margin is no longer considered as part of target capital, but rather is deducted from both risk-bearing capital and target capital. As a result of the new FINMA circular, the SST methodology has changed effective January 1, 2017. The changes related to the capital costs recognition had a positive impact on our SST 2017 ratio, while not affecting our excess capital over the 100% minimum requirement.

The SST assesses financial security of subject companies based on the risks to which they are exposed and if risk-bearing capital is less than target capital, a subject company likely has insufficient risk-bearing capital to be able to bear the average losses for a one in a hundred year loss event (the 99% Tail VaR). In such a case the subject company must either reduce its risk exposure or ensure that it has more risk-bearing capital.

- If the SST ratio falls below the 100% threshold, the subject company must prepare an action plan of activities that would return the company's SST ratio to above 80% within two years and to above 100% within three years. FINMA requires that the subject company report to it at least every six months as to whether it has achieved the specified targets defined in the action plan, which has to be approved by FINMA. Specific decisions, such as paying dividends, capital repayments, voluntary repayments of loans, intra-group transactions and other similar transactions, must be presented in advance to FINMA for approval. In this range, there is an increased risk due to the solvency situation and FINMA will intensify the dialogue to mitigate the risk.
- If the SST ratio falls below 80%, FINMA restricts the subject company from distributing dividends.
- If the SST ratio falls below 33%, FINMA can revoke a subject company's license.

The target amounts of the various thresholds are established in the assessment of the SST reports and are binding until completion of the assessment of the next SST report. In certain extraordinary circumstances, FINMA can order the performance of a sub-annual assessment and, as applicable, re-estimate target capital.

The SST is coupled with comprehensive risk reporting requirements. SST reports are intended to cover the information necessary for FINMA to assess the capital adequacy and risk position of a subject company.

Historically, Swiss Re submitted SST reports to FINMA on a semi-annual basis for both the insurance group and solo entities (including SRZ). Under the revised Swiss Insurance Supervision Ordinance, the filing requirement is now annual only, in April of each year.

In addition, reporting to FINMA is required upon the incurrence of a significant decline in an SST ratio (defined for SST ratios above 190%, as a relative reduction of the SST ratio of at least 33%; for SST ratios of 190% or less, as a relative reduction of the SST ratio of at least 20%) or crossing one of the above-mentioned FINMA intervention thresholds.

FINMA also has the right to request more frequent filings of SST reports than annually. From 2018 onwards (i.e., commencing with the 2017 reporting period), FINMA-supervised reinsurance companies or groups such as Swiss Re are required to publish a financial condition report ("**FCR**") on their website by April 30 each year. The FCR will include a breakdown of the component of SST target and risk bearing capital and information about our choice of an internal model and whether it has been approved by FINMA. Due to the preference given to the use of standard models under the revised Swiss Insurance Supervision Ordinance, Swiss Re applied to use an internal model for the SST, which was approved in November 2017.

The SST ratio is a function of available and required capital based on an economic valuation of assets and liabilities with an integrated forward-looking assessment of underwriting, financial market and credit risk and, therefore, the Swiss Re Group or solo SST ratios could fluctuate over time, and such fluctuations could be significant. See "Cautionary Note on Forward-Looking Statements."

SST Ratios

The following table sets forth the components of the Swiss Re Group and SRZ solo SST ratios as reported to FINMA in April 2016 (as of January 1, 2016), April 2017 (as of January 1, 2017) and April 2018 (as of January 1, 2018), and as expected to be reported to FINMA in April 2019 (as of January 1, 2019). The information for SST 2019 is based on currently available figures and may differ from the information included in the final Swiss Re Group SST 2019 report. See generally, "Swiss Re Group Risk and Capital Management."

	SST 2016[1]		**SST 2017**		**SST 2018**		**SST 2019**	
	Swiss Re Group[2]	**SRZ Solo**	**Swiss Re Group**[3]	**SRZ Solo**	**Swiss Re Group**[4]	**SRZ Solo**	**Swiss Re Group**[5]	**SRZ Solo**
	(unaudited)							
SST risk-bearing capital (RBC) *($ in billions)*	50.1		51.3		52.3		47.6	
SST target capital (TC) *($ in billions)*	22.5		22.8		23.2		23.2	
SST ratio[6] *(%)*	261	237	262	237	269	252	251[7]	218[8]

(1) Based on the changed FINMA methodology for calculating the SST ratio that became effective January 1, 2017. Under the prior methodology, the Swiss Re Group's SST ratio as reported to FINMA in 2016 would have been 223% and the SRZ solo SST ratio as reported to FINMA in 2016 would have been 219%.

(2) MVM of $5.3 billion. MVM represents the minimum cost of holding capital after the one-year SST period until the end of a potential run-off period.

(3) MVM of $5.2 billion.

(4) MVM of $5.9 billion.

(5) MVM of $7.0 billion.

(6) Calculated by dividing RBC less MVM by TC less MVM, where MVM is equal to the cost of capital of the present value of future regulatory capital associated with the relevant pool of assets and liabilities.

(7) The following table sets forth the estimated impact on 2019 Swiss Re Group SST of various stress events:

Equity markets (-25%)	248%
Equity markets (+25)	254%
Interest rates (-50 basis points)	239%
Interest rates (+50 basis points)	261%
Credit spreads (-50 basis points)	244%
Credit spreads (+50 basis points)	259%

Real estate (-25%)	245%
Real estate (+25%)	257%

(8) Represents an excess of $14.3 billion above the 100% regulatory capital requirement. SRZ's solo SST ratio will be subject to sensitivities in stress scenarios that are a subset of, but substantially similar, to those that affect the Swiss Re Group's SST ratio.

United States

The regulation of insurance and reinsurance companies in the United States is primarily carried out within comprehensive state law regulatory frameworks. However, regulatory reforms prompted by the financial crisis introduced an overlay of a framework for regulation of the insurance industry, in addition to ad hoc, issue-specific federal regulation of insurance and reinsurance.

Federal regulation. The Dodd-Frank Act introduced regulation covering systemic risk, resolution authority, executive compensation, rating agencies and other matters. Among other new regulatory bodies, the Dodd-Frank Act established the FSOC and the FIO.

The FSOC was created to identify risks to the financial stability of the United States, promote market discipline and respond to any emerging threats to the stability of the United States financial markets. Among its other powers, the FSOC has the authority to designate a non-bank financial company as "systemically important," which carries far reaching consequences for such company's business, operations and financial condition. The FSOC makes its determinations of which, if any, firms are systemically important based on whether a firm's material financial distress, or nature, scope, size, scale, concentration, interconnectedness or mix of activities, or failure could pose a threat to the financial stability of the United States. No industry-wide exemptions will be provided and insurance companies have been and may be assessed for designation as "systemically important." Firms designated as "systemically important" are subject to supervision by the Federal Reserve, including prudential standards developed by the Federal Reserve.

The FSOC issued the final rule for the framework and criteria to identify non-bank SIFIs. Such designation would subject a company to supervision by the Board of Governors of the Federal Reserve System (including prudential standards developed by the Federal Reserve) and would require it, among other things, to create a "living will" resolution plan and to comply with other regulations under the Dodd-Frank Act. The process for designating a non-bank financial company as systemically important incorporates both qualitative and quantitative analyses, and is ultimately subject to the discretion of the FSOC. The ultimate designation as systemically important would result in dual regulation by state regulators and a federal regulator (the Federal Reserve), risk-based solvency and liquidity requirements, leverage limits, stress testing by the federal regulator, mandatory "living will" arrangements, limits on counterparty credit exposure, enhanced risk management, including establishing a risk committee of the board of directors, periodic reporting of credit exposures between the institution and other significant financial companies, early remediation requirements that increase in stringency if the financial condition of the institution declines, and a debt-to-equity limit for institutions determined to pose a grave threat to financial stability. The insurance sector is subject to assessment by the FSOC for possible designation; however, the IAIS and the FSOC to date differ in their respective approaches, and in particular on the weighting of NTNIs, which receive a higher weighting by the IAIS.

In July 2013, FSOC voted to designate various non-bank financial companies, including multinational insurance corporations, as SIFIs and, in September and December 2014, respectively, the FSOC designated two insurance companies as SIFIs. Since then, designations of insurers as SIFIs were rescinded; currently no insurers are designated as SIFIs, except those operating a thrift. In December 2017, the U.S. Department of the Treasury recommended various changes to the FSOC's SIFI designation process, including, among other things, encouraging the FSOC to prioritize the identification of particular financial activities or products that could pose risks to U.S. financial stability and then work with the primary financial regulatory agencies to use their existing authorities to address and mitigate these risks, proposing an amendment to the $50 billion consolidated assets threshold used as an evaluation criteria for nonbank financial institutions to more appropriately tailor it to the risk that an institution could pose to financial stability and changing the designation process to emphasize an activities-based approach. The FSB announced shortly thereafter that it would no longer update its list of global insurance company SIFIs and planned to focus on an activities-based approach instead. Following FSB's lead, in November 2018, the IAIS proposed a new "holistic" activities-based framework for addressing systemic risk in insurance that is expected to be adopted in late 2019 and implemented in 2020.

The FIO is charged with monitoring the insurance industry, coordinating federal policy on international insurance matters, identifying gaps in insurance regulation that could contribute to a systemic crisis,

recommending to the FSOC that an insurer be supervised as a non-bank financial company by the Federal Reserve, and determining which state insurance laws are pre-empted by U.S. government international agreements on the insurance sector. In December 2013, pursuant to a mandate under the Dodd-Frank Act, the FIO released a report that addresses modernization of the insurance industry. The report concludes that insurance regulation in the United States is best viewed in terms of a hybrid model, where state and federal oversight play complementary roles to improve solvency and market conduct regulation. The report outlines near-term reforms that states should undertake regarding capital adequacy, safety and soundness, reform of insurer resolution practices, and marketplace regulation. It also outlines areas for federal involvement in insurance regulation.

Finally, the Dodd-Frank Act may affect our operations in other ways. Certain provisions of the Dodd-Frank Act require central clearing of, and/or impose new margin and capital requirements on, derivatives transactions, which could increase the costs of our hedging transactions and impact ILS issuance, with initial clearing requirements applicable to some types of swaps having taken effect in the first quarter of 2013 and additional requirements having been proposed. There could also be possible adverse impacts on the pricing and liquidity of some of the securities in which we invest resulting from the proprietary trading and market making limitations of the Volcker Rule, which was adopted in December 2013.

The U.S. Congress is considering proposed amendments to, and in repeal of certain parts of, the Dodd-Frank Act, which, as currently proposed, would revoke the FSOC's ability to designate non-bank SIFIs, would restructure the FIO (essentially merging it with the office of the independent insurance voting member of the FSOC) and would repeal the Volcker Rule. While legislative proposals to this end have advanced in the U.S. House of Representatives, it is unclear whether such legislation ultimately will become law and if it does what the scope ultimately will be.

The United States has entered into bilateral covered agreements with the European Union and the United Kingdom that address reinsurance collateral, group supervision and information exchange. The covered agreement requires U.S. state regulators to work towards eliminating statutory collateral requirements for EU and UK reinsurers that meet certain financial requirements (*e.g.*, the NAIC model law). The agreement affirms the U.S. system of insurance regulation, including the role of state insurance regulators as the primary supervisors of the business of insurance. It provides regulatory certainty for U.S. reinsurers operating in the European Union and the United Kingdom and is expected to reduce costs for insurers and personal and commercial policyholders in the United States, while preserving important consumer protection provisions. If U.S. state regulators do not take necessary action within five years, the U.S. government can take pre-emptive action. Non-EU re/insurers are monitoring and evaluating state implementation to determine whether to pursue additional covered agreements.

State regulation. Our U.S. reinsurance and insurance subsidiaries are primarily regulated under the insurance statutes (including holding company regulations) of various states. These include the states where our U.S. reinsurance and insurance subsidiaries are domiciled (Missouri, New Hampshire, New York, Texas and Vermont) and each state where a subsidiary is licensed to do business. Currently, our principal operating subsidiaries are generally licensed, approved or accredited reinsurers, or are otherwise permitted to sell reinsurance in all fifty states, the District of Columbia and Puerto Rico, although this does vary by subsidiary.

State regulation generally has its source in laws that delegate regulatory, supervisory and administrative authority to a department of insurance in each state. State regulatory authorities monitor compliance with, and periodically conduct examinations regarding, state mandated standards, such as solvency, licensing requirements, investment limitations, restrictions on the size of risks that may be insured or reinsured, deposits of securities for the benefit of reinsureds, methods of accounting, and reserves for unearned premiums, losses and other purposes. In the case of reinsurance, these regulations are for the protection of reinsureds and, ultimately, their policyholders, rather than security holders.

In the case of primary insurance, the states' regulatory schemes also extend to policy form and rate approval and market conduct regulation, including the use of credit information and other "big data" in underwriting as well as other underwriting and claims practices. In addition, state legislators and officials across the country are becoming more comfortable with the idea of modernizing regulation and letting competition determine rates by enacting various competitive rate making laws, which allow insurers to set premium rate for certain classes of insurance without obtaining the prior approval of the state insurance department. State insurance departments also conduct periodic examination of the affairs of authorized insurance companies and require the filing of annual and other reports relating to the financial condition of companies and other matters. Further, state

insurance departments also cooperate with other countries with respect to regulation and regulatory enforcement. For example, the state of New York has signed Memoranda of Understanding with various foreign regulatory authorities, including, among others, Switzerland, China, Bermuda, France, the United Kingdom and Germany. The state of Missouri has signed the IAIS Multilateral Memorandum of Understanding (MMoU) with other MMoU signatories, including Switzerland. While reinsurers are generally regulated in a similar manner and to a similar extent as primary insurers, they are not subject to market conduct, policy form or rate regulations. As a "certified reinsurer" in twenty states, we are required to post only 10% collateral, rather than 100% as is usually required under state law for a cedent to claim credit for reinsurance. The certified reinsurer status subjects us to certain additional regulation, including a requirement to report to the states, submit to the jurisdiction of the courts and insurance department within the state, and supply additional information as requested by the commissioner. The certified reinsurer status is not afforded to every reinsurer and is granted only after a thorough review by the state of the relevant reinsurer's operations, solvency and business. The NAIC and the states will implement the US-EU and US-UK covered agreements over the next several years, eliminating statutory collateral requirements for qualifying reinsurers. We expect the opportunity for zero-collateral benefits will be afforded to us.

Holding Company Regulation. Regulations vary from state to state, but generally require insurance holding companies and insurers and reinsurers that are subsidiaries of holding companies to register and file with state regulatory authorities certain reports including information concerning capital structure, ownership, financial condition, certain intercompany transactions and general business operations. Certain holding company transactions, including extraordinary dividends, require the domiciliary regulator's approval. In addition, under the terms of applicable state statutes, any person or entity desiring to obtain beneficial ownership of 10% (with certain limited exceptions) or more of our outstanding voting securities is required to obtain prior regulatory approval for such purchase.

Guaranty Fund Assessments. All states require licensed insurers to participate in various forms of guaranty associations in order to bear a portion of the loss suffered by certain insureds caused by the insolvency of other insurers. Depending upon state law, primary insurers can be assessed a percentage of the annual direct premiums written for the relevant lines of insurance in that state to pay the claims of an insolvent insurer. Most of these assessments are recoverable through premium rates, premium tax credits or policy surcharges.

Involuntary Pools. Our primary insurance subsidiaries are also required to participate in various involuntary assigned risk pools or other residual market mechanisms, principally involving workers' compensation and automobile insurance, which provide various insurance coverages to individuals or other entities that otherwise are unable to purchase such coverage in the voluntary market. Participation in these pools in most states is generally in proportion to voluntary writings of related lines of direct business in that state.

Risk-Based Capital (RBC). U.S. insurers are subject to risk-based capital guidelines that provide a method to measure the total adjusted capital (statutory capital and surplus plus/minus other adjustments) of insurance companies taking into account the risk characteristics of the company's investments and products. The risk-based capital formulas are designed to measure the accuracy of an insurer's statutory surplus in relation to the risks inherent in its business. Risk-based capital is only one of many tools U.S. regulators use to review and measure the financial strength of the insurance industry. The risk-based capital formulas establish capital requirements for a number of categories of risk, the largest being: asset risk, insurance risk, interest rate risk and business risk. Within each category, the NAIC continues to add risk charges. The capital requirement for each category is determined by applying factors to asset, premium and reserve items, with higher factors applied to items with greater underlying risk and lower factors for less risky items. Insurers that have less statutory capital than the risk-based capital calculation requires are considered to have inadequate capital and are subject to varying degrees of regulatory action depending upon the level of capital inadequacy.

The risk-based capital formulas and related ratio outputs were not designed to be used as a comparative measure of financial strength between different companies because of the different risk profile and/or capital provisions of each company. Our U.S. insurance subsidiaries have satisfied the risk-based capital formula since it was created in the mid-1990s and have exceeded all recognized industry solvency standards. As of December 31, 2018, all of our U.S. insurance subsidiaries had adjusted capital in excess of amounts requiring regulatory and/or company action.

NAIC Ratios. The NAIC Insurance Regulatory Information System, ("**IRIS**"), was developed to help state regulators identify companies that may require special attention. The IRIS system is comprised of statistical and analytical phases consisting of key financial ratios whereby financial examiners review annual statutory basis

statements and financial ratios. Each ratio has an established “usual range” of results and assists state insurance departments in executing their statutory mandate to oversee the financial condition of insurance companies. A ratio result falling outside the usual range of IRIS ratios is not considered a failing result; rather unusual values are viewed as part of the regulatory early monitoring system. Furthermore, in some years, it may not be unusual for financially sound companies to have several ratios with results outside the usual ranges. An insurance company may fall out of the usual range for one or more ratios because of specific transactions that are in themselves immaterial. Generally, an insurance company will be notified of regulatory concerns and may be subject to regulatory action if it falls outside the usual ranges of four or more of the ratios.

NAIC Credit for Reinsurance. In November 2011, the NAIC adopted changes to its Credit for Reinsurance Model Act and Model Regulation that permit reinsurers that meet certain standards to post reduced, or no, collateral. The revised models base collateral requirements on a sliding scale, which is tied to a reinsurer’s rating. The NAIC has added the revised Credit for Reinsurance Models as required accreditation standards beginning January 1, 2019. This means that states are required to adopt credit for reinsurance reforms in order to maintain NAIC accreditation. While it is clear in the models that these collateral reforms do not apply to in-force property and casualty contracts, their application to in-force life contracts is somewhat ambiguous and application to in-force life contracts may vary by state.

Additional key provisions of the models include the development by the NAIC of a list of qualified jurisdictions on which regulators may rely in making reduced collateral determinations, minimum capital requirements for reinsurers, increased financial filing requirements for reinsurers, and mandatory risk concentration notifications for cedents.

To become effective, these changes must be adopted by individual states and may require statutory changes, regulatory changes, or both. Currently, all US jurisdictions except Oregon have adopted the reforms, although full implementation is still outstanding in seven jurisdictions: Alaska, Illinois, Kansas, Kentucky, Minnesota, North Carolina and West Virginia.

DFS Cyber Regulation and other cybersecurity initiatives. The DFS Regulation entered into force on August 28, 2017 (becoming the first U.S. cybersecurity regulation) and requires covered entities to meet minimum cybersecurity standards based on the risk assessment of the entity, personnel, training and controls in place in order to protect data and information systems. Covered entities include entities operating under or required to operate under DFS licensing, registration or charter, or which are otherwise DFS-regulated, as well as, by extension, unregulated third-party service providers to regulated entities and include banks and reinsurers.

Covered entities are required to adopt and maintain a robust cybersecurity program designed to protect consumers’ private data, enact a comprehensive written cybersecurity policy or policies that are approved by the board or a senior officer (and which must address concerns in alignment with industry best practices and ISO 27001 standards), to designate a chief information security officer to oversee and implement the cybersecurity program and enforce policy, to use qualified, continuously trained cybersecurity personnel to manage evolving cybersecurity threats and responses, to limit access privileges granted to users and to have controls and plans in place to help ensure the safety and soundness of New York’s financial services industry. Some requirements of the DFS Cyber Regulation go above and beyond existing industry best practices, including requiring organizations to enact controls (including encryption of sensitive data, depending on the outcome of a risk assessment; complete an annual certification to confirm compliance with the regulations; employ multi-factor authentication for all inbound connections to the entity’s network and document and report all cybersecurity events. Covered entities are also required to report cybersecurity events to the DFS through its online cybersecurity portal. A cybersecurity event is reportable if it falls into at least one of two categories, being the cybersecurity event impacts the covered entity and notice of it is required to be provided to any government body, self-regulatory agency or any other supervisory body or the cybersecurity event has a reasonable likelihood of materially harming any material part of the normal operation(s) of the covered entity.

In October 2017, the NAIC developed a model cybersecurity law that individual state legislatures could ultimately choose to adopt (as was the case in South Carolina in 2018). The NAIC’s model law establishes a guiding framework that provides actionable expectations to regulated entities so they can develop and establish the operation of a comprehensive cybersecurity program, including planned cybersecurity testing, board-level involvement with a company’s information security program and incident response plans for specific notification procedures. Although this model law cannot be enforced at a national level and no state or territory is compelled to adopt it, it becomes binding when it is approved and adopted in each regulated jurisdiction and

the NAIC is strongly encouraging states to adopt it (with a goal of having it passed by the majority of states within three years).

Federal Initiatives. Although U.S. state regulation is the primary form of regulation of insurance and reinsurance, U.S. Congress has primary jurisdiction over issues of taxation of foreign-based reinsurers, flood insurance and terrorism insurance.

The Tax Cuts and Jobs Act introduced wide-ranging and complex amendments to the Code, including international provisions impacting our current operating model, results of operations and financial condition, although such work remains ongoing and subject to significant continued uncertainty. We continue to engage in dialogue with key U.S. regulators and FINMA with respect to internal mitigating solutions that require their advice and/or approval.

TRIA established a program in 2002 under which the federal government will share with the insurance industry the risk of loss arising from certain kinds of terrorist attacks. TRIA was originally scheduled to expire in 2005, and although there was substantial uncertainty as to whether U.S. Congress would extend the program beyond its scheduled expiration, the Terrorism Risk Insurance Extension Act of 2005 ("**TRIA Extension**") was signed into law on December 22, 2005 extending TRIA, with some amendments, through December 31, 2007. On December 26, 2007, the TRIA was extended again under the Terrorism Risk Insurance Program Reauthorization Act of 2007 ("**TRIPRA 2007**") for an additional seven years (to December 31, 2014). This legislation imposes a deductible upon insurers that must be satisfied before federal assistance is triggered and also contains a co-insurance feature. The deductible, which has increased each year of the program, is based on a percentage of direct earned premiums for commercial insurance lines from the previous calendar year. The program imposes an annual cap of $100 billion on covered losses. Participation in the program for commercial property and casualty insurers is mandatory.

On January 12, 2015, TRIA was extended for an additional six years (to December 31, 2020), under the Terrorism Risk Insurance Program Reauthorization Act of 2015 ("**TRIPRA 2015**"). TRIPRA 2015 contained several non-structural additional changes to the TRIA program, including a phased-in increase of the program trigger to $200 million and a phased-in increase of the insurer co-share requirements from 85/15 to 80/20. There are also gradual increases to the mandatory recoupment surcharges. For the first five years of the reauthorized period, the insurance marketplace aggregate retention amount is the lesser of $27.5 billion, which increases in annual increments to $37.5 billion, or the aggregate amount for all insurers losses during the calendar year, while in the sixth year, the Treasury Secretary will issue a final rule to annually revise such amount so that it is equal to the annual average of the sum of insurer deductibles for all insurers participating in the program for the prior three calendar years. There are no changes to the program cap of $100 billion and to the insurer deductible of 20% of direct earned premium from the previous year's covered lines.

While the legislation provides the property and casualty sector with an increased ability to withstand the effects of potential terrorist events, companies could, nevertheless, still be materially adversely impacted. Terrorist attacks are unpredictable as to the nature, severity or frequency of such potential events. Terrorist attacks also are correlated with other financial risks such as the risk of a swift and significant stock market decline.

As TRIA is authorized through December 31, 2020, the U.S. Congress will need to pass reauthorizing legislation before then to avoid a lapse in the program. Industry views on the 2020 reauthorization are beginning to emerge and, so far, there is no consensus on the scope of reauthorization. In previous reauthorization debates, efforts to restructure the program have been rejected by the U.S. Congress and cyber risk was not perceived to be as significant a threat as it is today.

Because terrorism risk lacks several basic requirements of insurability, a permanent federal terrorism risk backstop has been advocated by the industry to reduce the risk of market disruption from terrorism. International coordination and cooperation in undertaking such efforts will be crucial, despite this being a U.S.-based initiative.

Natural catastrophes in the United States have focused legislative and industry attention on how to best finance natural catastrophe risk in the future. On the federal level, the long-standing National Flood Insurance Program, which provides a federally-backed insurance for property owners in cases of floods, has been most recently extended through May 31, 2019. The U.S. Congress continues to consider pieces of legislation that would combine a multi-year reauthorization with reforms designed to increase private sector participation in the flood insurance market; however, legislative efforts have stalled due to lack of bipartisan consensus. In the absence of

legislation, the Federal Emergency Management Agency has approved minor reform measures designed to make the National Flood Insurance Program more actuarially sound (some of which became effective on or after April 1, 2018 (but which took effect in practice in the fourth quarter of 2018 in line with renewals), and others which become effective as of January 1, 2019), including reducing compensation for insurers selling national flood insurance policies. In early 2007, Florida enacted legislation that expanded the government-run insurer and reinsurance fund (Florida Hurricane Catastrophe Fund), substantially crowding out the insurance and reinsurance market. Other Gulf states, including Louisiana and South Carolina, have considered similar actions to take to protect their residents. Some insurers and government officials have requested that the federal government create a national fund to provide coverage for all types of natural catastrophes. Various bills are typically introduced in every session of the U.S. Congress that would address natural catastrophes, usually proposing federally funded backstops to state-based catastrophe funds, which legislative efforts have generally lacked momentum.

There is significant industry opposition to the creation of such government funds and programs, for natural catastrophes, as many interested parties believe that the private market can adequately handle natural catastrophe risk if free market principles are allowed to operate. Governments appear more hesitant to assume contingent liabilities, following the financial crisis.

United Kingdom

Regulatory oversight. In the United Kingdom, the Bank of England has macro-prudential responsibility for oversight of the financial system and for day-to-day prudential supervision of financial services firms managing significant balance sheet risk, the latter of which is entrusted to the PRA. The FCA is the conduct of business regulator, whose remit includes both retail and wholesale business, including reinsurance. All firms subject to regulatory supervision are regulated by the FCA, with significant firms, including reinsurers, also being subject to supervision by the PRA. For these dual-regulated firms, the PRA is the prudential regulator and takes the lead role, and the FCA acts as the conduct regulator. As an EU member state, the United Kingdom applies Solvency II to reinsurers. Our U.K. subsidiaries are subject to regulation and supervision under FSMA, its implementing regulations and the powers delegated to the FCA and the PRA. Under FSMA, regulatory authority is vested in the FCA and the PRA.

The statutory objectives of the FCA are to protect the consumers, to enhance the integrity of the U.K. financial system and to help maintain competitive markets and promote effective competition in the interests of consumers. The statutory objectives of the PRA with respect to insurers are to promote the safety and soundness of insurance firms and to contribute to the securing of an appropriate degree of protection for those who are or may become policyholders. The PRA is required to advance these general objectives by seeking to ensure that the business of PRA-authorized firms is carried on in a way that avoids any adverse effect on the stability of the U.K. financial system and by seeking to minimize the adverse effect that the failure of a PRA-authorized firm could be expected to have on the stability of the U.K. financial system. With respect to policyholder protection, the PRA's role is to ensure that there is a reasonably high probability that an insurer is able to meet claims from, and material obligations to, policy holders as they fall due, and to make sure that where an insurer is unable to meet such claims and obligations, the adverse consequences for policyholders are minimized by ensuring that the insurer fails in an orderly manner. The PRA and the FCA have a statutory duty to coordinate with each other in the exercise of their functions.

Subject to the exemptions prescribed under FSMA, no person may carry out regulated activities in the United Kingdom without authorization by the FCA and/or the PRA. Regulated activities include effecting and carrying out contracts of insurance. The activities a company is permitted to undertake are normally specified in a permission (“**Permission**”) that is granted if certain threshold conditions (which are minimum conditions necessary for a firm to be authorized) are satisfied. (Permissions previously granted by the FSA have been transferred to the PRA and/or the FCA, as applicable.) The grant of the Permission delivers authorization. Our active U.K. subsidiaries hold Permissions for life insurance and for investment business (including the management of collective investment schemes, the provision of discretionary asset management services, the provision of advisory and/or dealing services and the safeguarding and administration of assets). These subsidiaries must also comply with conduct of business rules, rules relating to systems and controls and the applicable rules regarding adequacy of financial resources.

These Permissions are specified by company in the Financial Services Register maintained by the FCA. Our reinsurance and wholesale non-life insurance business is carried on by U.K. branches of our Luxembourg-regulated carriers, which we discuss further below. These U.K. branches are subject to supervision and fees

from the FCA as the EU passport principles extend to conduct supervision and consumer protection at present. This is a significant additional regulatory cost of the new U.K. system.

The Senior Managers and Certification Regime ("**SMCR**"), which currently governs the appointment, responsibilities and conduct of senior personnel at banks and some investment firms, was extended by the PRA and the FCA to other financial service sectors, including the insurance sector, with effect from December 10, 2018. The intention behind the SMCR is to encourage individuals to take greater responsibility for their actions, make it easier to hold them to account and bring more individuals within relevant firms into the regulated sphere.

The SMCR consists of three elements:

- the Senior Managers Regime;
- the Certification Regime; and
- the Conduct rules.

The Senior Managers Regime sets out Senior Management Functions ("**SMFs**") where senior people performing key roles will need to be approved by the PRA or the FCA and are generally described as "approved persons". All persons performing SMFs at Swiss Re covered by the regime must be approved persons, for example, the chief executive officer, chief financial officer, and chairman of the board and the chair of the Audit Committee and the Risk Committee, respectively. As such, they are subject to ongoing regulatory obligations for which they are personally accountable to the PRA and/or FCA. They are expected to be "fit and proper" persons and they must satisfy standards of conducts that are appropriate to the role they perform.

The certification regime applies to each individual below the level of Senior Managers and applies to a different set of persons as specified by the PRA and the FCA. These individuals must be identified by us and be assessed and then certified as "fit and proper" to carry out a certification function on at least an annual basis.

The Conduct Rules ("**Conduct Rules**") are new individual conduct rules that will apply to all employees of Swiss Re (including Senior Managers and Certified Persons) and other auxiliary staff. Four additional Senior Manager Conduct Rules apply just to Senior Managers. The Conduct rules are set out in the PRA Insurance – Conduct Standards and the FCA Code of Conduct Sourcebook. The PRA and FCA have wide-ranging powers under FSMA to act against relevant persons who fail to satisfy these standards of conduct or who cease to be fit and proper, including withdrawal of their approved status, granting a prohibition order, disciplinary action and/or fines.

Luxembourg

We have a reinsurance carrier, SRE, based in Luxembourg, with branches, representation and contact offices across Europe, America, Asia and Australia. Business from a number of entities and branches in Ireland, the United Kingdom, the Netherlands, Denmark, France, Germany, Italy and Spain are integrated into the Luxembourg carriers. Certain of our EU and other European business not currently included in our EU branches or legal entities will continue to be written by our Zurich carriers.

In Luxembourg, insurance and reinsurance companies are subject to prudential supervision by the Commissariat aux Assurances (the "**CAA**") under the law on the insurance sector dated December 7, 2015 (as amended, the "**Insurance Sector Law**"). The Insurance Sector Law is supplemented by CAA Regulation 15/03 dated December 7, 2015, as amended, relating to insurance and reinsurance undertakings and circular letters issued by the CAA. Insurance and reinsurance businesses in Luxembourg are regulated activities subject, in principle, to authorization from the minister responsible for the supervision of private insurance.

As an EU member state, Luxembourg applies Solvency II to reinsurers. As incorporated and licensed reinsurance company, SRE fully benefits from the EU passport principle – the freedom to conduct cross-border business or to establish branches in all EEA member states under the home country control of the CAA.

Reinsurance contracts are specifically excluded from the Law of 27 July 1997 on the insurance contract, as amended.

Other Regulation

Certain other entities through which we conduct non-insurance business are regulated under the applicable financial services regulations in their respective jurisdictions. Swiss Re Capital Markets Limited, located in London, England, is a company authorized and regulated in the conduct of its investment business in the United Kingdom by the FCA and is entered in the FCA's Register. Swiss Re Capital Markets Europe is authorised and regulated in Luxembourg. Swiss Re Capital Markets Corporation, located in New York City, is a member of the Financial Industry Regulatory Authority ("**FINRA**") in the United States and the Securities Investor Protection Corporation, and is regulated by FINRA.

As we move into new and high growth markets, particularly in Asia, we will continue to monitor local regulatory requirements and will take the necessary steps to comply.

Board of Directors and Senior Management

Under SRL's Articles of Association, the SRL Board of Directors is to consist of at least seven members. The directors are to be elected at a general meeting of shareholders for a term of office until completion of the next ordinary general meeting of shareholders. Directors whose term of office has expired are immediately eligible for re-election. The business address of the members of the SRL Board of Directors is Mythenquai 50/60, 8022 Zurich, Switzerland.

The SRL Board of Directors is constituted as follows:

Name	Birth Year	Position
Walter B. Kielholz	1951	Chairman
Renato Fassbind	1955	Vice Chairman
Raymond K.F. Ch'ien	1952	Director
Jacques de Vaucleroy	1961	Director
Karen Gavan	1961	Director
Trevor Manuel	1956	Director
Jay Ralph	1959	Director
Joerg Reinhardt	1956	Director
Eileen Rominger	1954	Director
Philip K. Ryan	1956	Director
Sir Paul Tucker	1958	Director
Susan L. Wagner	1961	Director
Larry Zimpleman	1951	Director

Biographical Information

Walter B. Kielholz, Chairman, non-executive director. Walter B. Kielholz was first elected to the board of directors of SRZ (the "**SRZ Board of Directors**") in 1998 and was appointed to the Board of Directors in 2011 (in connection with the formation of SRL). He was Vice Chairman from 2003 to April 2009 and has been Chairman of the SRL Board of Directors since May 2009. He chairs the Swiss Re Group' Chairman's and Governance Committee.

Mr. Kielholz began his career at the General Reinsurance Corporation, Zurich, in 1976 where he held several positions in the United States, the United Kingdom and Italy before assuming responsibility for the company's European marketing. In 1986, he joined Credit Suisse, where he was responsible for relationships with large insurance groups. He joined Swiss Re in 1989 where he became an Executive Board member in 1993 and was Chief Executive Officer from 1997 to 2002. He was also a member of the Board of Directors of Credit Suisse Group AG from 1999 to 2014 and served as Chairman from 2003 to 2009. Mr. Kielholz is Vice Chairman of the Institute of International Finance, a member of the European Financial Services Round Table and Chairman of the Zurich Art Society.

Mr. Kielholz is a Swiss citizen. He graduated with a business finance and accounting degree from the University of St. Gallen, Switzerland.

Renato Fassbind, Vice Chairman, non-executive and lead independent director. Renato Fassbind was first elected to the SRZ Board of Directors and the SRL Board of Directors in 2011. He was appointed as Vice Chairman in 2012 and as Lead Independent Director in 2014. He chairs the Swiss Re Group Audit Committee and is a member of the Swiss Re Group Chairman's and Governance Committee and the Swiss Re Group Compensation Committee.

After two years with Kunz Consulting AG, Mr. Fassbind joined F. Hoffmann-La Roche AG in 1984, becoming Head of Internal Audit in 1988. From 1986 to 1987, he worked as a public accountant with Peat Marwick in New Jersey, United States. In 1990, he joined ABB Ltd as Head of Corporate Staff Audit and, from 1997 to 2002, was Chief Financial Officer and member of the Executive Committee. In 2002, he joined Diethelm Keller Holding Ltd as Group Chief Executive Officer. From 2004 to 2010, he was Chief Financial Officer and member of the Executive Board of Credit Suisse Group AG. Mr. Fassbind is a member of the Boards of Directors of Nestlé S.A. and Kühne + Nagel International Ltd.

Mr. Fassbind is a Swiss citizen. He graduated with a PhD in economics from the University of Zurich, Switzerland, and as Certified Public Accountant in Denver, United States.

Raymond K. F. Ch'ien, Non-executive and independent director. Raymond K.F. Ch'ien was first elected to the SRZ Board of Directors in 2008 and appointed to the SRL Board of Directors in 2011 (in connection with the formation of SRL). He is a member of the Swiss Re Group Compensation Committee and the Swiss Re Group Investment Committee.

Raymond K.F. Ch'ien was Group Managing Director of Lam Soon Hong Kong Group from 1984 to 1997, Chairman of CDC Corporation from 1999 to 2011 and Chairman of MTR Corporation Limited from 2003 to 2015. He is Chairman of the Board of Directors of Hang Seng Bank Ltd and a member of the Boards of Directors of China Resources Power Holdings Company Ltd and the Hong Kong and Shanghai Banking Corporation Ltd. Mr. Ch'ien is also Honorary President of the Federation of Hong Kong Industries.

Mr. Ch'ien is a Chinese citizen. He graduated with a PhD in economics from the University of Pennsylvania, United States.

Jacques de Vaucleroy, Non-executive and independent director. Jacques de Vaucleroy was first elected to the SRZ Board of Directors in September 2016 and to the SRL Board of Directors in April 2017. He chairs the Swiss Re Group Compensation Committee and is a member of the Swiss Re Group Chairman's and Governance Committee and the Swiss Re Group Investment Committee.

Mr. de Vaucleroy was a member of the management committee of AXA Group from 2010 to 2016, serving as CEO for North, Central and Eastern Europe and CEO of Global Life & Savings. He also held a number of positions on boards of directors and supervisory boards of AXA companies. Before that, Mr. de Vaucleroy spent 24 years at ING, where he held senior roles in banking, asset management and insurance. He was a member of the executive board of ING Group from 2006 to 2009, in charge of insurance and asset management in Europe. Mr. de Vaucleroy currently serves as vice chairman of the board of directors of Ahold Delhaize, as well as a member of the boards of directors of Colt Technology Services Group plc, Fidelity International Limited and Zabka Polska SA. He also serves as a member of the board of directors of the Simõn I. Patiño Foundation and the TADA non-profit organization.

Mr. de Vaucleroy is a Belgian citizen. He graduated with a Master in Law from the Université Catholique de Louvain, Belgium and a Master in Business Law from the Vrije Universiteit Brussel, Belgium.

Karan Gavan, Non-executive and independent director. Karen Gavan was elected to the SRZ Board of Directors in March 2018 and the SRL Board of Directors in April 2018. She is a member of the Swiss Re Group Audit Committee.

Ms. Gavan started her career in finance roles at Prudential Insurance, Imperial Life and Canada Life. She joined Transamerica Life Canada in 1992 as Chief Financial Officer and served as Executive Vice President and Chief Financial Officer of Transamerica Life Canada/AEGON Canada between 2000 and 2002, and Chief Operating Officer between 2003 and 2005. Until her retirement in November 2016, she served for five years as President and Chief Executive Officer of Economical Insurance. Ms. Gavan is a former member of the boards of directors of Green Shield Canada (2005-2011), TBayTel (2007-2011) and Bahamas First Holdings (2011-2016). She has been a board member of Mackenzie Financial Corporation since 2007 and a board member of Swiss Re America Holding Corporation since 2015.

Ms. Gavan is a Canadian citizen. She graduated with an Honours Bachelor of Commerce from the Lakehead University, Canada. She is a Fellow, Institute of Chartered Accountants of Ontario, Canada.

Trevor Manuel, Non-executive and independent director. Trevor Manuel was first elected to the SRZ Board of Directors and the SRL Board of Directors in 2015. He is a member of the Swiss Re Group Audit Committee and the Swiss Re Group Investment Committee.

Mr. Manuel served in the South African government for more than 20 years, including as Finance Minister from 1996 to 2009 and as Minister in the presidency responsible for the National Planning Commission, from 2009 to 2014. He held positions at international bodies, including the United Nations Commission for Trade and Development, the World Bank, the International Monetary Fund, the G20, the African Development Bank and the Southern African Development Community. Trevor Manuel is Chairman of the Board of Directors of Old

Mutual Group Holdings Ltd, a member of the Board of Directors of Old Mutual plc, Deputy Chairman of Rothschild South Africa, Professor Extraordinaire at the University of Johannesburg, Honorary Professor at the University of Cape Town and a Trustee of the Allan Gray Orbis Foundation Endowment.

Mr. Manuel is a South African citizen. He holds a National Diploma in Civil and Structural Engineering from the Peninsula Technikon, South Africa, and completed an Executive Management Programme at the Stanford University, United States.

Jay Ralph, Non-executive and independent director. Jay Ralph was first elected to the SRZ Board of Directors in March 2017 and to the SRL Board of Directors in April 2017. He is a member of the Swiss Re Group Finance and Risk Committee.

Mr. Ralph was a member of the Board of Management of Allianz SE from 2010 to 2016, where he also served on a number of boards of directors of Allianz SE subsidiaries. He was CEO of Allianz Re from 2007 to 2009, and President and CEO of Allianz Risk Transfer from 1997 to 2006. Before joining Allianz, he was auditor at Arthur Andersen & Company, investment officer at Northwestern Mutual Life Insurance Company, President at Centre Re Bermuda Ltd and a member of the executive board of Zurich Re. Mr. Ralph currently serves as a member of the Siemens Pension Advisory Board and as a member of the Board of Trustees of the Georgia O'Keeffe Museum.

Mr. Ralph is an American and Swiss citizen. He graduated with an MBA in Finance and Economics from the University of Chicago, United States and a BBA in Finance and Accounting from the University of Wisconsin, United States. He is also a Certified Public Accountant (CPA), a Chartered Financial Analyst (CFA) and Fellow, Life Management Institute (FLMI).

Joerg Reinhardt, Non-executive and independent director. Joerg Reinhardt was first elected to the SRZ Board of Directors in March 2017 and to the SRL Board of Directors in April 2017. He is a member of the Swiss Re Group Compensation Committee.

Mr. Reinhardt has been Chairman of the Board of Directors of Novartis since 2013. He is also Chairman of the Board of Trustees of the Novartis Foundation. He was Chairman of the Board of Management and the Executive Committee of Bayer HealthCare from 2010 to 2013 and, prior to that, held various executive positions at Novartis. He was Chief Operating Officer from 2008 to 2010, headed the Vaccines and Diagnostics Division from 2006 to 2008 and held a number of other senior roles, primarily in research and development in the preceding years. Mr. Reinhardt has also served as Chairman of the Board of the Genomics Institute of the Novartis Research Foundation from 2000 to 2010, as a member of the Supervisory Board of MorphoSys AG in Germany from 2001 to 2004 and as a member of the Board of Directors of Lonza Group AG in Switzerland from 2012 to 2013. He started his career at Sandoz Pharma Ltd., a predecessor company of Novartis, in 1982.

Mr. Reinhardt is a German citizen. He graduated with a PhD in pharmaceutical sciences from Saarland University, Germany.

Eileen Rominger, Non-executive and independent director. Eileen Rominger was elected to the SRZ Board of Directors in March 2018 and the SRL Board of Directors in April 2018. She is a member of the Swiss Re Group Investment Committee.

Ms. Rominger began her career at Oppenheimer Capital, where she worked for 18 years as an equity portfolio manager, serving as a Managing Director and a Member of the Executive Committee. She joined Goldman Sachs Asset Management in 1999 where she held a number of senior leadership positions, becoming the company's Global Chief Investment Officer in 2008. She subsequently served from 2011 to 2012 as the Director of the Division of Investment Management at the United States Securities and Exchange Commission, where she led a team that implemented regulatory policy for mutual funds and federally registered investment advisors. From 2013 to 2018, Ms. Rominger held roles including being a senior advisor at CamberView Partners, a provider of advice to public companies on shareholder engagement and corporate governance.

Ms. Rominger is a U.S. citizen. She holds an M.B.A. in Finance from the Wharton Graduate School of Business, University of Pennsylvania, United States, and a bachelor's degree in English from Fairfield University, United States.

Philip K. Ryan, Non-executive and independent director. Philip K. Ryan was first elected to the SRZ Board of Directors and the SRL Board of Directors in 2015. He chairs the Swiss Re Group Finance and Risk Committee and is a member of the Swiss Re Group Chairman's and Governance Committee and the Swiss Re Group Audit Committee.

Mr. Ryan held various positions with Credit Suisse from 1985 to 2008, including Chairman of the Financial Institutions Group, Chief Financial Officer of Credit Suisse Group Ltd, Chief Financial Officer of Credit Suisse Asset Management and Managing Director of CSFB Financial Institutions Group. He was Chief Financial Officer of the Power Corporation of Canada from 2008 to 2012. In that capacity, he was a director of IGM Financial Inc., Great-West Lifeco Inc., and several of their subsidiaries, including Putnam Investments. Mr. Ryan is Operating Partner at Corsair Capital, Advisory Board member of NY Green Bank and member of the Smithsonian National Board.

Mr. Ryan is a U.S. citizen. He earned an MBA from the Kelley School of Business, Indiana University, United States, and a Bachelor of Industrial Engineering from the University of Illinois, United States.

Sir Paul Tucker, Non-executive and independent director. Sir Paul Tucker was first elected to the SRZ Board of Directors and the SRL Board of Directors in 2016. He is a member of the Swiss Re Group Finance and Risk Committee and the Swiss Re Group Investment Committee.

Sir Paul Tucker was the Deputy Governor of the Bank of England from 2009 to 2013. He held various senior roles at the Bank of England from 1980 onwards, including as a member of the Monetary Policy Committee, Financial Policy Committee, Prudential Regulatory Authority Board and Court of Directors. He also served as a member of the Steering Committee of the G20 FSB and as a member of the Board of the Bank for International Settlements. Sir Paul Tucker is Chairman of the Systemic Risk Council, and a research fellow at the Harvard Kennedy School of Government. He is also a member of the board of the Financial Services Volunteers Corps, a member of the Advisory Committee of Autonomous Research, Senior Fellow at the Harvard Center for European Studies, Governor of the Ditchley Foundation and President of the National Institute of Economic and Social Research.

Sir Paul Tucker is a British citizen. He graduated from Trinity College, Cambridge, UK, with a BA in Mathematics and Philosophy. In 2014, he was granted a knighthood for his services to central banking.

Susan L. Wagner, Non-executive and independent director. Susan L. Wagner was first elected to the SRZ Board of Directors and the SRL Board of Directors in 2014. She chairs the Swiss Re Group Investment Committee and is a member of the Swiss Re Group Chairman's and Governance Committee and the Swiss Re Group Finance and Risk Committee.

Ms Wagner is a co-founder of BlackRock, where she served as Vice Chairman and a member of the Global Executive and Operating Committees before retiring in 2012. Over the course of her nearly 25 years at BlackRock, she served in several roles such as Chief Operating Officer, Head of Strategy, Corporate Development, Investor Relations, Marketing and Communications, Alternative Investments and International Client Businesses. Prior to founding BlackRock, she was a Vice President at Lehman Brothers supporting the investment banking and capital markets activities of mortgage and savings institutions. Ms Wagner serves on the Boards of Directors of Apple Inc., BlackRock, Inc. and Color Genomics, Inc. and is a member of the Board of Trustees of Wellesley College.

Ms Wagner is a U.S. citizen. She graduated with a BA in English and economics from Wellesley College, United States, and earned an MBA in finance from the University of Chicago, United States.

Larry Zimpleman, Non-executive and independent director. Larry Zimpleman was elected to the SRZ Board of Directors in March 2018 and the SRL Board of Directors in April 2018. He is a member of the Swiss Re Group Finance and Risk Committee.

Mr. Zimpleman started his career in 1971 as actuarial intern at The Principal Financial Group, an investment management company that offers insurance solutions, asset management and retirement services to individual and institutional clients. From 1976 to 2006 he held various senior management and leadership positions at The Principal. He became President and Chief Executive Officer in 2008 and Chairman in 2009. In August 2015, Mr. Zimpleman stepped down as President and CEO. He retired from the board of directors in May 2016.

Mr. Zimpleman is a U.S. citizen. He graduated with a Bachelor of Science from the Drake University, Des Moines, Iowa, United States. and holds an MBA from the same university. He is also a Fellow, Society of Actuaries, United States.

The responsibility for managing our operations resides with our Swiss Re Group EC. The members of the Swiss Re Group EC are appointed by the SRL Board of Directors. The business address of the members of the Swiss Re Group EC is Mythenquai 50/60, 8002 Zurich, Switzerland.

The Swiss Re Group EC is constituted as follows:

Name	Birth Year	Position
Christian Mumenthaler..........	1969	Group Chief Executive Officer
Andreas Berger.....................	1966	Chief Executive Officer Corporate Solutions
John R. Dacey	1960	Group Chief Financial Officer
Guido Fürer	1963	Group Chief Investment Officer
Russell Higginbotham	1967	Chief Executive Officer Reinsurance EMEA /Regional President EMEA
Thierry Léger	1966	Chief Executive Officer Life Capital
Moses Ojeisekhoba	1966	Chief Executive Officer Reinsurance
Jayne Plunkett	1970	Chief Executive Officer Reinsurance Asia/Regional President Asia
Patrick Raaflaub	1965	Group Chief Risk Officer
Edouard Schmid	1964	Group Chief Underwriting Officer
J. Eric Smith	1957	Chief Executive Officer Swiss Re Americas/Regional President Americas
Thomas Wellauer(1)	1955	Group Chief Operating Officer

(1) Will retire effective June 30, 2019.

Biographical Information

Christian Mumenthaler, Group Chief Executive Officer. Christian Mumenthaler, a Swiss citizen, received a PhD in Physics at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland. He started his career in 1997 as an associate at the Boston Consulting Group before joining Swiss Re in 1999, where he was responsible for key company projects. In 2002, he established and headed the Group Retro and Syndication unit. Christian Mumenthaler served as Group Chief Risk Officer between 2005 and 2007. He was appointed Head of Life & Health in the (Re)Insurance Products area in September 2007 and was a member of SRZ's Management Board. He was appointed to the Swiss Re Group EC as Chief Marketing Officer Reinsurance effective January 1, 2011. Effective October 21, 2011, he became Chief Executive Officer of the Reinsurance Business Unit, and became the Swiss Re Group Chief Executive Officer effective July 1, 2016. His commitments in organizations outside Swiss Re include board membership in the Geneva Association, economiesuisse, the Society for the Promotion of the Institute of Insurance Economics in St. Gallen and the Swiss American Chamber of Commerce.

Andreas Berger, Chief Executive Officer Corporate Solutions. Andreas Berger, a German citizen born in 1966, holds a Master's Degree in Law and Business Administration from the Justus Liebig University in Giessen, Germany. He started his insurance career in 1995 as a leadership trainee at Gerling Group. He held several management roles there, followed by various leadership positions at the Boston Consulting Group, before returning to Gerling in 2004 as Head of Commercial Business and International Programs and Affinity Business. When Allianz Global Corporate & Specialty SE (AGCS) was created in 2006, Andreas Berger became its Global Head of Market Management & Communication. In this newly-created position, he established an overall market management function for the corporate client segment and served as AGCS's spokesperson. In 2009, he was appointed Chief Executive Officer, Regional Unit London of AGCS. His areas of responsibility included the United Kingdom, Ireland, South Africa, the Middle East and Benelux. In 2011 Andreas Berger joined the AGCS Board of Management as Chief Regions & Market Officer (Central & Eastern Europe, Mediterranean, Africa and Asia). In addition, he assumed responsibility for the Global Broker Channel Distribution for the Allianz Group. Andreas Berger joined Swiss Re in March 2019 as Chief Executive Officer Corporate Solutions and member of the Swiss Re Group EC.

John R. Dacey, Group Chief Financial Officer. John R. Dacey, an American citizen, holds a Bachelor of Arts in Economics from Washington University in St Louis, United States and a Master in Public Policy from Harvard University in Cambridge, United States. He started his career in 1986 at the Federal Reserve Bank of

New York. From 1990 to 1998, he was a consultant and subsequently Partner at McKinsey & Company. He joined Winterthur Insurance in 1998 as head of corporate development, and served as Chief Financial Officer from 2000 to 2004 as well as a member of its Group Executive Board until 2007. From 2005 to 2007, he served as Chief Strategy Officer and a member of Winterthur Insurance's risk and investment committees. He joined AXA in 2007 as Group Regional Chief Executive Officer and Group Vice Chairman for Asia-Pacific, as well as member of their Group Executive Committee. John R. Dacey joined Swiss Re in October 2012 and was appointed Group Chief Strategy Officer and member of the Swiss Re Group EC in November 2012. He also served as Chairman Admin Re® from November 2012 to May 2015. John R. Dacey was appointed Group Chief Financial Officer with effect from April 1, 2018.

Guido Fürer, Group Chief Investment Officer. Guido Fürer, a Swiss citizen, holds a Master in Economics and a PhD in Financial Swiss Re Group Risk Management from the University of Zurich, Switzerland, and an Executive MBA from INSEAD, Fontainebleau, France. Guido Fürer commenced his career at Swiss Bank Corporation/ O'Connor & Associates in 1990. During the following seven-year period, he held leading positions in option trading and at its Capital Market division in Chicago, New York, London and Zurich. Guido Fürer joined Swiss Re in 1997 as Managing Director at Swiss Re New Markets, focusing on alternative risk transfer. From 2001 to 2004, he worked for Swiss Re's Private Equity unit with responsibility for the European strategic participations. In 2004, he joined Group Asset Management, first taking over responsibility for tactical asset allocation prior to assuming the role of Head of Swiss Re's CIO Office, with responsibility for strategic asset allocation, and additionally as Chief Investment Officer for the Business Units Reinsurance and Corporate Solutions. Guido Fürer has led Group Asset Management since his appointment as Group Chief Investment Officer and member of the Swiss Re Group EC in November 2012. His commitments in organizations outside Swiss Re include board membership in the FWD Group.

Russell Higginbotham, Chief Executive Officer Reinsurance EMEA /Regional President EMEA. Russel Higginbotham, a British citizen born in 1967, holds a BA (Hons) Business from the University of Hertfordshire, UK and an MBA from Henley Management College, UK. He started his career 1986 with a UK life insurer. As from 1991 he worked as a Senior Marketing Analyst for Munich Re. Russell Higginbotham joined Swiss Re in 1995 and served in various roles in the Life & Health Reinsurance development and strategy teams. Between 2002 and 2005 he was Life & Health Country Manager for Japan and subsequently for South Korea. In 2006 he moved to Sydney and served as Chief Executive Officer of Swiss Re's Australia and New Zealand operations. Between 2010 and 2015 he assumed the role of Chief Executive Officer Reinsurance UK & Ireland, based in London, and was appointed Head of Life & Health Products Reinsurance in 2016. On September 1, 2018, he was appointed Chief Executive Officer Reinsurance EMEA, Regional President EMEA and member of the Swiss Re Group EC.

Thierry Léger, Chief Executive Officer Life Capital. Thierry Léger, a French and Swiss citizen, holds an Executive MBA from the University of St.Gallen, Switzerland, as well as a Master in Civil Engineering from the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland. He started his career in the civil construction industry before joining Swiss Re as an engineering underwriter in 1997. In 2001, Thierry Léger moved to Swiss Re New Markets, providing non-traditional solutions to insurance clients. Between 2003 and 2005 he served as a member of Swiss Re New Markets' executive team in France, heading the sales team. From 2006, Thierry Léger assumed increasing responsibility for Swiss Re's largest clients, ultimately becoming the head of the newly-created Globals Division in 2010 and a member of the Swiss Re Group Management Board. In 2013 Thierry Léger was appointed head of Life & Health Products Reinsurance. As of January 2016, he was appointed Chief Executive Officer Life Capital and member of the Swiss Re Group EC.

Moses Ojeisekhoba, Chief Executive Officer Reinsurance. Moses Ojeisekhoba, a Nigerian and British citizen, holds a Bachelor in Statistics from the University of Ibadan in Nigeria, and a Master in Management from the London Business School in the United Kingdom. He started his career in insurance as a registered representative and agent of The Prudential Insurance Company of America in 1990. From 1992 to 1996, he served as a Risk and Underwriting Manager at Unico American Corporation, subsequently joining the Chubb Group of Insurance Companies as regional Underwriting Manager and, in 1999, was appointed Corporate Product Development Manager in New Jersey. Moses Ojeisekhoba thereafter moved to London as Strategic Marketing Manager for Chubb Europe. In 2002, he was appointed International Field Operations Officer for Chubb Personal Insurance before becoming Head Asia Pacific in 2009, a position he remained in until he joined Swiss Re. Moses Ojeisekhoba joined Swiss Re in February 2012 and was appointed Chief Executive Officer Reinsurance Asia, Regional President Asia and member of the Swiss Re Group EC in March 2012. On July 1, 2016, Moses Ojeisekhoba was appointed as Chief Executive Officer Reinsurance.

Jayne Plunkett, Chief Executive Officer Reinsurance Asia. Jayne Plunkett, an American citizen, has a Bachelor in Business Administration from Drake University in the United States. She started her career at John Deere Insurance Company in 1992, where she held various positions in the Commercial Lines segment in Property and Casualty. In 1999 she joined GEIS, where she served as Insurance Pricing Team Leader, Deputy Chief Reserving Actuary, Head of Casualty Risk Management, and Head of Planning and Analysis. Following the acquisition of GEIS by Swiss Re in 2006, Jayne Plunkett joined Swiss Re as Head of the Kansas City Hub for Property & Casualty. From 2008 to 2012 she worked in Asia as Head of Casualty Underwriting for the region. In 2013 she assumed the global position as Head Casualty Reinsurance, also managing the unit dealing with large and complex transactions for Property & Casualty Reinsurance. On July 1, 2016, Jayne Plunkett was appointed as Chief Executive Officer Reinsurance Asia, Regional President Asia and member of the Swiss Re Group EC. Jayne Plunkett is a Fellow of the Casualty Actuarial Society and a member of the American Academy of Actuaries. Additionally, she was named a Young Global Leader of the World Economic Forum in 2010.

Patrick Raaflaub, Group Chief Risk Officer. Patrick Raaflaub, a Swiss and Italian citizen, holds a PhD in political science from the University of St. Gallen, Switzerland. He began his career as an economist at Credit Suisse and subsequently became a founding member of a consulting start-up and research fellow at the University of St. Gallen. He joined Swiss Re in 1994 and was appointed Chief Financial Officer of Swiss Re Italia SpA in 1997. Patrick Raaflaub was appointed Divisional Controller Americas Division from 2000. He served as Head of Finance Zurich from 2003, then Regional Chief Financial Officer Europe and Asia from 2005. From 2006, he served as Head of Group Capital Management at Swiss Re, where he was responsible for capital management at Group level and global regulatory affairs. In 2008 he joined the Swiss Financial Markets Supervisory Authority FINMA as Chief Executive Officer. Patrick Raaflaub returned to Swiss Re as Group Chief Risk Officer and member of the Swiss Re Group EC as of September 2014.

Edouard Schmid, Group Chief Underwriting Officer. Edouard Schmid, a Swiss citizen, holds a Master's Degree in Physics from the Swiss Federal Institute of Technology (ETH), in Zurich, Switzerland. He joined Swiss Re in 1991 as a risk analyst, developing catastrophe models and supporting property catastrophe underwriting on a global basis. Since 1996, Mr. Schmid was a team leader in the Cat Perils unit, until he was appointed as Head Cat Perils & Retrocession in 2002. From 2003 to 2008, he was based in Hong Kong as Chief Underwriter Property & Specialty Asia. He returned to Zurich in 2008 and served as Head Property & Casualty Risk and Actuarial Management, and, concurrently, as Chief Risk Officer Corporate Solutions since 2011. In May 2012 he assumed the role of Head Property & Specialty Reinsurance. Edouard Schmid was appointed Group Chief Underwriting Officer and member of the Swiss Re Group EC as of July 2017.

J. Eric Smith, Chief Executive Officer Swiss Re Americas. J. Eric Smith, an American citizen, holds an MBA from the Kellogg Graduate School of Management, United States, and a Bachelor in Finance from the University of Illinois, United States. He gained knowledge of the property and casualty business serving in various roles at Country Financial for more than 20 years before joining Allstate Financial Services in 2003, where he rose to the rank of President, Financial Services. He moved to USAA in 2010 as President of Life Insurance Co. In July 2011, J. Eric Smith joined Swiss Re as Chief Executive Officer Swiss Re Americas and member of the Swiss Re Group Management Board. He was appointed Regional President Americas and member of the Swiss Re Group EC in January 2012.

Thomas Wellauer, Group Chief Operating Officer. Thomas Wellauer, a Swiss citizen, holds a PhD in Systems Engineering from the Swiss Federal Institute of Technology (ETH), in Zurich, Switzerland, as well as a Master of Business Economics from the University of Zurich, Switzerland. He started his career with McKinsey & Company, specializing in the financial services and pharmaceutical industry sectors, and was elected Partner in 1991 and Senior Partner in 1996. In 1997, he was named Chief Executive Officer of the Winterthur Insurance Group, which was later acquired by Credit Suisse. At Credit Suisse, he was a member of the Group Executive Board, initially responsible for the group's insurance business before becoming Chief Executive Officer of the Financial Services division in 2000. From 2003 to 2006, Thomas Wellauer headed the global turnaround project at Clariant. In 2007, he joined Novartis as Head of Corporate Affairs and became member of the Executive Committee of Novartis. From April 2009 until September 2010, he was a member of the Supervisory Board of Munich Re. Thomas Wellauer joined Swiss Re in October 2010 as Group Chief Operating Officer and member of the Swiss Re Group EC.

In addition, Swiss Re has Executive Committees for each of the three Business Units. The Executive Committees have, subject to the responsibilities of SRL, and the board of directors and the chief executive officer of the relevant Business Unit, overall responsibilities for managing matters relevant to the Business Unit.

The following are the members of the Executive Committee for SRZ and the Reinsurance Business Unit:

Name	Birth Year	Position
Moses Ojeisekhoba	1966	Chief Executive Officer
Gerhard Lohmann	1966	Chief Financial Officer
Jonathan Isherwood	1966	Head Globals
Russell Higginbotham..........	1967	Chief Executive Officer Reinsurance EMEA /Regional President EMEA
J. Eric Smith	1957	Chief Executive Officer Americas
Jayne Plunkett......................	1970	Chief Executive Officer Asia
Kaspar Mueller	1973	Chief Operations Officer
Mike Mitchell	1966	Head Property & Specialty Underwriting
Nicola Parton	1973	Head Property & Casualty Business Management
Jason Richards	1969	Head Casualty Underwriting
Paul Murray	1970	Head Life & Health Products
James Shepherd	1969	Head Life & Health Business Management

Biographical Information

Moses Ojeisekhoba, Chief Executive Officer Reinsurance. See above.

Gerhard Lohmann, Chief Financial Officer Reinsurance. Gerhard Lohmann, a Swiss and German citizen, holds a PhD in economics from the University of Fribourg in Switzerland and is also a Wharton alumni. Gerhard Lohmann joined Swiss Re from Credit Suisse where he held various senior positions, both in the Asset Management division as well as in the Corporate & Retail and in the Private Bank. In Asset Management, he was the CFO of Asset Management globally from 2005 to 2009, and he was the Chief Operating Officer of the EMEA region prior to joining Swiss Re. Prior to his career at Credit Suisse, Gerhard Lohmann was a Senior Management Consultant for PricewaterhouseCoopers where he focused on Value Based Management, finance transformation projects, business restructuring and post-merger integration. Gerhard Lohmann was appointed as Chief Financial Officer of the Reinsurance business unit at Swiss Re with effect from June 1, 2012. He is also the CFO of Swiss Re's main insurance carrier, Swiss Re Zurich limited (SRZ).

Jonathan Isherwood, Head Globals Reinsurance. Jonathan Isherwood, a British citizen, holds a M.A. in economics from Cambridge University in the United Kingdom. He started his career at Ernst & Young in 1991. He moved to GE Capital in 1994 as an audit/consulting leader. In 2000, Jonathan Isherwood joined GEIS to build the Swiss Re Group Risk Management team and thereafter led the Global Property Division. Thereafter, in 2005, he became CEO of GE Frankona AG and Chairman of the Board ERC Copenhagen. In addition, he had global responsibility as President of Product Strategy of GEIS. Jonathan Isherwood joined Swiss Re as Head of Product Integration following the acquisition of GEIS by Swiss Re in 2006. He led the Claims, Accounting & Liability Management (CALM) division from 2007 to 2013. Jonathan Isherwood was appointed to his current role, where he is responsible for managing client relationships with large insurance clients, with effect from July 1, 2013.

Russell Higginbotham, Chief Executive Officer Reinsurance Europe, Middle East and Africa (EMEA) / Regional President EMEA. See above.

J. Eric Smith, Chief Executive Officer Reinsurance Americas / Regional President Americas. J. Eric Smith, an American citizen, holds a BA degree in finance from University of Illinois and an MBA from Kellogg School of Management at Northwestern University in the United States. J. Eric Smith worked in various roles in property and casualty insurance with Country Financial for more than 20 years, then joined Allstate in 2003 where he rose to the rank of President, Financial Services. He moved to USAA in 2010 as President USAA Life Insurance Co. J. Eric Smith joined Swiss Re in July 2011 as Chief Executive Officer of Reinsurance Americas and as a member of the Group Management Board. He was appointed Regional President Americas and member of the Group Executive Committee in January 2012.

Jayne Plunkett, Chief Executive Officer Reinsurance Asia / Regional President Asia. See above.

Mike Mitchell, Head Property & Specialty Reinsurance. Mike Mitchell, a British citizen, holds a BA from Exeter University in Economics and Politics and is an Associate of the Chartered Insurance Institute in the United Kingdom. He started his professional career in 1987 in client management and underwriting at MS&G Re in London, and has since worked in the industry in Asia as well as Australia and Europe. Mike Mitchell has

been with Swiss Re for 20 years, and has 29 years of reinsurance underwriting experience. He has expertise in developing and managing senior client / broker relationships as well as leading cross cultural and functional teams in multiple offices around the globe. He has led multiple and diverse reinsurance projects at Swiss Re over his tenure at the company. Mike Mitchell is a member of the Australian Nuclear Insurance Pool Pty., a member of the Australian Business and Climate Group and an Advisory Board member at Macquarie University's Risk Frontiers program.

Nicola Parton, Head Property and Casualty Business Management. Nicola Parton, a British and New Zealand citizen, holds a BA/LLB (Hons) degree from University of Auckland, New Zealand. Nicola Parton joined Swiss Re in 2003. During her tenure she has served in various claims leadership roles, including Head of Claims for Swiss Re Corporate Solutions for 6 years. During her time at Corporate Solutions, Nicola Parton led a number of business initiatives to support client retention and portfolio management strategies. She also led the development of the Claims Commitment, an industry-leading claims service approach now viewed as a differentiator in the market. Nicola Parton was appointed Head of Property & Casualty Business Management with effect from December 1, 2017. In this function, Nicola is responsible for managing Swiss Re's global in-force portfolio of business related to property and casualty reinsurance. This includes claims management, technical accounting, portfolio management, run-off, auditing, reinsurance operations and reserving. Previously, she was responsible for leading the implementation of the Primary Lead Strategy for Swiss Re Corporate Solutions.

Jason Richards, Head Casualty Reinsurance. Jason Richards, a British citizen, holds a degree in Business Administration from Bath University in the United Kingdom. Prior to joining Swiss Re in 2006 as part of the acquisition of GEIS, Jason Richards worked for 12 years at GE, where he held a number of leadership positions in many areas of the business including underwriting, corporate development, finance, Six Sigma process improvement, technical accounting and claims. Jason Richards was appointed as Head Casualty Reinsurance with effect from November 1, 2017. In this function, he is responsible for technical underwriting and portfolio management, management of the structured solutions business across Property and Casualty Reinsurance, and leading Swiss Re's client solutions startup across Property & Casualty Reinsurance. Previously, Jason Richards led Swiss Re's in-force portfolio of business related to property and casualty reinsurance. Prior to that, he led the Reinsurance Asset and Liability Management (RLM) department for 6 years, managing Swiss Re's global run-off portfolios as well as the significant reinsurance asset. Additionally, Jason Richards is heavily involved in Swiss Re's activities in the Fintech and Insurtech areas.

Paul Murray, Head Life & Health Products. Paul Murray, a British citizen, holds a Masters with honors in Mathematics from Glasgow University and a post-graduate diploma in Actuarial Science from Heriot Watt University in the United Kingdom. He is also a qualified Fellow of the Faculty of Actuaries. Paul began his career in 1994, progressing through various actuarial roles in Scotland, South Africa and eventually London where he worked for an actuarial consultancy. Since joining Swiss Re in 2003, Paul has worked in a range of markets and roles including leading the Life & Health Products teams in Asia, and the UK, Ireland and Africa. He has been leading an initiative with the UK government to address the systematic issues relating to the delivery of social care. Paul Murray is also a frequent speaker at industry conferences around the globe and contributor to media covering life insurance protection topics. Paul has 20-plus years of experience in the insurance industry, with 15 of them in reinsurance leadership roles. Prior to taking the helm of Life & Health Products, Paul Murray served on the Life & Health Executive, most recently as Chief Pricing Officer and Head of the global Life & Health Products Centre. Paul Murray was appointed as Head Life & Health Products effective December 2018.

James Shepherd, Head Life and Health Business Management. James Shepherd, a British citizen, holds qualifications with the Chartered Insurance Institute and Chartered Institute of Marketing in the UK. James Shepherd started his reinsurance career in 1987 with Victory Re, then ING, ERC and GE before joining Swiss Re. Having held key roles in underwriting, marketing, accounting, contracts, operational risk management, technology and change management, he was part of the GEIS Life & Health Executive Team before co-leading the integration of GE's life and health business into Swiss Re. James Shepherd was appointed as Head Life & Health Business Management with effect from October 2017. In this function, James Shepherd is responsible for managing Swiss Re's inforce portfolio of Life & Health reinsurance business. This includes claims management, technical accounting, portfolio management, run-off, auditing, reinsurance operations and reserving. For the previous six years, James Shepherd was Chief Operating Officer of the Reinsurance business, and his current role continues his membership of the Reinsurance executive team.

Under SRZ's Articles of Association, the SRZ Board of Directors is to consist of at least seven members. The directors are to be elected at a general meeting of shareholders for a term of office until completion of the next general meeting of shareholders. Directors whose term of office has expired are immediately eligible for re-election. The business address of the members of the SRZ Board of Directors is Mythenquai 50/60, 8022 Zurich, Switzerland.

The SRZ Board of Directors is constituted as follows:

Name	Birth Year	Position
Walter B. Kielholz	1951	Chairman
Renato Fassbind	1955	Vice Chairman
Raymond K.F. Ch'ien	1952	Director
Jacques de Vaucleroy	1961	Director
Karen Gavan	1961	Director
Trevor Manuel	1956	Director
Jay Ralph	1959	Director
Joerg Reinhardt	1956	Director
Eileen Rominger	1954	Director
Philip K. Ryan	1956	Director
Sir Paul Tucker	1958	Director
Susan L. Wagner	1961	Director
Larry Zimpleman	1951	Director

Please see biographical information set out above.

Related Party Transactions

SRZ is a wholly owned subsidiary of SRL, and the Guarantor Group forms part of the broader Swiss Re Group. As detailed throughout this Offering Memorandum, while our management team has responsibility for our strategy and our performance, we are an integral part of the Swiss Re Group, decisions regarding liquidity and capital are made at the Swiss Re Group level. See generally, "Risk Factors – Risks Relating to the Swiss Re Group Structure."

The following is a summary of the related party transactions of the Guarantor Group for financial reporting purposes.

Insurance Activities. The Guarantor Group assumes and cedes certain insurance and reinsurance contracts from and to affiliated companies within the Swiss Re Group (*i.e.,* companies in the Life Capital and Corporate Solutions business units) largely through intra-group retrocession arrangements intended to optimize capital efficiency of the entities within the Swiss Re Group. Over half the growth in gross premiums written in 2018 in our Life & Health Reinsurance segment was driven by the positive impact of intra-group retrocession arrangements, including $1.2 billion under arrangements with the Life Capital Business Unit.

Investment Activities. The Guarantor Group has conducted various investing activities with affiliated companies in the Swiss Re Group, including loans, funding agreements and derivatives. As of December 31, 2018, senior loans of $3.3 billion and a subordinated loan of $430 million to affiliated companies were outstanding. As of December 31, 2018, the Guarantor Group's investment in mortgages and other loans included $314 million of loans due from employees, and $181 million due from officers. These loans generally consist of mortgages offered at variable and fixed interest rates.

Financing Activities. The Guarantor Group enters into various financing activities where it borrows funds from affiliated companies in the Swiss Re Group. SRZ has entered into three subordinated funding facilities with SRL under which SRZ has the right, among others, to issue subordinated notes to SRL at any time, up to an aggregate of $1.9 billion. For its various rights, SRZ owes SRL an unconditional fixed commitment fee on the total facility amount, payable in annual instalments. Annually, SRZ receives a partial reimbursement of the commitment fee on the undrawn facility amount. As of December 31, 2018, the facilities were undrawn.

Operating Transactions. The Guarantor Group enters into various arrangements with affiliated companies in the Swiss Re Group for the provision of services.

See generally note 13 to the Guarantor Group Financial Statements.

In January 2017, the Guarantor Group sold three primary life and health insurance carriers to the Life Capital Business Unit.

Terms and Conditions of the Notes

The €750,000,000, Guaranteed Subordinated Fixed Rate Reset Step-up Callable Notes with a scheduled maturity in 2050 (each a "Note", and together, the "Notes", which expression shall in these Conditions, unless the context otherwise requires, include any Additional Notes (as defined below) issued pursuant to Condition 13 and forming a single series with the Notes) of Swiss Re Finance (Luxembourg) S.A., a public limited liability company (*société anonyme*) incorporated and existing under the laws of Luxembourg, with its registered office at 2A, rue Albert Borschette, L-1246 Luxembourg and registered with the Luxembourg trade and companies register under number B90713 (the "Issuer") will be issued subject to and with the benefit of an agency agreement dated on or about March 21, 2019, made between the Issuer, Swiss Reinsurance Company Ltd (the "Guarantor") and the agents named therein (such agreement as amended and/or supplemented and/or restated from time to time, the "Agency Agreement").

The payment obligations of the Issuer in respect of the Notes are irrevocably guaranteed on a subordinated basis by the Guarantor pursuant to a subordinated guarantee dated on or about March 21, 2019 (as amended, restated and/or supplemented from time to time, the "Subordinated Guarantee").

These Conditions include summaries of, and are subject to, the detailed provisions of the Agency Agreement, which includes the form of the Notes and provisions relating to transfers of Notes, payments in respect of Notes and the replacement of Notes. The Noteholders are entitled to the benefit of, are bound by and are deemed to have notice of all provisions of the Agency Agreement applicable to them. Copies of the Agency Agreement are available for inspection by Noteholders during normal business hours at the specified office of the Agent, the initial specified office of which is set out below.

1. FORM, DENOMINATION AND TRANSFER

(a) The Notes will be issued in an aggregate principal amount of €750,000,000 in minimum denominations of €100,000 and integral multiples of €100,000 in excess thereof on March 21, 2019 (the "Issue Date"). The Registrar will maintain a register of Noteholders reflecting the ownership of the Notes (the "Register").

(b) The Notes will, upon issue, be represented by a global note in registered form (the "Initial Global Note"). On the Issue Date, the Initial Global Note will be deposited with a common depositary and registered in the name of the common depositary or its nominee for the accounts of Euroclear and Clearstream. Any additional Notes that may be issued from time to time in accordance with these Conditions ("Additional Notes") will, upon issue, be represented by additional global notes in registered form (the "Additional Global Notes" and, together with the Initial Global Note, the "Global Notes" and each a "Global Note") and, on their respective issue dates, such Global Notes will be deposited with a common depositary and registered in the name of the common depositary or its nominee for the accounts of Euroclear and Clearstream. Except as set forth in the Agency Agreement, Notes will not be held in definitive form.

Accordingly, so long as the Notes are held in global form, the common depositary for Euroclear and/or Clearstream (or its nominee) will be considered the sole holder of the Global Notes for all purposes under these Conditions and "holders" of beneficial interests in the Global Notes will not be considered the owners or "Noteholders" for any purpose. As such, participants must rely on the procedures of Euroclear and Clearstream and indirect participants must rely on the procedures of the participants through which they own book-entry interests in order to transfer their interests in the Notes or to exercise any rights of Noteholders under these Conditions in accordance with applicable law.

2. STATUS

2.1 Status of the Notes

The Issuer's obligations under the Notes constitute unsecured and subordinated obligations ranking junior to the Issuer's obligations under any Issuer Senior Securities, *pari passu* among themselves and with the Issuer's obligations under any Issuer Parity Securities, and senior to the Issuer's obligations under the Issuer Junior Securities. In the event of the liquidation, dissolution, insolvency, compromise, composition with creditors (*concordat préventif de la faillite*), bankruptcy (*faillite*), controlled

management proceedings (*gestion controlée*), suspension of payment (*sursis de paiement*), provisional administration (*administration provisoire*) or other similar proceeding for the avoidance of insolvency of, or against, the Issuer, the claims of the Noteholders in respect of the Notes will be subordinated to the claims of all Issuer Senior Creditors, so that in any such event no amounts shall be payable in respect of the Notes unless the claims of all Issuer Senior Creditors shall have first been satisfied in full.

The subordination provisions of this Condition 2.1 are governed by, and construed in accordance with, the laws of Luxembourg, and such provisions are irrevocable.

2.2 **Status of the Subordinated Guarantee**

The Guarantor's obligations under the Subordinated Guarantee constitute unsecured and subordinated obligations ranking junior to the Guarantor's obligations under any Guarantor Senior Securities, *pari passu* with the Guarantor's obligations under any Guarantor Parity Securities, and senior to the Guarantor's obligations under the Guarantor Junior Securities. In the event of the liquidation, dissolution, insolvency, compromise or other similar proceeding for the avoidance of insolvency of, or against, the Guarantor, the claims of the Noteholders in respect of the Subordinated Guarantee will be subordinated to the claims of all Guarantor Senior Creditors, so that in any such event no amounts shall be payable in respect of the Subordinated Guarantee unless the claims of all Guarantor Senior Creditors shall have first been satisfied in full.

The subordination provisions of the Subordinated Guarantee are governed by, and construed in accordance with, the substantive laws of Switzerland, and such provisions are irrevocable.

Each Noteholder shall, by virtue of holding a Note, be deemed to have accepted the terms of the Subordinated Guarantee.

2.3 **No Security**

No security of whatever kind is, or will at any time be, provided by the Issuer, the Guarantor or any of their respective affiliates to secure the rights of the Noteholders.

2.4 **No Change to Subordination**

No subsequent agreement may limit the subordination of the Notes or the Subordinated Guarantee pursuant to the provisions set out in this Condition 2.

2.5 **No Right to Set-off**

No Noteholder may set off any claims arising under the Notes in respect of any amount owed to it by the Issuer in respect of, or arising from, the Notes and each Noteholder shall, by virtue of holding a Note, be deemed to have waived all such rights of set-off.

No Noteholder may set off any claims arising under the Subordinated Guarantee in respect of any amount owed to it by the Guarantor in respect of, or arising from, the Subordinated Guarantee and each Noteholder shall, by virtue of holding a Note, be deemed to have waived all such rights of set-off.

The Issuer may not set off any claims arising under the Notes in respect of any amount owed to it by a Noteholder. The Guarantor may not set off any claims arising under the Subordinated Guarantee in respect of any amount owed to it by a Noteholder.

3. **INTEREST**

3.1 **Interest Payments**

(a) Unless previously redeemed, or purchased and cancelled in accordance with these Conditions, and subject to the provisions of this Condition 3, the outstanding Notes shall initially bear interest at a fixed

rate of 2.534% per annum (the "Initial Rate") in the Initial Interest Period and thereafter, in respect of each Interest Period falling within a Reset Period at the relevant Reset Rate of Interest for such Reset Period, payable annually in arrear on April 30 in each year (each, an "Interest Payment Date") commencing April 30, 2019.

(b) The Interest Amount payable in respect of each Interest Period falling within the Initial Interest Period other than the short first Interest Period will be €25.34 per Calculation Amount. The Interest Amount payable in respect of the short first Interest Period will be €2.78 per Calculation Amount. When an Interest Amount is required to be calculated in respect of a period that is less than a full Interest Period, it shall be calculated, per Calculation Amount, by applying the relevant Rate of Interest for such period to the Calculation Amount, multiplying the product by the Day Count Fraction and rounding the resulting figure to the nearest cent (half a cent being rounded upwards).

(c) On each Reset Rate of Interest Determination Date, the Agent or its duly appointed successor (in such capacity, the "Agent Bank") will determine the Reset Rate of Interest for the applicable Reset Period at approximately 11:00 a.m. (Central European time).

(d) The Agent Bank shall, as soon as practicable after 11.00 a.m. (Central European time) on each Reset Rate of Interest Determination Date, but in no event later than the second Business Day thereafter, determine the Interest Amount payable per Calculation Amount on each Interest Payment Date falling within the relevant Reset Period (each a "Reset Rate of Interest Amount").

(e) The Agent shall cause each relevant Reset Rate of Interest and the corresponding Reset Rate of Interest Amount determined by the Agent Bank to be notified to the Issuer, the Guarantor and to each listing authority and/or stock exchange (if any) on which the Notes have then been admitted to listing, trading and/or quotation of which it has been notified by the Issuer or the Guarantor as soon as practicable after such determination but in any event not later than the fourth Business Day following the Reset Rate of Interest Determination Date. Notice thereof shall also promptly be given to the Noteholders in accordance with Condition 12.

(f) All notifications, opinions, determinations, certificates, calculations, quotations and decisions given, expressed, made or obtained for the purposes of the provisions of this Condition 3 by the Agent Bank, will (in the absence of wilful default, bad faith or manifest error) be binding on the Issuer, the Guarantor and the Noteholders and (subject as aforesaid) no liability to the Issuer, the Guarantor or the Noteholders shall attach to the Agent Bank in connection with the exercise or non-exercise by it of its powers, duties and discretions for such purposes.

3.2 **Interest Accrual**

(a) Subject as provided in this Condition 3.2, the Notes shall cease to bear interest from (and including) the Early Redemption Date, the Optional Redemption Date or the Final Maturity Date, as the case may be.

(b) If the Issuer or the Guarantor, as applicable, fails to redeem or repay any Notes when due in accordance with the Conditions on the Optional Redemption Date, Early Redemption Date or Final Maturity Date, as applicable, interest will continue to accrue (both before and after judgment) on the outstanding principal amount of such Notes beyond the Optional Redemption Date, Early Redemption Date or Final Maturity Date, as applicable, up to (but excluding) the day of the actual redemption or repayment of such Notes, as applicable, at the applicable Rate of Interest.

3.3 **Recalculation of Interest**

If a tax deduction or withholding (collectively, a "Tax Deduction") is required by law to be made by the Issuer or the Guarantor in respect of any Interest Amount payable in respect of the Notes or the Subordinated Guarantee, as applicable, and should Condition 6.1(a) (or, in the event of a substitution pursuant to Condition 9, Condition 9(d) read with Condition 6.1(a)) be unlawful for any reason, the applicable Rate of Interest in relation to the Interest Amounts payable for the relevant Interest Period will, subject to the exceptions in Condition 6.1(b) (or, in the event of a substitution pursuant to Condition 9, Condition 9(d) read with Condition 6.1(b)), be the Rate of Interest which would have otherwise been payable for the relevant Interest Period divided by 1 minus the rate (as a fraction of 1)

at which the relevant Tax Deduction is required to be made and the Issuer or the Guarantor, as applicable, will (i) be obligated to pay the relevant Interest Amount on the relevant Interest Payment Date at the adjusted rate in accordance with this Condition 3.3 and (ii) make the Tax Deduction on the recalculated Interest Amount.

Without prejudice to the foregoing, all references to a rate of interest in the Conditions shall be construed accordingly and all provisions in Condition 6 (other than Condition 6.1(a), or, in the event of a substitution pursuant to Condition 9, other than Condition 9(d) read with Condition 6.1(a)) shall apply to the Tax Deduction on the recalculated interest payment (such recalculation is referred to herein as a "Recalculation of Interest").

3.4 **Payment of Interest and Deferral of Interest Payments**

(a) *Interest payments*

On any Interest Payment Date:

(i) if an optional deferral of interest has been elected pursuant to Condition 3.4(b), the provisions of Condition 3.4(b) and Condition 3.4(d) shall apply; or

(ii) if a Required Interest Deferral Event has occurred, the provisions of Condition 3.4(c) and Condition 3.4(d) shall apply.

(b) *Optional deferral of interest payments*

Save to the extent that a Required Interest Deferral Event has occurred, with respect to any Interest Payment Date, as long as, during the six months preceding the relevant Reference Date:

(i) no dividend, other distribution or payment was declared or made in respect of (A) any class of share capital of a Parent or (B) any Issuer Junior Securities or Guarantor Junior Securities (except where such payment was required under the terms of those Issuer Junior Securities or Guarantor Junior Securities, as the case may be);

(ii) no repurchase or acquisition of any class of share capital of a Parent (except where such repurchase or acquisition was made in respect of any share-based compensation plan or where such repurchase or acquisition was made by any member of the Guarantor Group or a Parent Group on the open market in the ordinary course of its routine capital management) or any Issuer Junior Securities or Guarantor Junior Securities was made by any member of the Guarantor Group or a Parent Group, either directly or indirectly; and

(iii) provided that at the relevant time the existence of this Condition 3.4(b)(iii) does not cause the Notes to become Non-Compliant Securities: (A) no dividend, other distribution or payment was declared or made in respect of any Issuer Parity Securities or Guarantor Parity Securities (except where such payment was required under the terms of those Issuer Parity Securities or Guarantor Parity Securities, as the case may be) and (B) no repurchase or acquisition of any Issuer Parity Securities or Guarantor Parity Securities was made by any member of the Guarantor Group or a Parent Group, either directly or indirectly,

the Issuer may elect, in its sole discretion to defer all or a part of the payments of interest that accrued (and, in the case of a partial deferral, such deferral will be made on a *pro rata* basis across all Notes) during the applicable Interest Period to (but excluding) such Interest Payment Date by giving notice in accordance with Condition 12 not less than three Business Days prior to the relevant Interest Payment Date of the amount of the relevant interest payment that shall be deferred (which notice will be irrevocable); in this case, such deferred interest will constitute "Optionally Deferred Interest".

(c) *Required deferral of interest payments*

The Issuer will be required to defer payment of any Interest Amount or Solvency Shortfall, as

applicable, if, in respect of an Interest Payment Date, a Solvency Event has occurred and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) or would occur as a result of such payment (a "Required Interest Deferral Event").

For the avoidance of doubt, if on an Interest Payment Date a Solvency Event (i) has occurred and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) or (ii) would occur as a result of payment of the relevant Interest Amount, the Issuer will be required, save as stated above, to defer payment of that Interest Amount; provided that in the case of (ii), the Issuer will only be required to defer the Solvency Shortfall.

In case of a Required Interest Deferral Event, the Issuer will give notice to the Noteholders (which notice will be irrevocable) in accordance with Condition 12 not less than three Business Days prior to such Interest Payment Date of the amount of the relevant interest payment that shall be deferred. For the avoidance of doubt, the failure to give such notice shall not oblige the Issuer or the Guarantor to make such payment of interest or cause the same to become due and payable on such Interest Payment Date.

(d) *Deferred Interest payments*

Any amounts of deferred interest following a Required Interest Deferral Event, together with any Optionally Deferred Interest, are referred to herein as "Deferred Interest."

To the extent that an interest payment is deferred pursuant to Conditions 3.4(b) or 3.4(c), and except as otherwise provided for in this Condition 3.4(d), the Issuer will not have any obligation to make such interest payment on the relevant Interest Payment Date and the failure to pay such interest shall not constitute a default by the Issuer or any other breach of its obligations under the Notes or for any other purpose.

Deferred Interest will not itself bear interest.

The Issuer is entitled to pay Deferred Interest (in whole or in part) at any time on giving not less than ten Business Days' notice to the Noteholders in accordance with Condition 12, which notice shall specify the amount of Deferred Interest to be paid and the date fixed for such payment (the "Optional Deferred Interest Payment Date") (whereupon such Deferred Interest shall become due and payable on such date fixed for payment), provided that (A) no Solvency Event has occurred and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured); and (B) FINMA has given its Consent. Upon such notice being given, the amount of Deferred Interest specified therein will become due and payable, and the Issuer will be obligated to pay such amount of Deferred Interest on the specified Optional Deferred Interest Payment Date, provided that no Solvency Event has occurred, or would occur due to the payment of the Deferred Interest on or prior to the Optional Deferred Interest Payment Date, and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) on the Optional Deferred Interest Payment Date.

Deferred Interest shall become due and payable (in whole but not in part) on the first to occur of the following dates:

(i) the next Compulsory Interest Payment Date;

(ii) the Early Redemption Date, in the case of redemption of the Notes prior to the Final Maturity Date pursuant to Condition 4.2;

(iii) the Optional Redemption Date, in the case of redemption of the Notes prior to the Final Maturity Date pursuant to Condition 4.3;

(iv) the Final Maturity Date; or

(v) the calendar day on which an order is made for the winding-up, dissolution or liquidation of the Issuer or the Guarantor (other than for the purposes of or pursuant to an amalgamation, reorganization or restructuring while solvent, where the continuing entity assumes substantially all of the assets and obligations of the Issuer or the Guarantor, as applicable).

4. REDEMPTION

4.1 Redemption at Maturity

Unless previously purchased and cancelled or redeemed in accordance with the Conditions, the Issuer will redeem all outstanding Notes, in whole but not in part, in cash, at their principal amount together with any accrued but unpaid interest up to (but excluding) the Final Maturity Date and any outstanding Deferred Interest on the Final Maturity Date.

The Notes are not redeemable at the option of the Noteholders. The outstanding Notes are redeemable at the option of the Issuer prior to the Final Maturity Date only in accordance with the provisions set out in this Condition 4.

4.2 Early Redemption Events

Subject to Condition 4.5, the Issuer may, at its discretion, and subject to certain conditions (as described in this Condition 4.2), redeem the outstanding Notes, in whole but not in part, in cash at the Early Redemption Amount, at any time upon the occurrence of a Special Tax Event, an Accounting Event, a Ratings Methodology Event, a Regulatory Event or a Recalculation Event, as provided for in this Condition 4.2.

(a) *Special Tax Event*

If, at any time after the Issue Date, a Special Tax Event occurs and is continuing, the Issuer may (subject to Condition 4.5) redeem the outstanding Notes (in whole but not in part subject to Condition 4.2(a)(ii)), at any time upon delivering to the Noteholders (via the Agent) an irrevocable notice (such notice, and any other redemption notice contemplated by this Condition 4.2, an "Early Redemption Notice"), not less than 30 nor more than 60 days' prior to the date specified for redemption in the Early Redemption Notice (the "Early Redemption Date") in accordance with Condition 12, provided that:

(i) no Early Redemption Notice may be delivered earlier than 90 days prior to the date on which the Special Tax Event becomes effective; and

(ii) by no later than five Business Days prior to the delivery of any such Early Redemption Notice, the Issuer will deliver or procure that there is delivered to the Agent a certificate signed by two duly authorised officers of the Issuer stating that the Issuer is entitled to effect that redemption and setting out a statement of facts showing that the conditions precedent to the Issuer's right so to redeem have been satisfied.

(b) *Accounting Event, Ratings Methodology Event and Regulatory Event*

Subject to Condition 4.2(d), if, at any time after the Issue Date, an Accounting Event, a Ratings Methodology Event or a Regulatory Event occurs, the Issuer may (subject to Condition 4.5) redeem the outstanding Notes (in whole but not in part subject to Condition 4.2(b)(ii)), at any time upon delivering to the Noteholders (via the Agent) an Early Redemption Notice, not less than 30 nor more than 60 days' prior to the Early Redemption Date, in accordance with Condition 12, provided that:

(i) no Early Redemption Notice may be delivered earlier than 90 days prior to:

(A) in respect of a Regulatory Event, the date from which the Notes do not or will no longer fulfil the requirements referred to in the definition of "Regulatory Event";

(B) in respect of an Accounting Event, the date from which the Notes must not be

recorded as a liability on the Guarantor's consolidated balance sheet as described in the definition of "Accounting Event"; and

(C) in respect of a Ratings Methodology Event, the date from which the lower equity credit referred to in the definition of "Ratings Methodology Event" is given to the Notes; and

(ii) by no later than five Business Days prior to the delivery of any such Early Redemption Notice, the Issuer will deliver or procure that there is delivered to the Agent a certificate signed by two duly authorised officers of the Issuer stating that the Issuer is entitled to effect that redemption and setting out a statement of facts showing that the conditions precedent to the Issuer's right to so redeem have been satisfied.

(c) *Recalculation Event*

If, at any time after the Issue Date, a Recalculation Event occurs and is continuing, the Issuer may (subject to Condition 4.5)) redeem the outstanding Notes (in whole but not in part, subject to Condition 4.2(c)(ii)), at any time upon delivering to the Noteholders (via the Agent) an Early Redemption Notice, not less than 30 nor more than 60 days' prior to the Early Redemption Date, in accordance with Condition 12, provided that:

(i) no such Early Redemption Notice may be delivered earlier than 90 days prior to the earliest date on which the Issuer or the Guarantor would be for the first time obligated to pay the Additional Amounts or, as applicable, the date on which the Recalculation Event becomes effective; and

(ii) by no later than five Business Days prior to the delivery of any such Early Redemption Notice, the Issuer will deliver or procure that there is delivered to the Agent a certificate signed by two duly authorised officers of the Issuer stating that the Issuer is entitled to effect that redemption and setting out a statement of facts showing that the conditions precedent to the Issuer's right so to redeem have been satisfied.

(d) Condition 4.2(b) will not apply to the extent such application would cause the Notes to become Non-Compliant Securities.

4.3 **Redemption at the option of the Issuer**

Subject to Condition 4.5, the Issuer may redeem the outstanding Notes (in whole but not in part) in cash at the Optional Redemption Amount on April 30, 2030 (the "First Optional Redemption Date") or on any Reset Date thereafter, (each, an "Optional Redemption Date"), upon delivering to the Noteholders (via the Agent) an irrevocable notice (an "Optional Redemption Notice"), not less than 30 nor more than 60 days' prior to the Optional Redemption Date specified in the Optional Redemption Notice in accordance with Condition 12.

4.4 **Purchase of Notes**

The Issuer, the Guarantor or their respective affiliates may at any time (subject to Condition 4.5) purchase any Notes in the open market or otherwise and at any price. Such acquired Notes may be cancelled (by surrendering the Notes to the Agent), held or resold. All Notes so cancelled cannot be reissued or resold.

4.5 **Limitation on ability to redeem and purchase Notes**

Any redemption of outstanding Notes in accordance with Conditions 4.2 or 4.3, or purchase of outstanding Notes in accordance with Condition 4.4, is subject to (i) no Solvency Event having occurred that is continuing at the time of delivery of the relevant Early Redemption Notice or Optional Redemption Notice in the case of a redemption pursuant to Conditions 4.2 or 4.3, respectively, or the time of purchase, in the case of a purchase pursuant to Condition 4.4 (as evidenced by the absence of

any public statement by the Issuer or the Guarantor that the Solvency Event has been cured); (ii) FINMA having given its Consent to the redemption or purchase; and (iii) in the case of a redemption or purchase that is within five years of the Issue Date, and if so required at the relevant time by any rules and regulations then applicable to the Guarantor, such redemption or purchase being (a) funded out of the proceeds of a new issuance of capital of at least the same quality as the Notes and (b) otherwise permitted under relevant rules and regulations.

4.6 **Notices to the Agent**

Where the provisions of this Condition 4 provide for the giving of notice by the Issuer to the Agent, such notice shall be deemed to be validly given to the Agent if provided in writing and delivered with all required information to the Agent within the prescribed time limits of this Condition 4.

5. **PAYMENTS**

(a) The Issuer undertakes to pay, as and when due, principal and interest on the Notes in Euro. Payments of any amounts owing in respect of any Note (including principal, interest, Deferred Interest (if any) and Additional Amounts (if any) will be made in Euros in accordance with the terms of the Agency Agreement.

(b) Any reference in these Conditions to principal or interest will be deemed to include any Additional Amounts in respect of principal or interest (as the case may be) which may be payable under Condition 6.

(c) If the due date for payment of any amount in respect of the Notes is not a Business Day, then the Noteholder shall not be entitled to payment until the next succeeding Business Day and shall not be entitled to further interest or other payment in respect of such delay.

6. TAXATION

6.1 Tax Gross-Up

(a) All payments of principal and interest in respect of the Notes or the Subordinated Guarantee will be made free and clear of, and without Tax Deduction for, any taxes, duties, assessments or governmental charges of whatever nature ("Taxes") imposed, levied, collected, withheld or assessed by or on behalf of the Residency Country or any political subdivision thereof or any authority thereof having the power to tax, unless the Issuer or the Guarantor, as applicable, is compelled by law to make such Tax Deduction. In the event of such Tax Deduction, the Issuer or the Guarantor, as applicable, will pay such additional amounts (the "Additional Amounts") as will result (after such Tax Deduction) in receipt by the Noteholders of such sums as the Noteholders would have received if no Tax Deduction had been required.

(b) Notwithstanding Condition 6.1(a), no Additional Amounts or interest recalculated pursuant to Condition 3.3 shall be payable on account of any Taxes which:

(i) are payable if payment under a Note is claimed by or on behalf of a Noteholder that is liable to such Taxes in respect of such Note by reason of it having some connection with the Residency Country other than the mere holding of that Note;

(ii) are payable more than 30 days after the Relevant Date except to the extent that the Noteholder thereof would have been entitled to an Additional Amount on presenting the same for payment on such thirtieth day;

(iii) are payable or required to be withheld or deducted where such withholding or deduction is required to be made pursuant to laws enacted by Switzerland providing for the taxation of payments according to principles similar to those laid down in the draft legislation issued by the Swiss Federal Council on December 17, 2014, or otherwise changing the Swiss federal withholding tax system from an issuer-based system to a paying agent-based system pursuant

to which a person in Switzerland other than the Issuer or the Guarantor is required to withhold tax on any interest payments;

(iv) are payable or required to be withheld or deducted pursuant to the Luxembourg law of December 23, 2005, as amended, which introduced a 20% withholding tax on interest payments made by Luxembourg paying agents to individual beneficial owners that are resident in Luxembourg; or

(v) are payable or required to be withheld or deducted by reason of any FATCA Provisions.

6.2 Stamp Taxes

(a) The Issuer shall pay and, within five Business Days of demand, indemnify (or shall procure the payment to and/or indemnification of) each Noteholder against any cost, loss or liability that such Noteholder incurs in relation to all stamp duty, registration and other similar Taxes payable in respect of the Notes, except for any stamp duty, registration or similar tax payable in respect of an assignment or transfer by a Noteholder of any of its rights and/or obligations under the Notes.

(b) Condition 6.2(a) shall not apply when the Notes are (i) voluntarily registered by a Noteholder with the *Administration de L'Enregistrement, des Domaines et de la TVA* in Luxembourg or (ii) appended by a Noteholder to a document that requires mandatory registration in Luxembourg, where such registration is or was not required to maintain or preserve the rights of the Noteholders under the Notes.

7. PRESCRIPTION

Claims against the Issuer for payment in respect of the Notes will become void unless made within a period of 10 years (in the case of principal) and five years (in the case of interest) from the date on which the relevant payment first became due.

8. AGENT AND REGISTRAR

(a) The initial Agent for the Notes will be Deutsche Bank AG, London Branch. The initial Registrar for the Notes will be Deutsche Bank Luxembourg S.A.

(b) The Issuer and the Guarantor each reserve the right at any time to vary or terminate the appointment of the Agent and/or the Registrar, and/or to appoint other Agents provided that they will at all times maintain: (i) a Registrar, (ii) an Agent located in a jurisdiction other than Luxembourg; (iii) so long as the Notes are listed on a stock exchange, an Agent with a specified office in such city as may be required by the rules of the relevant stock exchange; and (iv) to the extent permitted by law, at any time after laws shall have been enacted by Switzerland providing for the taxation of payments according to principles similar to those laid down in the draft legislation proposed by the Swiss Federal Council on 17 December 2014 (or otherwise changing the Swiss federal withholding tax system from an issuer-based system to a paying agent-based system pursuant to which a person in Switzerland other than the Issuer or the Guarantor, as applicable, is required to withhold tax on any interest payments) and if, as a consequence of such change, Swiss federal withholding tax applies on payments in respect of the Notes, an additional paying agent in a jurisdiction within Europe other than Switzerland that will not be required to withhold or deduct tax pursuant to such Swiss laws.

(c) The Agent and the Registrar each reserve the right at any time to change their specified office to some other specified office in the same city. Notice of all changes in the identities or specified offices of the Agent and/or the Registrar, as the case may be, will be delivered promptly by the Issuer or the Guarantor to the Noteholders in accordance with Condition 12.

(d) If, at any time during the life of the Notes, the Agent or the Registrar shall resign or become incapable of acting as Agent or Registrar, or shall be adjudged bankrupt or insolvent, the Agent or the Registrar, as the case may be, may be substituted by a duly licensed major European bank chosen by the Issuer and the Guarantor. In the event of such a replacement of the Agent and/or the Registrar, all references to the Agent and/or the Registrar, as the case may be, shall be deemed to refer to such replacement. Notice of such a replacement shall be delivered to the Noteholders in accordance with Condition 12.

(e) The Agent and the Registrar each act solely as the Issuer's and the Guarantor's agent and do not assume any obligations towards or relationship of agency or trust for the Noteholders.

9. **SUBSTITUTION**

(a) The Issuer (or any previous substitute of the Issuer under this Condition 9) may, without the consent of the Noteholders, and provided that no Accounting Event, Recalculation Event, Special Tax Event, Ratings Methodology Event or Regulatory Event would be triggered by such substitution, be substituted in respect of all rights and obligations arising under or in connection with the Notes by a Parent or any company all of whose shares carrying voting rights are directly or indirectly held by a Parent (the "New Issuer"), provided that:

(i) the Subordinated Guarantee continues to apply *mutatis mutandis* in respect of the obligations of the New Issuer under the Notes or, if the Subordinated Guarantee cannot continue to apply *mutatis mutandis* in respect of the obligations of the New Issuer under the Notes and a replacement subordinated guarantee is required, the Guarantor has issued its irrevocable subordinated guarantee as per article 111 of the Swiss Federal Code of Obligations in respect of the obligations of the New Issuer under the Notes which subordinated guarantee shall, on a winding up of the Guarantor, have a *pari passu* ranking with the obligations of the Guarantor under the Subordinated Guarantee prior to the substitution of the Issuer on terms and with effect being not materially less favorable; and

(ii) if the New Issuer is a company resident for tax purposes in a New Residence (as defined in paragraph (c) below), the conditions set forth in clause (c) below are also met.

(b) In addition, any substitution is subject to:

(i) if required, the Issuer and/or the Guarantor giving prior written notice to, and receiving no objection from, FINMA; and

(ii) certification being provided by two duly authorised officers of the Issuer stating that the conditions precedent in this Condition 9 have been complied with.

(c) If the New Issuer is a company resident for tax purposes in a jurisdiction other than Luxembourg (such jurisdiction, the "New Residence"), the following conditions shall also be met:

(i) the Notes then outstanding would constitute legal, valid and binding obligations in the New Residence of such New Issuer;

(ii) under the applicable laws and regulations in effect at the date of the substitution, the New Issuer would not be obligated to make any withholding or deduction on any payments in respect of the Notes beyond any withholding or deduction already applicable to payments made by the Issuer in respect of the Notes prior to the substitution (in case such withholding or deduction is introduced after a substitution, clause (d) of this Condition 9 will apply); and

(iii) the Subordinated Guarantee or, if applicable, the replacement subordinated guarantee to be provided by the Guarantor according to Condition 9(a)(i) explicitly also guarantees, on a subordinated basis, the payment to the Noteholders of any Additional Amounts payable by the New Issuer at any time after substitution.

(d) If the New Issuer is resident for tax purposes in a New Residence, the provisions of Condition 6 shall apply, with the substitution of references to Luxembourg in the definition of "Residency Country" with references to the New Residence.

(e) In the event of a substitution pursuant to this Condition 9, any reference in these Conditions (other than Conditions 3 and 4, in each case with respect to a Solvency Event) to the Issuer shall be a reference to the New Issuer and if the New Issuer is resident for tax purposes in a New Residence, any reference to Luxembourg shall be a reference to the New Residence.

(f) Notice of any substitution shall be irrevocably given by the Issuer causing the Agent to deliver a notice to Noteholders in accordance with Condition 12. Upon such delivery of notice to Noteholders, the substitution shall become effective, and the Issuer (and in the event of a repeated application of this Condition 9 any previous New Issuer) shall be discharged from any and all obligations under the Notes.

10. ENFORCEMENT

(a) If default is made in the payment of any principal or interest due and payable in respect of the Notes and such default continues for a period of (i) in the case of principal, 10 days after the due date for the same; and (ii) in the case of interest, 30 days after the due date for the same, each Noteholder may, in respect of its Notes and subject as provided below, at its discretion and without further notice, institute proceedings for the winding up of the Issuer or the Guarantor, as applicable, in the Residency Country (but not elsewhere) but may take no further action in respect of such default.

(b) If, otherwise than for the purposes of a reconstruction, amalgamation, merger or other similar transaction on terms previously approved in writing by an Extraordinary Resolution of the Noteholders, an order is made or an effective resolution is passed for the winding up of the Issuer or the Guarantor in the Residency Country (but not elsewhere), each Noteholder may, subject as provided below, at its discretion, give notice to the Issuer and the Guarantor that its Note is, and it shall accordingly thereby forthwith become, immediately due and repayable at its principal amount, plus accrued but unpaid interest and any outstanding Deferred Interest but may take no further action in respect of such payment.

(c) No remedy against the Issuer or the Guarantor, other than as referred to in this Condition 10, shall be available to Noteholders to enforce any payment obligations in respect of the Notes.

(d) Without prejudice to paragraphs (a) and (b) above, each Noteholder may institute such proceedings against the Issuer or the Guarantor as it may think fit to enforce any obligation, condition or provision binding on the Issuer under the Notes (other than any payment obligations in respect of the Notes) or the Guarantor under the Subordinated Guarantee (other than any payment obligations in respect of the Subordinated Guarantee), provided that the Issuer or the Guarantor, as applicable, shall not as a consequence of such proceedings be obligated to pay any sum or sums sooner than the same would otherwise have been payable by it pursuant to these Conditions or any damages.

11. MODIFICATIONS

11.1 Meetings of Noteholders

The Agency Agreement contains provisions for convening meetings of Noteholders to consider matters affecting their interests, including the sanctioning by Extraordinary Resolution of a modification of any of these Conditions, the Subordinated Guarantee or any provisions of the Agency Agreement. Such a meeting may be convened by Noteholders holding not less than 10% of the aggregate principal amount of Notes for the time being outstanding. The quorum for any meeting convened to consider an Extraordinary Resolution will be two or more persons holding or representing a clear majority of the aggregate principal amount of Notes for the time being outstanding, or at any adjourned meeting, two or more persons being or representing Noteholders whatever the aggregate principal amount of Notes held or represented, unless the business of such meeting includes consideration of proposals, inter alia, to (i) modify the maturity of the Notes, the optional redemption dates or the dates on which interest is scheduled to be paid in respect of the Notes; (ii) modify the circumstances in which the Issuer is entitled to redeem the Notes pursuant to Condition 4.2; (iii) reduce or cancel the principal amount of, any premium payable on redemption of, or interest on or to vary the method of calculating the rate of interest on the Notes; (iv) change the currency of payment of the Notes unless provided by applicable law; (v) vary, amend or grant a waiver in relation to Condition 3; (vi) to change the governing law of the Notes, the Subordinated Guarantee or the Agency Agreement; or (vii) modify the provisions concerning the quorum required at any meeting of Noteholders or the majority required to pass an Extraordinary Resolution, in which case the necessary quorum (a "Special Quorum") will be two or more persons holding or representing not less than 75%, or at any adjourned meeting not less than 25%, of the aggregate principal amount of Notes for the time being outstanding. The Agency Agreement provides that (i) a resolution passed at a meeting duly convened and held in accordance

with the Agency Agreement by a majority consisting of not less than 75% of the votes cast on such resolution, (ii) a resolution in writing signed by or on behalf of the holders of not less than 75% in principal amount of the Notes for the time being outstanding (a "Written Resolution") or (iii) consent given by way of electronic consents through the relevant clearing system(s) (in a form satisfactory to the Agent) by or on behalf of the holders of not less than 75% in aggregate principal amount of the Notes for the time being outstanding, shall, in each case, be effective as an Extraordinary Resolution of the Noteholders. An Extraordinary Resolution passed by the Noteholders will be binding on all Noteholders, whether or not they were present at any meeting and whether or not they voted on the resolution.

11.2 Modification and Waiver

The parties to the Agency Agreement may agree, without the consent of the Noteholders, to (i) any modification of any of the provisions of the Notes, the Subordinated Guarantee or the Agency Agreement which is of a formal, minor or technical nature and, in the opinion of the Issuer, is not materially prejudicial to the interests of the Noteholders, or which is made to correct a manifest error, and (ii) any other modification and any waiver or authorization of any breach or proposed breach, of any of the provisions of the Agency Agreement which is in the opinion of the Issuer not materially prejudicial to the interests of the Noteholders. Any such modification, authorization or waiver shall be binding on the Noteholders and such modification shall be notified to the Noteholders (via the Agent) as soon as practicable in accordance with Condition 12.

12. NOTICES

(a) All notices regarding the Notes will be valid if delivered to Euroclear and/or Clearstream and/or any other clearing system through which the Notes are for the time being cleared. Any such notice shall be deemed to have been given on the date of such delivery or, if delivered on more than once or on different dates, on the first date of publication or delivery.

(b) If the Notes are in definitive form, as an alternative to publication as provided in Condition 12(a), notice will be validly given by the Issuer delivering such notice to the Registrar for communication by the Registrar to the relevant Noteholders specified in the Register. Such notice will be deemed to have been validly given to the Noteholders on the day on which the said notice was validly given to the Agent or Registrar.

(c) If the Notes are listed, notices to the Noteholders will also be valid if published by such method as permitted by the relevant stock exchange where the Notes are then listed. If and for so long as the Notes are listed on the Official List of the Luxembourg Stock Exchange and admitted for trading on the Euro MTF Market thereof, notices to Noteholders will be valid if published on the Luxembourg Stock Exchange's website www.bourse.lu. Such notice will be deemed to have been validly given on the date of the publication.

13. FURTHER ISSUES

The Issuer may from time to time, without the consent of the Noteholders, issue additional securities with identical terms and conditions as the Notes in all respects (or in all respects except for the Issue Date, the first payment of interest, if any, and the issue price) so as to be consolidated and form a single series with the Notes.

14. GOVERNING LAW, JURISDICTION AND PROCESS AGENT

14.1 Governing Law

The Agency Agreement and the Notes (except for the subordination provisions (Condition 2.1) which are governed by the laws of Luxembourg) and any non-contractual obligations arising out of or in connection with the Agency Agreement and the Notes are governed by, and shall be construed in accordance with, English law.

The Subordinated Guarantee is governed by, and shall be construed in accordance with, the substantive

laws of Switzerland.

The provisions of articles 470-1 to 470-19 of the Luxembourg law of August 10, 1915 on commercial companies, as amended, shall not apply in respect of the Notes.

14.2 **Jurisdiction**

The courts of England are to have jurisdiction to settle any disputes that may arise out of or in connection with the Notes and accordingly any legal action or proceedings arising out of or in connection with the Notes ("Proceedings") may be brought in such courts. The Issuer irrevocably submits to the jurisdiction of the courts of England and waives any objection to Proceedings in such courts on the ground of venue or on the ground that the Proceedings have been brought in an inconvenient forum.

Nothing contained in this Condition 14.2 shall preclude the Noteholders from bringing any Proceedings against the Issuer in any other court of competent jurisdiction in Switzerland or Luxembourg (but not elsewhere), nor shall the taking of Proceedings in England preclude the taking of Proceedings in Switzerland or Luxembourg (or vice versa), whether concurrently or not.

Any legal action or proceeding in respect of the Subordinated Guarantee shall be brought exclusively in the courts of the City of Zurich (venue being Zurich 1), and, where the law permits, the Commercial Court of the Canton of Zurich with the right of appeal, where the law permits, to the Swiss Federal Supreme Court, the decision of which shall be final.

14.3 **Appointment of Process Agent**

The Issuer and the Guarantor hereby irrevocably and unconditionally appoint Swiss Re Services Ltd. at 30 St. Mary Axe, London, England, as their agent for service of process in England in respect of any Proceedings and undertake that in the event of such agent ceasing so to act they will each appoint another person as their agent for that purpose.

15. **RIGHTS OF THIRD PARTIES**

No rights are conferred on any person under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of the Notes, but this does not affect any right or remedy of any person which exists or is available apart from that Act.

16. **DEFINITIONS**

"1-year Mid-Swap Rate" means:

(i) the mid-swap rate for a term of one year as displayed on Bloomberg screen "ICESWAP2" (or its successor or replacement) as at approximately 11:00 a.m. (Central European time) on the relevant Reset Rate of Interest Determination Date (the "Screen Page") (the "Screen Page 1-year Mid-Swap Rate");

(ii) in the event that such rate does not appear on the Screen Page on the relevant Reset Rate of Interest Determination Date, except as provided in paragraph (iii) below, the 1-year Reference Bank Rate on such Reset Rate of Interest Determination Date;

(iii) notwithstanding paragraph (ii) above, if the Issuer or the Agent Bank determines at any time prior to, on or following any Reset Rate of Interest Determination Date, that the Screen Page 1-year Mid-Swap Rate has been discontinued, the Issuer will as soon as reasonably practicable (and in any event prior to the next relevant Reset Rate of Interest Determination Date) appoint an agent that is a leading bank or broker-dealer active in the Eurozone or London interbank market (the "Reset Rate of Interest Determination Agent"), which will determine in its sole discretion, acting in good faith and in a commercially reasonable manner, whether a substitute or successor rate for purposes of determining the 1-year Mid-Swap Rate on each Reset Rate of

Interest Determination Date falling on such date or thereafter that is substantially comparable to the Screen Page 1-year Mid-Swap Rate is available, provided that if the Reset Rate of Interest Determination Agent determines that there is an industry accepted successor rate, the Reset Rate of Interest Determination Agent will use such successor rate to determine the 1-year Mid-Swap Rate.

If the Reset Rate of Interest Determination Agent has determined a substitute or successor rate in accordance with the foregoing (such rate, the "Replacement Rate"), then for purposes of determining the 1-year Mid-Swap Rate on each Reset Rate of Interest Determination Date falling on or after such determination:

(A) the Reset Rate of Interest Determination Agent will also determine changes (if any) to the business day convention, the definition of "Business Day", the Reset Rate of Interest Determination Date, the day count fraction and any method for obtaining the Replacement Rate, including any adjustment factor needed to make such Replacement Rate comparable to the Screen Page 1-year Mid-Swap Rate, in each case in a manner that is consistent with industry-accepted practices for such Replacement Rate;

(B) references to the 1-year Mid-Swap Rate in these Conditions will be deemed to be references to the Replacement Rate, including any alternative method for determining such rate as described in (i) above;

(C) the Reset Rate of Interest Determination Agent will notify the Issuer of the foregoing as soon as reasonably practicable and (iv) the Issuer will give notice as soon as reasonably practicable to the Noteholders (in accordance with Condition 12) and the Agent Bank specifying the Replacement Rate, as well as the details described in (A) above.

The determination of the Replacement Rate and the other matters referred to above by the Reset Rate of Interest Determination Agent will (In the absence of manifest error) be final and binding on the Issuer, the Guarantor, the Agent Bank and the Noteholders.

If the Reset Rate of Interest Determination Agent determines that the Screen Page 1-year Mid-Swap Rate has been discontinued but for any reason a Replacement Rate has not been determined, the 1-year Mid-Swap Rate will be equal to the last 1-year Mid-Swap Rate available on the Screen Page as determined by the Agent Bank.

"1-year Mid-Swap Rate Quotations" means the arithmetic mean of the bid and offered rates for the annual fixed rate leg (calculated on a 30/360 day count basis) of a fixed-for-floating Euro interest rate swap which (i) has a term of one year commencing on the first day of the relevant Reset Period, (ii) is in an amount that is representative of a single transaction in the relevant market at the relevant time with an acknowledged dealer of good credit in the swap market and (iii) has a floating rate leg based on six-month EURIBOR (calculated on an actual/360 day count basis).

"1-year Reference Bank Rate" means the percentage rate determined on the basis of the 1-year Mid-Swap Rate Quotations provided by at least five leading swap dealers in the interbank market that have been selected by the Reference Banks Agent (the "Reference Banks") to the Agent Bank at approximately 11:00 a.m. (Central European time) on the relevant Reset Rate of Interest Determination Date. If one quotation is provided, the 1-year Reference Bank Rate will be such quotation. If two or more quotations are provided, the 1-year Reference Bank Rate will be the arithmetic mean of the quotations, eliminating, if at least three quotations are provided, the highest quotation (or, in the event of equality, one of the highest) and the lowest quotation (or, in the event of equality, one of the lowest). If the 1-year Reference Bank Rate cannot be determined in accordance with the foregoing provisions of this paragraph, the applicable 1-year Reference Bank Rate shall be equal to the last 1-year Mid-Swap Rate available on the Screen Page as determined by the Agent Bank, except that if the Agent Bank or the Issuer determines that the absence of quotation is due to the discontinuation of the Screen Page 1-year Mid-Swap Rate, then the 1-year Mid-Swap Rate will be determined in accordance with paragraph (iii) of the definition of 1-year Mid-Swap Rate.

"Accounting Event" means that an opinion of a recognised accounting firm has been delivered to the Issuer or the Guarantor on or after the Issue Date, stating that any outstanding Notes must not or must no longer be recorded as a liability on the Guarantor's consolidated balance sheet prepared in accordance with the accounting standards applied to such published consolidated financial statements at the relevant dates and for the relevant periods and this cannot be avoided by the Issuer or the Guarantor taking such reasonable measures as the Issuer or the Guarantor (acting in good faith) deems appropriate.

"Additional Amounts" has the meaning given to it in Condition 6.1(a).

"Additional Global Notes" has the meaning given to it in Condition 1(b).

"Additional Notes" has the meaning given to it in Condition 1(b).

"Agency Agreement" has the meaning given to it in the recitals to these Conditions.

"Agent" means Deutsche Bank AG, London Branch, located at Winchester House, 1 Great Winchester Street, London EC2N 2DB, United Kingdom, initially, and any replacement agent appointed by the Issuer and the Guarantor thereafter.

"Agent Bank" has the meaning given to it in Condition 3.1(c).

"Assets" means (i) in respect of the Issuer, the Issuer's unconsolidated total assets, as shown in its latest audited balance sheet, but adjusted for all subsequent events, as reasonably determined by the Issuer or, if a liquidation procedure has been instigated, by the liquidator and (ii) in respect of the Guarantor, the Guarantor's unconsolidated total assets, as shown in its latest audited balance sheet, but adjusted for all subsequent events, as reasonably determined by the Guarantor or, if a liquidation procedure has been instigated, by the liquidator.

"Business Day" means a day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are open for business (including dealings in foreign exchange and foreign currency deposits) in Luxembourg, Zurich, Switzerland and London, England and (ii) which is a TARGET 2 Settlement Day.

"Calculation Amount" means €1,000 in principal amount of Notes.

"Clearstream" means Clearstream Banking S.A.

"Compulsory Interest Payment Date" means any Interest Payment Date on which (i) the Issuer does not elect to, or is not permitted to, defer payment of interest pursuant to Condition 3.4(b) and (ii) no Required Interest Deferral Event has occurred and is continuing.

"Conditions" means these terms and conditions of the Notes, as amended from time to time.

"Consent" means such consent, approval or non-objection (if any) by FINMA as is required under relevant rules and regulations.

"Day Count Fraction" means the actual number of days in the relevant period from (and including) the most recent Interest Payment Date (or, if none, the Issue Date) to (but excluding) the relevant payment date, divided by the actual number of days in the Interest Period in which the relevant period falls (including the first such day but excluding the last) or, in the case of any period falling within the short first Interest Period, the actual number of days in the period from (and including) April 30, 2018 to (but excluding) the first Interest Payment Date.

"Deferred Interest" has the meaning given to it in Condition 3.4(d).

"Early Redemption Amount" means the principal amount of the outstanding Notes, plus accrued and unpaid interest, if any, to (but excluding), and any outstanding Deferred Interest as at (but excluding)

the Early Redemption Date.

"Early Redemption Date" has the meaning given to it in Condition 4.2(a).

"Early Redemption Notice" has the meaning given to it in Condition 4.2(a).

"Euro" and "€" means the single currency introduced at the start of the third stage of European economic and monetary union pursuant to the Treaty on the Functioning of the European Union, as amended from time to time.

"Euroclear" means Euroclear Bank S.A./N.V.

"Extraordinary Resolution" means (i) a resolution passed at a meeting duly convened and held in accordance with the Agency Agreement by a majority consisting of not less than 75% of the votes cast on such resolution, or (ii) a resolution in writing signed by or on behalf of the holders of not less than 75% in aggregate principal amount of the Notes for the time being outstanding; or (iii) consent given by way of electronic consents through the relevant clearing system(s) (in a form satisfactory to the Agent) by or on behalf of the holders of not less than 75% in aggregate principal amount of the Notes for the time being outstanding.

"FATCA Provisions" mean Sections 1471 through 1474 of the U.S. Internal Revenue Code of 1986, as amended (the "Code", and such sections "FATCA"), any successor provisions to FATCA, any current or future regulations or official interpretations of FATCA, any agreement entered into pursuant to Section 1471(b) of the Code, any intergovernmental agreement between the United States and another jurisdiction (including any agreement with Luxembourg and Switzerland) to improve tax compliance and to implement FATCA (an "IGA") or any legislation, rules or practices implementing an IGA.

"Final Maturity Date" means:

(a) if, on or prior to the Scheduled Maturity Date, none of the circumstances described in paragraph (b) below has occurred, the Scheduled Maturity Date; or

(b) if, on or prior to the Scheduled Maturity Date, a Solvency Event has occurred and is continuing (as evidenced by the absence of any public statement by the Issuer or the Guarantor that the Solvency Event has been cured) or would occur as a result of the redemption of the Notes, then the Interest Payment Date immediately following the day on which the Solvency Event has ceased to continue (as evidenced by a public statement by the Issuer or the Guarantor that the Solvency Event has been cured) or would not occur as a result of the redemption of the Notes.

"FINMA" means the Swiss Financial Market Supervisory Authority FINMA or any successor authority.

"First Optional Redemption Date" has the meaning given to it in Condition 4.3.

"Global Note" or "Global Notes" has the meaning given to each such term in Condition 1(b).

"Guarantor" means Swiss Reinsurance Company Ltd, with a registered office at Mythenquai 50/60, 8002 Zurich, Switzerland.

"Guarantor Group" means the Guarantor and its consolidated subsidiaries.

"Guarantor Junior Securities" means:

(a) any perpetual subordinated securities of the Guarantor;

(b) any other securities or obligations of the Guarantor ranking or expressed to rank junior to the Subordinated Guarantee; and

(c) all classes of share capital of the Guarantor.

"Guarantor Parity Securities" means any dated subordinated securities of the Guarantor and other securities or obligations of the Guarantor, ranking or expressed to rank *pari passu* with the Subordinated Guarantee, including a guarantee or support (or any similar) agreement issued or entered into by the Guarantor which ranks or is expressed to rank *pari passu* with the Subordinated Guarantee.

"Guarantor Senior Creditors" means creditors in respect of Guarantor Senior Securities.

"Guarantor Senior Securities" means:

(a) any securities or other obligations (including any unsubordinated securities) of the Guarantor, except those ranking or expressed to rank junior to or *pari passu* with the Subordinated Guarantee, including a guarantee or support (or any similar) agreement issued or entered into by the Guarantor which ranks or is expressed to rank junior to, or *pari passu* with, the Subordinated Guarantee; and

(b) for the avoidance of doubt but without limitation, obligations of the Guarantor in respect of policies of insurance or reinsurance, trade accounts payable, any liability for income, franchise, real estate or other taxes owed or owing to unsubordinated creditors, except those ranking or expressed to rank junior to, or *pari passu* with, the Subordinated Guarantee.

"Initial Global Note" has the meaning given to it in Condition 1(b).

"Initial Interest Period" means the period from (and including) the Issue Date to (but excluding) the First Optional Redemption Date.

"Initial Rate" has the meaning given to it in Condition 3.1(a).

"Interest Amount" means, with respect to any Interest Payment Date, the amount of interest that would be payable on the aggregate principal amount of Notes outstanding or on each Calculation Amount, as applicable, on such Interest Payment Date.

"Interest Payment Date" has the meaning given to it in Condition 3.1(a).

"Interest Period" means each period beginning on (and including) the Issue Date or any Interest Payment Date and ending on (but excluding) the next succeeding Interest Payment Date.

"Issue Date" has the meaning given to it in Condition 1(a).

"Issuer" has the meaning given to it in the recitals to these Conditions.

"Issuer Junior Securities" means:

(a) any perpetual subordinated securities of the Issuer;

(b) any other securities or obligations of the Issuer ranking or expressed to rank junior to the Notes; and

(c) all classes of share capital of the Issuer.

"Issuer Parity Securities" means any dated subordinated securities of the Issuer and other securities or obligations of the Issuer, ranking or expressed to rank *pari passu* with the Notes, including a guarantee or support (or any similar) agreement issued or entered into by the Issuer which ranks or is expressed to rank *pari passu* with the Notes.

"Issuer Senior Creditors" means creditors in respect of Issuer Senior Securities.

"Issuer Senior Securities" means:

(a) any securities or other obligations (including any unsubordinated securities) of the Issuer, except those ranking or expressed to rank junior to or *pari passu* with the Notes, including a guarantee or support (or any similar) agreement issued or entered into by the Issuer which ranks or is expressed to rank junior to, or *pari passu* with, the Notes; and

(b) for the avoidance of doubt but without limitation, obligations of the Issuer in respect of trade accounts payable, any liability for income, franchise, real estate or other taxes owed or owing to unsubordinated creditors, except those ranking or expressed to rank junior to, or *pari passu* with, the Notes.

"Liabilities" means (i) in respect of the Issuer, the Issuer's unconsolidated total liabilities, as shown in its latest audited balance sheet, but adjusted for all subsequent events, as reasonably determined by the Issuer, or if a liquidation procedure has been instigated, the liquidator and (ii) in respect of the Guarantor, the Guarantor's unconsolidated total liabilities, as shown in its latest audited balance sheet, but adjusted for all subsequent events, as reasonably determined by the Guarantor, or if a liquidation procedure has been instigated, the liquidator.

"Margin" means 2.85% per annum.

"New Issuer" has the meaning given to it in Condition 9(a).

"New Residence" has the meaning given to it in Condition 9(c).

"Non-Compliant Securities" means securities which would not be eligible for regulatory capital treatment as at least Tier 2 Capital or equivalent thereof for group or, if applicable, solo solvency purposes.

"Note" or "Notes" has the meaning given to it in the recitals to these Conditions.

"Noteholder" means the person in whose name a Note is registered in the Register.

"Optionally Deferred Interest" has the meaning given to it in Condition 3.4(b).

"Optional Deferred Interest Payment Date" has the meaning given to it in Condition 3.4(d).

"Optional Redemption Amount" means the principal amount of the outstanding Notes plus accrued and unpaid interest, if any, to (but excluding), and any outstanding Deferred Interest as at (but excluding), the Optional Redemption Date.

"Optional Redemption Date" has the meaning given to it in Condition 4.3.

"Optional Redemption Notice" has the meaning given to it in Condition 4.3.

"outstanding" has the meaning given to it in the Agency Agreement.

"Parent" means an entity, if any, that at the Reference Date (a) holds directly or indirectly at least a majority of the common or ordinary shares of the Guarantor and (b) has common shares or ordinary shares listed on an internationally recognised stock exchange.

"Parent Group" means a Parent and its consolidated subsidiaries.

"Proceedings" has the meaning given to it in Condition 14.2.

"Rate of Interest" means:

(i) in the case of each Interest Period falling within the Initial Interest Period, the Initial Rate; or

(ii) in the case of each Interest Period falling within a Reset Period, the relevant Reset Rate of Interest that is in effect for such Reset Period.

"Ratings Methodology Event" means a change by a nationally recognised statistical rating organization to its equity credit criteria, or the interpretation or application thereof, for securities such as the Notes, which change results in a lower equity credit being given to the Notes as of the date of such change than the equity credit assigned to the Notes at or around the Issue Date.

"Recalculation Event" means that an opinion of a recognised independent tax counsel has been delivered to the Issuer or the Guarantor confirming (i) the occurrence of a Recalculation of Interest or (ii) that the Issuer or the Guarantor, as applicable, is required pursuant to the Conditions to pay Additional Amounts in respect of the Notes and this cannot be avoided by the Issuer or the Guarantor taking such reasonable measures as the Issuer or the Guarantor (acting in good faith) deems appropriate.

"Recalculation of Interest" has the meaning given to it in Condition 3.3.

"Reference Banks" has the meaning given to it in the definition of "1-year Reference Bank Rate.

"Reference Banks Agent" means, at the Issuer and/or the Guarantor's discretion, the Issuer, the Guarantor, an affiliate of the Issuer or the Guarantor, or an independent investment bank, commercial bank or stockbroker appointed by the Issuer.

"Reference Date" means the 10th Business Day preceding the relevant Interest Payment Date, Early Redemption Date (if any) or Optional Redemption Date (if any), as the case may be.

"Register" has the meaning given to it in Condition 1(a).

"Registrar" means Deutsche Bank Luxembourg S.A., located at 2 boulevard Konrad Adenauer, L-1115 Luxembourg, initially, and any successor registrar appointed by the Issuer and the Guarantor from time to time in connection with the Notes.

"Regulatory Event" means, the occurrence on or after the Issue Date, of any of the following events, which occurrence cannot be avoided by the Guarantor taking such reasonable measures as it (acting in good faith) deems appropriate:

(a) FINMA notifies the Guarantor or otherwise states that (a) any outstanding Notes do not, or will not, fulfil the requirements of at least Tier 2 Capital, or equivalent thereof, for group or, if applicable, solo solvency purposes and (b) 100% of the principal amount of any outstanding Notes is not, or will not be, counted as at least Tier 2 capital or equivalent thereof, for group or, if applicable, solo solvency purposes, under any applicable transitional or grandfathering provisions, or

(b) FINMA affords any outstanding Notes recognition as at least Tier 2 Capital, or equivalent thereof, for group or, if applicable, solo solvency purposes, and at a subsequent time FINMA issues further guidance in relation to qualifying instruments for group or, if applicable, solo solvency purposes (by way of law, ordinance, regulation or a published interpretation thereof), and following which, notifies the Guarantor or otherwise states that (i) any outstanding Notes no longer, or will no longer, fulfil the requirements of at least Tier 2 Capital, or equivalent thereof, for group or, if applicable, solo solvency purposes and (ii) 100% of the principal amount of any outstanding Notes is not, or will not be, counted as at least Tier 2 capital or equivalent thereof, for group or, if applicable, solo solvency purposes, under any applicable transitional or grandfathering provisions.

Any reference in this definition to a statutory provision shall include any amendments to such provision from time to time and any successor provision.

"Relevant Date" means the date on which the payment of an Additional Amount first became due,

except for that the full amount of the moneys payable has not been duly received by the Agent on or prior to such due date. In that case, "Relevant Date" means the date on which notice is duly given to the Noteholders in accordance with Condition 12 to the effect that the full amount of such moneys has been received.

"Replacement Rate" has the meaning given to such term in the definition of "1-year Mid-Swap Rate."

"Required Interest Deferral Event" has the meaning given to it in Condition 3.4(c).

"Required Solvency Margin" means for group, or if applicable, solo solvency purposes, the required solvency margin (or a comparable term in case of a change in applicable rules) in accordance with the provisions of mandatorily applicable Swiss laws, regulations, rules and/or generally applied administrative practices of FINMA relating to the regulatory capital of insurers and reinsurers in Switzerland.

"Reset Date" means the First Optional Redemption Date, and each anniversary of the First Optional Redemption Date.

"Reset Period" means each period from (and including) a Reset Date to (but excluding) the next succeeding Reset Date.

"Reset Rate" means, in respect of a Reset Period, the 1-year Mid-Swap Rate determined by the Agent Bank in accordance with these Conditions for such Reset Period.

"Reset Rate of Interest" means the Reset Rate for a Reset Period plus the Margin.

"Reset Rate of Interest Amount" has the meaning given to it in Condition 3.1(d).

"Reset Rate of Interest Determination Agent" has the meaning given to such term in the definition of "1-year Mid-Swap Rate."

"Reset Rate of Interest Determination Date" means, in respect of a Reset Date, the day falling two Business Days before such Reset Date.

"Residency Country" for the Issuer means Luxembourg, for the Guarantor, Switzerland, or in each case, any new country of domicile, and for any successor entity, the jurisdiction of its domicile.

"Scheduled Maturity Date" means April 30, 2050.

"Screen Page" has the meaning given to such term in the definition of "1-year Mid-Swap Rate."

"Screen Page 1-year Mid-Swap Rate" has the meaning given to such term in the definition of "1-year Mid-Swap Rate."

A "Solvency Event" shall have occurred if:

(a) the Guarantor or the Swiss Re Group, does not have appropriate funds to cover the Required Solvency Margin, or the amount of such funds would, as a result of a full or partial interest payment or redemption payment, as applicable, that would otherwise be due on an Interest Payment Date, Early Redemption Date (if any), Optional Redemption Date (if any) or the Final Maturity Date, respectively, be or become less than the Required Solvency Margin; or

(b) the Issuer or the Guarantor has reasonable grounds for concern that it is unable to pay its debts as they fall due; or

(c) the Issuer or the Guarantor has reasonable grounds for concern that its Assets do not exceed its Liabilities; or

(d) FINMA has given (and not withdrawn) notice to the Issuer or the Guarantor that as a result of the financial, capital and/or solvency position of the Issuer and/or the Guarantor, the payment of an interest or redemption amount in whole or in part must be deferred.

"Solvency Shortfall" means the portion of the Interest Amount that, if paid, would cause a Solvency Event to occur or be continuing.

"Special Quorum" has the meaning given to it in Condition 11.1.

"Special Tax Event" means that an opinion of a recognised independent tax counsel has been delivered, on or after the Issue Date, to (i) the Issuer, stating that, due to a change in law, ruling or interpretation, the Issuer is, or there is more than an insubstantial risk that the Issuer will be, no longer able to obtain a tax deduction for the purposes of Luxembourg corporation tax for any payment of interest on the Notes and this cannot be avoided by the Issuer taking such reasonable measures as it (acting in good faith) deems appropriate; or (ii) the Guarantor, stating that, due to a change in law, ruling or interpretation, the Guarantor is, or there is more than an insubstantial risk that the Guarantor will be, no longer able to obtain a tax deduction for purposes of Swiss corporation tax for any payment of interest under the Subordinated Guarantee and this cannot be avoided by the Guarantor taking such reasonable measures as it (acting in good faith) deems appropriate.

"Subordinated Guarantee" has the meaning given to it in the recitals to these Conditions.

"Swiss Re Group" means Swiss Re Ltd together with its consolidated subsidiaries.

"TARGET 2 Settlement Day" means any day on which TARGET System is operating.

"TARGET System" means the Trans-European Automated Real-time Gross settlement Express Transfer system.

"Tax Deduction" has the meaning given to it in Condition 3.3.

"Taxes" has the meaning given to it in Condition 6.1(a).

"Tier 2 Capital" means all items classified as tier two capital ("*Ergänzendes Kapital*") of the Guarantor or the Guarantor Group, as defined in the Swiss laws, regulations and rules (including the regulations of FINMA), at the relevant time, comprising upper additional capital ("*oberes ergänzendes Kapital*") and lower additional capital ("*unteres ergänzendes Kapital*").

"Written Resolution" has the meaning given to it in Condition 11.1.

Overview of Provisions Relating to the Notes While in Global Form

The Notes will be represented by the Global Note. The Global Note contains certain provisions which modify the effect of the Terms and Conditions of the Notes. Terms defined in the Terms and Conditions of the Notes and the Agency Agreement relating to the Notes have the same meaning in the paragraphs below. References herein to Euroclear and/or Clearstream shall be deemed to include references to any other clearing system which has accepted the Notes for clearance. The following is a summary of those provisions.

Initial Issuance of Global Note

On the Issue Date, the Global Note will be deposited with, or on behalf of, Euroclear and Clearstream and registered in the name of a nominee for the common depository for Euroclear and Clearstream.

Upon such registration and delivery, each subscriber will be credited with a principal amount of Notes equal to the principal amount thereof for which it has subscribed and paid.

Relationship of Accountholders with Clearing System

Each of the persons shown in the records of Euroclear or Clearstream or any other clearing system approved by the Issuer and the Agent (an "**Alternative Clearing System**") as the holder of a Note represented by the Global Note (an "**Accountholder**") must look solely to Euroclear or Clearstream (as the case may be) for its share of each payment made by the Issuer to the holder of the Global Note and in relation to all other rights arising under the Global Note, subject to and in accordance with the respective rules and procedures of Euroclear or Clearstream (as the case may be). Such persons shall have no claim directly against the Issuer in respect of payments due on the Notes for so long as the Notes are represented by the Global Note and such obligations of the Issuer will be discharged by payment to the holder of the Global Note in respect of each amount so paid.

Meetings

The registered holder of the Global Note will (unless the Global Note represents only one Note) be treated as being two persons for the purposes of any quorum requirements of a meeting of Noteholders and, at any such meeting, as having one vote in respect of each €100,000 in principal amount of the Notes.

Payment

All payments in respect of Notes represented by the Global Note will be made to, or to the order of, the person whose name is entered on the Register at the close of business on the Clearing System Business Day immediately prior to the date for payment (where "**Clearing System Business Day**" means Monday to Friday (inclusive) except 25 December and 1 January). The calculation of all payments on the Notes will be made in respect of the total aggregate amount of the Notes represented by the Global Note, together with such other sums and additional amounts (if any) as may be payable under the Conditions, all in accordance with the Conditions and the Agency Agreement.

Exchange

The Global Note will be exchangeable (free of charge to the holder) in whole but not in part for a definitive note to be issued to each Noteholder in respect of its registered holding (a "**Definitive Note**") only upon the occurrence of an Exchange Event. An "**Exchange Event**" means that either (a) an event as described in Condition 10(a) or 10(b) of the Conditions has occurred and is continuing; or (b) the Issuer has been notified that Euroclear or Clearstream (as the case may be) have been closed for business for a continuous period of 14 days (other than by reason of holiday, statutory or otherwise) or have announced an intention permanently to cease business or have in fact done so and no successor clearing system is available.

The Issuer will promptly give notice to the Noteholders in accordance with Condition 12 if an Exchange Event occurs. In the event of the occurrence of an Exchange Event, Euroclear and/or Clearstream, as the case may be, acting on the instructions of any Accountholder may give notice to the Registrar requesting exchange. Any exchange shall occur no later than ten days after the date of receipt of the notice by the Registrar.

If following an Exchange Event, the Global Note is not duly exchanged for Definitive Notes by the day provided in the Global Note, then from 8.00 p.m. (London time) on such day each Accountholder will become entitled to proceed directly against the Issuer and the registered holder will have no further rights under the Global Note.

Exchanges will be made upon presentation of the Global Note at the office of the Registrar by or on behalf of the registered holder on any day on which banks are open for general business in Luxembourg and will be effected by the Registrar (a) entering each Accountholder in the Register as the registered holder of the principal amount of Notes equal to such Accountholder's holding and (b) completing, authenticating and dispatching to each Accountholder a Definitive Note evidencing such Accountholder's holding. The Issuer will, at the cost of the Issuer (but against such indemnity as the Registrar may require in respect of any tax or other duty of whatever nature which may be levied or imposed in connection with such exchange), cause sufficient Definitive Notes to be executed and delivered to the Registrar for completion, authentication and dispatch to the relevant Accountholders. The aggregate principal amount of the Notes evidenced by Definitive Notes issued upon an exchange of the Global Note will be equal to the aggregate outstanding principal amount of the Notes evidenced by the Global Note.

An Accountholder must provide the Registrar with a written order containing instructions and such other information as the Issuer and the Registrar may require to effect the exchange of the Global Note as provided above.

The Global Note is not a document of title. Entitlements are determined by entry in the Register and only the registered holder from time to time is entitled to payment in respect of the Global Note.

Upon the exchange of the whole of the Global Note for Definitive Notes, the Global Note shall be surrendered to, or to the order of, the Registrar and cancelled.

Any reference herein to Euroclear or Clearstream shall, wherever the context so permits, be deemed to include a reference to any Alternative Clearing System.

Book-Entry; Clearing Systems; Settlement; Delivery and Form

Information concerning Euroclear or Clearstream

All book-entry interests will be subject to the operations and procedures of Euroclear or Clearstream, as applicable. The Issuer provides the summaries of those operations and procedures provided in this Offering Memorandum solely for the convenience of holders of Notes. The operations and procedures of each settlement system are controlled by that settlement system and may be changed at any time. The Issuer, the Guarantor, the Managers, the Agent and the Registrar are not responsible for those operations or procedures.

Euroclear and Clearstream hold securities for participating organizations. They also facilitate the clearance and settlement of securities transactions between their respective participants through electronic book-entry changes in the accounts of such participants. Euroclear and Clearstream provide various services to their participants, including the safekeeping, administration, clearance, settlement, lending and borrowing of internationally traded securities. Euroclear and Clearstream interface with domestic securities markets. Euroclear and Clearstream participants are financial institutions such as underwriters, securities brokers and dealers, banks, trust companies and certain other organizations. Indirect access to Euroclear and Clearstream is also available to others such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Euroclear and Clearstream participant, either directly or indirectly.

Because Euroclear and Clearstream can only act on behalf of participants, who in turn act on behalf of indirect participants and certain banks, the ability of an owner of a beneficial interest to pledge such interest to persons or entities that do not participate in the Euroclear or Clearstream systems, or otherwise take actions in respect of such interest, may be limited by the lack of a Definitive Note for that interest. The Issuer understands that, under existing industry practices, if either the Issuer or the Agent requests any action by owners of book-entry interests or if an owner of a book-entry interest desires to give or take any action that a holder is entitled to give or take under the Conditions and the Agency Agreement, Euroclear or Clearstream would authorize participants owning the relevant book-entry interest to give or take such action, and such participants would authorize indirect participants to give or take such action or would otherwise act upon the instructions of such indirect participants.

The laws of some jurisdictions require that certain persons take physical delivery of securities in definitive form. Consequently, the ability to transfer beneficial interests to such person may be limited.

Action by owners of book-entry interests

The Issuer understands from Euroclear or Clearstream that they will take any action permitted to be taken by a holder of Notes only at the direction of one or more participants to whose account the book-entry interests in the Global Note are credited and only in respect of such portion of the aggregate principal amount of Notes as to which such participant or participants has or have given such direction. Euroclear or Clearstream will not exercise any discretion in the granting of consents, waivers or the taking of any other action in respect of the Global Note.

Transfers

Transfers between participants in Euroclear or Clearstream will be effected in accordance with the respective rules of Euroclear or Clearstream and will be settled in immediately available funds.

Book entry interests in the Global Note will be subject to the applicable restrictions on transfer and certification requirements.

Although Euroclear or Clearstream currently follow the foregoing procedures in order to facilitate transfers of interests in the Global Note among participants in Euroclear or Clearstream, as the case may be, they are under no obligation to perform or continue to perform such procedures, and such procedures may be discontinued or modified at any time. None of the Issuer, the Guarantor, the Agent, the Registrar or any of their respective agents will have any responsibility for the performance by Euroclear or Clearstream or their respective participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

Timing considerations

Investors should be aware that Noteholders will only be able to make and receive deliveries, payments and other communications involving Notes through Euroclear or Clearstream on days when those systems are open for business.

Regulations concerning the transfer and registration of Notes and payments on the Notes and replacement of Definitive Notes.

The following is an extract from the Agency Agreement and contains terms which regulate (amongst other things) the transfer and registration of Notes, payments on the Notes and the replacement of Definitive Notes. It is subject to the provisions set out in "Overview of Provisions Relating to the Notes While in Global Form".

1. One or more Notes may, subject as provided below, be transferred upon the surrender (at the specified office of the Registrar or the Agent) of the Definitive Note representing such Notes to be transferred, together with the form of transfer endorsed on such Definitive Note (or another form of transfer substantially in the same form and containing the same representations and certifications (if any), unless otherwise agreed by the Issuer), duly completed and executed and any other evidence as the Registrar or Agent may reasonably require. In the case of a transfer of part only of a holding of Notes represented by one Definitive Note, a new Definitive Note shall be issued to the transferee in respect of the part transferred and a further new Definitive Note in respect of the balance of the holding not transferred shall be issued to the transferor. A Note may not be transferred unless the principal amount of the Notes transferred (and where not all of the Notes held by a Noteholder are transferred, the principal amount of the balance of the Notes not transferred) are in a specified denomination. In the case of a transfer of Notes to a person who is already a Noteholder, a new Definitive Note representing the enlarged holding may be issued but only against surrender of the Definitive Note representing the existing holding of such person. All transfers of Notes and entries on the Register will be made subject to the terms of the Agency Agreement.

2. Each new Definitive Note to be issued pursuant to the Conditions shall be available for delivery within ten Business Days of receipt of the form of transfer and surrender of the Definitive Note for exchange. Delivery of the new Definitive Note(s) shall be made at the specified office of the Agent or of the Registrar (as the case may be) to whom delivery or surrender of such form of transfer or Definitive Note(s) shall have been made or, at the option of the Noteholder making such delivery or surrender as aforesaid and as specified in the relevant form of transfer or otherwise in writing, be mailed by uninsured post at the risk of the Noteholder entitled to the new Definitive Note(s) to such address as may be so specified, unless such Noteholder requests otherwise and pays in advance to the Registrar or Agent (as applicable) the costs of such other method of delivery and/or such insurance as it may specify.

3. Transfers of Notes and the issuance of new Definitive Notes on transfer shall be effected without charge by or on behalf of the Issuer, the Agent or the Registrar, but upon payment of any tax or other governmental charges by the person submitting such Definitive Notes that may be imposed in relation to the transfer or its registration (or the giving of such indemnity as the Registrar or the Agent may require).

4. No Noteholder may require the transfer of a Note to be registered (i) during the period of 15 days ending on the due date for redemption of that Note, (ii) during the period of 15 days prior to any date on which Notes may be called for redemption by the Issuer at its option pursuant to Condition 4, (iii) after any such Note has been called for redemption or (iv) during the period of seven days ending on (and including) any Record Date.

5. Payments of principal in respect of Notes shall be made against surrender of the relevant Definitive Notes at the specified office of the Agent or the Registrar and in the manner provided in paragraph below.

   Interest (including Deferred Interest) on the Notes shall be paid to the person shown on the Register at the close of business on the fifteenth day before the due date for payment thereof (the "**Record Date**"). Payments of interest on each Note shall be made by transfer to an account maintained by or on behalf

of the payee with a bank and (in the case of interest payable on redemption) upon surrender of the relevant Definitive Notes at the specified office of any of the Agent or of the Registrar.

6. All payments are subject in all cases to (i) any applicable fiscal or other laws, regulations and directives applicable in the place of payment and (ii) any withholding or deduction required pursuant to any FATCA Provisions, but in each case without prejudice to the provisions of Condition 6. No commission or expenses shall be charged to the Noteholders in respect of such payments.

7. If a Definitive Note is lost, stolen, mutilated, defaced or destroyed, it may be replaced, subject to applicable laws, regulations and stock exchange or other relevant authority regulations, at the specified office of the Registrar on payment by the claimant of the fees and costs incurred in connection therewith and on such terms as to evidence, security and indemnity (which may provide, *inter alia*, that if the allegedly lost, stolen or destroyed Definitive Note is subsequently presented for payment, there shall be paid to the Issuer on demand the amount payable by the Issuer in respect of such Definitive Notes) and otherwise as the Issuer may require. Mutilated or defaced Definitive Notes must be surrendered before replacements will be issued.

Taxation

Switzerland

The following statements contain an overview of the Swiss tax implications resulting from the Notes. This summary is based on legislation, regulations and regulatory practices, in each case as of the date of this Offering Memorandum, and a tax ruling with the Swiss Federal Tax Administration, and does not aim to be a comprehensive description of all the Swiss tax considerations that may be relevant to a decision to invest in the Notes.

Potential investors are advised not to rely upon the tax summary contained in this Offering Memorandum but to ask for their own tax adviser's advice on their individual taxation with respect to the acquisition, ownership and sale of, and other events in relation to, the Notes. Only these advisers are in a position to duly consider the specific situation of the potential investor. The tax treatment of the Notes depends on the individual tax situation of the relevant investor and may be subject to change.

Swiss Withholding Tax

Payments of interest (including original issue discount, repayment premium or interest accrued upon redemption) by the Issuer on the Notes, failing which by the Guarantor, will not be subject to Swiss federal withholding tax, pursuant to a ruling received from the Swiss federal tax authority dated February 25, 2019 and confirmed by such tax authority on February 28, 2019, concerning the application of the administrative practice note issued by the tax authority on February 5, 2019, and subject to compliance with the terms and conditions of such ruling (including the restrictions on the use of proceedings and reporting requirements stipulated therein)

Potential new Swiss withholding tax legislation

On November 4, 2015 the Swiss Federal Council announced that it had mandated the Swiss Federal Finance Department to appoint a group of experts to prepare a proposal for a reform of the Swiss withholding tax system. The proposal is expected to, among other things, replace the current debtor-based regime applicable to interest payments with a paying agent-based regime for Swiss withholding tax. This paying agent-based regime is expected to be similar to the one contained in the draft legislation published by the Swiss Federal Council on December 17, 2014, which was subsequently withdrawn on June 24, 2015. However, on October 23, 2017, the Swiss Federal Economic Affairs and Taxation Committee of the Swiss National Council filed a parliamentary initiative reintroducing the request to replace the current debtor-based regime applicable to interest payments with a paying agent-based system for Swiss withholding tax. The initiative requests the implementation of a paying agent-based system that (i) subjects all interest payments made to individuals resident in Switzerland to Swiss withholding tax and (ii) provides an exemption from Swiss withholding tax for interest payments to all other persons (including Swiss corporations). If any such a new paying agent-based regime were to be enacted and were to result in the deduction or withholding of Swiss withholding tax on any interest payments in respect of a Note by any person other than the Issuer, failing which the Guarantor, the Noteholder would not be entitled to receive any Additional Amounts as a result of such deduction or withholding under the terms of the Notes.

Swiss securities turnover tax

The issue, and the sale and delivery, of Notes on the Issue Date and the giving of the Guarantee will not be subject to Swiss securities turnover tax (*Umsatzabgabe*) (primary market). Secondary market dealings in Notes will be subject to Swiss securities turnover tax at a rate of up to 0.30% of such consideration paid for the Notes, however, in each case only if a Swiss domestic bank or a Swiss domestic securities dealer (as defined in the Swiss Federal Stamp Duty Act) is a party, or acts as an intermediary, to the transaction and no statutory exemption applies in respect of the one or other party to the transaction. Subject to any such statutory exemption for the one or other party, generally half of the tax is charged to the one and the other half to the other party to the transaction. Where both the seller and the purchaser of the Notes are not residents of Switzerland or the Principality of Liechtenstein, no Swiss federal stamp securities turnover tax applies.

Swiss Income Taxation

Notes held by Non-Swiss Noteholders

A Noteholder who is not resident in Switzerland and who during the taxation year has not engaged in a trade or business carried on through a permanent establishment in Switzerland to which the Note is attributable will in respect of such Note not be subject to income tax in Switzerland.

For a discussion of the potential new Swiss withholding tax legislation replacing the current issuer-based withholding tax system for a paying-agent based system, see above under "—Swiss Withholding Tax — Potential new Swiss withholding tax legislation", for a discussion of the automatic exchange of information in tax matters, see below under "—International Automatic Exchange of Information in Tax Matters" and for a discussion of the Swiss facilitation of the implementation of the Foreign Account Tax Compliance Act, see below under "—Swiss Facilitation of the Implementation of the U.S. Foreign Account Tax Compliance Act".

Notes held by Swiss resident Noteholders as private assets

Notes without a "predominant one-time interest payment": If the yield-to-maturity of a Note predominantly derives from periodic interest payments and not from a one-time-interest-payment such as an original issue discount or a repayment premium, then a Noteholder who is an individual resident in Switzerland and who holds the Note as a private asset is required to include in his or her personal income tax return for the relevant tax period any periodic interest payments and any one-time interest payment received on the Note in such period, converted into Swiss Francs at the exchange rate prevailing at the time of payment, as the case may be, and will be taxable on any net taxable income (including such amounts) for the relevant tax period. A gain, which may include interest accrued or gain relating to an exchange rate change or a market interest rate change, realized on the sale of such a Note is a tax-free private capital gain, and a loss realized on the sale of such a Note a non-tax deductible private capital loss.

Notes with a "predominant one-time interest payment": If the yield-to-maturity of a Note predominantly derives from a one-time-interest-payment such as an original issue discount or a repayment premium and not from periodic interest payments, then a Noteholder who is an individual resident in Switzerland and holds the Note as a private asset, is required to include in his or her personal income tax return for the relevant tax period any periodic interest payments and any one-time interest payment received on the Note in such period, converted into Swiss Francs at the exchange rate prevailing at the time of payment, as the case may be, and, in addition, any amount equal to the difference between the value of the Note at redemption or sale, as applicable, and its value at issuance or secondary market purchase, as applicable, and converted into Swiss Francs at the exchange rate prevailing at the time of sale or redemption, issuance or purchase, respectively, and will be taxable on any net taxable income (including such amounts) for the relevant tax period. Any value decrease realized on such Note on sale or redemption may be offset by such a Noteholder against any gains (including periodic interest payments) realized by him or her within the same taxation period from other securities with a predominant one-time interest payment.

Notes held as Swiss business assets

Individuals who hold Notes through a business in Switzerland, and Swiss-resident corporate taxpayers, and corporate taxpayers resident abroad holding Notes through a permanent establishment situated in Switzerland, are required to recognize payments in respect of the Notes and a gain or loss realized on the disposal or redemption of Notes (including relating to a foreign currency exchange rate change or market interest rate change) in their income for the relevant tax period, and will be taxable on any net taxable earnings for such tax period at the then prevailing tax rates. The same taxation treatment also applies to Swiss-resident individuals who, for Swiss income tax purposes, classify as "professional securities dealers" for reasons of, among other things, frequent dealings, or leveraged transactions, in securities.

International Automatic Exchange of Information in Tax Matters

Switzerland has concluded a multilateral agreement with the European Union on the international automatic exchange of information (the "**AEOI**") in tax matters. The agreement became effective as of January 1, 2017, and applies to all 28 EU member states and also Gibraltar. Also, on January 1, 2017, the multilateral competent authority agreement on the automatic exchange of financial account information (the "**MCAA**"), and based on the MCAA, a number of bilateral AEOI agreements with other countries, became effective. Based on such

agreements and the implementing laws of Switzerland, Switzerland collects data in respect of financial assets, including, as the case may be, Notes, held in, and income derived thereon and credited to, accounts or deposits with a paying agent in Switzerland for the benefit of individuals resident in an EU member state or resident in a treaty state from 2017 or 2018 and exchanges the data or will exchange it from 2018 or 2019, in each case depending on the effectiveness of the relevant agreement. Switzerland has signed and intends to sign further AEOI agreements with further countries, which, subject to ratification, will become effective at a later date. An up-to-date list of the AEOI agreements of Switzerland in effect or signed and becoming effective can be found on the website of the State Secretariat for International Financial Matters.

Swiss Facilitation of the Implementation of the U.S. Foreign Account Tax Compliance Act

Switzerland has concluded an intergovernmental agreement with the United States to facilitate the implementation of FATCA (as defined above). The agreement ensures that the accounts held by U.S. persons with Swiss financial institutions are disclosed to the U.S. tax authorities either with the consent of the account holder or by means of group requests within the scope of administrative assistance. Information will not be transferred automatically in the absence of consent, and instead will be exchanged only within the scope of administrative assistance on the basis of the double taxation agreement between the U.S. and Switzerland. For further information on FATCA, see the discussion below under "—United States Taxation — FATCA."

Luxembourg

The following information is of a general nature and is included herein solely for information purposes. It is based on the laws presently in force in Luxembourg, though it is not intended to be, nor should it be construed to be, legal or tax advice. Prospective investors in the Notes should therefore consult their own professional advisers as to the effects of state, local or foreign laws, including Luxembourg tax law, to which they may be subject.

Please be aware that the residence concept used under the respective headings below applies for Luxembourg income tax assessment purposes only. Any reference in the present section to a tax, duty, levy, impost or other charge or withholding of a similar nature refers to Luxembourg tax law and/or concepts only. Also, please note that a reference to Luxembourg income tax encompasses corporate income tax (impôt sur le revenu des collectivités), municipal business tax (impôt commercial communal), a solidarity surcharge (contribution au fonds pour l'emploi), as well as personal income tax (impôt sur le revenu) generally. Corporate investors may further be subject to net wealth tax (impôt sur la fortune) as well as other duties, levies or taxes. Corporate income tax, municipal business tax, as well as the solidarity surcharge, invariably apply to most corporate taxpayers resident of Luxembourg for tax purposes. Individual taxpayers are generally subject to personal income tax and the solidarity surcharge. Under certain circumstances, where an individual taxpayer acts in the course of the management of a professional or business undertaking, municipal business tax may apply as well.

Withholding Tax

Non-resident Noteholders

Under Luxembourg general tax laws currently in force there is no withholding tax on payments of principal, premium or interest made to non-resident Noteholders, nor on accrued but unpaid interest in respect of the Notes, nor is any Luxembourg withholding tax payable upon redemption or repurchase of the Notes held by non-resident Noteholders.

Resident Noteholders

Under Luxembourg general tax laws currently in force and subject to the law of December 23, 2005 as amended (the "**Law**"), there is no withholding tax on payments of principal, premium or interest made to Luxembourg resident Noteholders, nor on accrued but unpaid interest in respect of Notes, nor is any Luxembourg withholding tax payable upon redemption or repurchase of Notes held by Luxembourg resident Noteholders.

Under the Law, payments of interest or similar income made or ascribed by a paying agent established in Luxembourg to or for the benefit of an individual beneficial owner who is a resident of Luxembourg will be subject to a withholding tax of 20%. Such withholding tax will be in full discharge of income tax if the beneficial owner is an individual acting in the course of the management of his/her private wealth.

Responsibility for the withholding of the tax will be assumed by the Luxembourg paying agent. Payments of interest under the Notes coming within the scope of the Law will be subject to withholding tax of 20%.

Income Taxation

Non-resident Noteholders

A non-resident Noteholder, not having a permanent establishment or permanent representative in Luxembourg to which, or to whom, such Notes are attributable, is not subject to Luxembourg income tax on interest accrued or received, redemption premiums or issue discounts, under the Notes. A gain realized by such non-resident Noteholder on the sale or disposal, in any form whatsoever, of the Notes is further not subject to Luxembourg income tax.

A non-resident corporate Noteholder or an individual Noteholder acting in the course of the management of a professional or business undertaking, who has a permanent establishment or permanent representative in Luxembourg to which, or to whom, such Notes are attributable, is subject to Luxembourg income tax on interest accrued or received, redemption premiums or issue discounts, under the Notes and on any gains realized upon the sale or disposal, in any form whatsoever, of the Notes.

Resident Noteholders

Noteholders who are residents of Luxembourg will not be liable for any Luxembourg income tax on repayment of the principal.

Luxembourg resident corporate Noteholders

A corporate Noteholder must include any interest accrued or received, any redemption premium or issue discount, as well as any gain realized on the sale or disposal, in any form whatsoever, of the Notes, in its taxable income for Luxembourg income tax assessment purposes.

A Noteholder that is governed by the law of May 11, 2007 on family estate management companies, as amended, or by the law of February 13, 2007 on specialized investment funds, as amended, or by the law of December 17, 2010 on undertakings for collective investment, as amended, or by the law of July 23, 2016 on reserved alternative investment funds and which does not fall under the special tax regime set out in article 48 thereof, is neither subject to Luxembourg income tax in respect of interest accrued or received, any redemption premium or issue discount, nor on gains realized on the sale or disposal, in any form whatsoever, of the Notes.

Luxembourg resident individual Noteholders

An individual Noteholder, acting in the course of the management of his/her private wealth, is subject to Luxembourg income tax at progressive rates in respect of interest received, redemption premiums or issue discounts, under the Notes, except if (i) withholding tax has been levied on such payments in accordance with the Law or (ii) the individual Noteholder has opted for the application of a 20% tax in full discharge of income tax in accordance with the Law, which applies if a payment of interest has been made or ascribed by a paying agent established in a Member State (other than Luxembourg), or in a member state of the EEA (other than a Member State). A gain realized by an individual Noteholder, acting in the course of the management of his/her private wealth, upon the sale or disposal, in any form whatsoever, of Notes is not subject to Luxembourg income tax, provided this sale or disposal took place more than six months after the Notes were acquired. However, any portion of such gain corresponding to accrued but unpaid interest income is subject to Luxembourg income tax, except if withholding tax has been levied on such interest in accordance with the Law.

An individual Noteholder acting in the course of the management of a professional or business undertaking must include any interest accrued or received, any redemption premium or issue discount, as well as any gain realized on the sale or disposal, in any form whatsoever, of the Notes, in its taxable income for Luxembourg income tax assessment purposes. If applicable, the tax levied in accordance with the Law will be credited against his/her final tax liability.

Net Wealth Taxation

A corporate Noteholder, whether it is resident of Luxembourg for tax purposes or, if not, maintains a permanent establishment or a permanent representative in Luxembourg to which such Notes are attributable, is subject to Luxembourg wealth tax on such Notes, except if the Noteholder is governed by (i) the law of May 11, 2007 on family estate management companies, as amended, or (ii) the law of February 13, 2007 on specialized investment funds, as amended, or (iii) the law of December 17, 2010 on undertakings for collective investment, as amended, or (iv) the law of July 23, 2016 on reserved alternative investment funds, or if the Noteholder is (a) a securitization company governed by the law of March 22, 2004 on securitization, as amended, or (b) is a capital company governed by the law of June 15, 2004 on venture capital vehicles, as amended. Noteholders should be aware that securitization companies governed by the law of March 22, 2004 on securitization, as amended, or capital companies governed by the law of June 15, 2004 on venture capital vehicles, as amended, or reserved alternative investment funds governed by the law of July 23, 2016 and which fall under the special tax regime set out under article 48 thereof may, under certain conditions, be subject to minimum net wealth tax.

An individual Noteholder, whether he/she is resident of Luxembourg or not, is not subject to Luxembourg wealth tax on such Notes.

Other Taxes

In principle, neither the issuance nor the transfer of Notes will give rise to any Luxembourg registration tax, transfer tax or similar taxes or duties.

However, a nominal ad valorem registration duty may be due upon the registration of the Notes in Luxembourg where the Notes are physically attached to a public deed or to any other document subject to mandatory registration, as well as in the case of a registration of the Notes on a voluntary basis.

Where a Noteholder is a resident of Luxembourg for tax purposes at the time of his/her death, the Notes are included in his/her taxable estate for inheritance tax assessment purposes.

Gift tax may be due on a gift or donation of Notes if embodied in a Luxembourg deed passed in front of a Luxembourg notary or recorded in Luxembourg.

United States Taxation

FATCA

See "Risk Factors—Risks Relating to the Notes—There is a possibility of U.S. reporting and withholding tax on payments under the Notes." for a discussion of a possibility that a U.S. withholding tax may apply on payments under the Notes. No additional amounts shall be payable on account of any taxes payable or required to be withheld or deducted pursuant to any U.S. withholding tax that is imposed or collected by reason of the FATCA Provisions in accordance with Condition 6 or Condition 9.

Subscription and Sale

Pursuant to a subscription agreement dated on or about March 15, 2019 (the "**Subscription Agreement**"), the Managers have jointly and severally agreed with the Issuer and the Guarantor, subject to the satisfaction of certain conditions, to subscribe for Notes at the Issue Price less commissions and expenses.

The Subscription Agreement entitles each Manager to terminate and to be discharged from its obligations under the Subscription Agreement in certain circumstances prior to payment to the Issuer. The Issuer and the Guarantor have agreed to indemnify the Managers against certain liabilities in connection with the offer and sale of the Notes and may be required to contribute to payments that the Managers may be required to make in respect thereof.

No action has been or will be taken in any jurisdiction that would permit a public offering of the Notes or the possession, circulation or distribution of any material relating to us, in any jurisdiction where action for such purpose is required. Accordingly, the Notes may not be offered or sold, directly or indirectly, nor may any offering material or advertisement in connection with the Notes be distributed or published, in or from any country or jurisdiction, except under circumstances that will result in compliance with any applicable rules and regulations of any such country or jurisdiction.

United States

The Notes and the Subordinated Guarantee (the "**Securities**") have not been and will not be registered under 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. Accordingly, the Securities are being offered and sold only to non-U.S. persons located outside the United States in reliance upon Regulation S under the Securities Act.

Each Manager has also agreed that it, each of its affiliates and each person acting on its or their behalf have complied and will comply with the offering restriction requirements of Regulation S; and at or prior to confirmation of a sale of Securities it will have sent to each distributor, dealer or other person receiving a selling concession, fee or other remuneration to which it sells Securities during the distribution compliance period a confirmation or other notice setting forth the restrictions on offers and sales of the Securities within the United States or to, or for the account or benefit of U.S. persons. Each Manager has also represented and agreed with us that no directed selling efforts (as defined in Regulation S) have been made or will be made in the United States by the Managers, any of their affiliates or any person acting on behalf of any of the Managers or their affiliates in respect to the Securities; and neither it, any of its affiliates, nor anyone acting on its or their behalf has solicited offers for, offered or sold the Securities by any form of general solicitation or general advertising (as those terms are used in Regulation D under the Securities Act) in the United States in connection with the Offering or otherwise in any manner involving a public offering within the meaning of Section 4(a)(2) of the Securities Act.

Terms used in the preceding paragraph have the meanings ascribed to them by Regulation S under the Securities Act, as applicable.

European Economic Area

Each Manager has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes to any retail investor in the EEA. For the purposes of this provision the expression **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 MiFID II; or (ii) a customer within the meaning of the Insurance Mediation Directive, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II.

United Kingdom

Each Manager has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21

of the FSMA) received by it in connection with the issue or sale of the Notes in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer or the Guarantor; and

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

Switzerland

The Notes may not be publicly offered, sold or advertised, directly or indirectly, in, into or from Switzerland and will not be listed on the SIX Swiss Exchange or any other exchange or regulated trading facility in Switzerland. Neither this Offering Memorandum nor any other offering or marketing material relating to the Notes constitutes (i) a prospectus as such term is understood pursuant to Article 652a or 1156 of the Swiss Code of Obligations, (ii) a listing prospectus within the meaning of the listing rules of the SIX Swiss Exchange or any other regulated trading facility in Switzerland or (iii) a prospectus as such term is defined in the Swiss Federal Act on Collective Investment Schemes and neither this Offering Memorandum nor any other marketing material relating to the Notes may be publicly distributed or otherwise made publicly available in Switzerland.

Hong Kong

Each Manager has represented, warranted and agreed that:

(a) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Notes, other than (i) to "**professional investors**" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the "**SFO**") and any rules made under that Ordinance; or (ii) in other circumstances which do not result in the document being a "**prospectus**" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong (the "**C(WUMP)O**") or which do not constitute an offer to the public within the meaning of the C(WUMP)O; and

(b) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Notes, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "**professional investors**" as defined in the SFO and any rules made under the SFO.

Singapore

Each Manger has acknowledged that this Offering Memorandum has not been registered as a prospectus with the Monetary Authority of Singapore (the "**MAS**"). Accordingly, each Manager has represented, warranted and agreed that it has not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Memorandum or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore as modified or amended from time to time (the "**SFA**")) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six (6) months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

(1) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(2) where no consideration is or will be given for the transfer;

(3) where the transfer is by operation of law;

(4) as specified in Section 276(7) of the SFA; or

(5) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

General Information

Authorizations

The issuance of the Notes and the giving of the Subordinated Guarantee, respectively, were authorised by the Issuer and the Guarantor by resolutions of the Issuer's board of directors and the SRZ Board of Directors passed on March 1, 2019 and February 20, 2019, respectively.

Listing

There is currently no public market for the Notes. Application has been made to the Luxembourg Stock Exchange, in its capacity as market operator of the Euro MTF Market under the Luxembourg act relating to prospectuses for securities (*loi relative aux prospectus pour valeurs mobilières*), and for the Notes to be admitted to the Official List and to be admitted for trading on the Euro MTF. There can be no assurance that the Notes offered hereby will be listed and admitted to trade on the Euro MTF Market. References in this Offering Memorandum to the Notes being "**listed**" (and all related references) will mean that the Notes have been admitted to the Official List and have been admitted to trading on the Euro MTF Market. The Euro MTF Market of the Luxembourg Stock Exchange is not a regulated market pursuant to the provisions of Directive 2014/65/EU on markets in financial instruments.

Listing Agent

Deutsche Bank Luxembourg S.A. is acting solely in its capacity as listing agent for the Issuer in connection with the Notes and is not itself seeking admission of the Notes to the Euro MTF Market.

Clearing Systems

The Notes have been accepted for clearance and settlement through the facilities of Euroclear and Clearstream.

The ISIN for the Notes is XS1963116964. The Common Code for the Notes is 196311696.

Responsibility

The Issuer and the Guarantor each accept responsibility for the information contained in this Offering Memorandum. To the best of the knowledge of the Issuer and the Guarantor (having taken all reasonable care to ensure that such is the case), the information contained in this Offering Memorandum is in accordance with the facts and does not omit anything likely to affect the import of such information.

Information on Business Outlook for the Guarantor Group

Overview

We expect global economic expansion to remain positive in 2019, albeit at a slowing pace. We believe that insurance premiums in the advanced markets are likely to increase, in line with economic growth rates, in 2019. We expect emerging market premiums to continue to outperform on the back of increasing penetration levels and solid growth, particularly in China. Our ongoing work to reduce the protection gap, and address the barriers to demand and supply that prevent more insurance uptake, continues to expand our potential market.

The natural catastrophe events of 2017 led to a notable recovery in market discipline in 2018. Encouragingly, this discipline has begun to spread to other lines of business, including the under-priced U.S. casualty insurance market. The increasing discipline has led to improved pricing and the exit of several (re)insurers from otherwise unsustainable markets. We would not be surprised by further exits in 2019, and believe this represents an opportunity for a long-term, stable and resilient reinsurer such as us.

Hence, we expect broadly stable non-life reinsurance prices in 2019, even while underlying primary commercial line prices increase. We allow for moderately increasing interest rates as a base case in 2019, but will continue to focus our underwriting on the key loss drivers. We continue to closely monitor inflationary trends and their effects on claims severity. Our capital allocation process takes this into account, and as a result, we remain comfortable that the risk is within our expectations.

Our outlook remains unchanged compared to 2018 – we are positive about the opportunities available to us through three distinctive abilities. We believe that our ability to engage in large and tailored transactions has created a market that values these truly distinctive capabilities. We continue to see growing demand for solutions and services that deploy our research and development to clients. Finally, we retain our ability to rapidly and flexibly deploy capital across an industry-leading product and geographic franchise.

We believe that our strong underwriting discipline combined with our solid capitalization will support us in playing a leading role in making the world more resilient.

Property & Casualty Reinsurance

Renewals of loss-affected natural catastrophe business experienced rate increases. We had opportunities to grow our natural catastrophe business in North America at attractive terms. In non-loss affected markets, rates remain stable overall, with some minor volatility.

We observed notable differences within Specialty lines with rate increases for loss-affected lines and markets, and otherwise stable terms and conditions. For Casualty, rates increased in segments where improvements were needed due to claims emergence. We continued to seize good opportunities for transactions.

Specifically, in January 2019, we renewed 19% greater premium volume up for renewal compared to January 2018 (1% of which was attributable to price changes and 18% of which was attributable to exposure changes), benefitting from large transactions (which contributed to 14% of premium volume) and growth in core business (which contributed to 5% of premium volume). The volume of premiums cancelled largely reflected underwriting discipline across all lines. Price quality (which reflects the discounted premiums net of commissions/discounted expected claims, adjusted for portfolio mix effects and represents our newly introduced metric to replace long-term price adequacy) increased by 1%. Our renewals in January 2019 were dominated by non-loss-affected areas, although improvements were most pronounced in loss-affected Property & Casualty reinsurance lines. The growth in premiums was principally driven by increases in natural catastrophe business, particularly in the United States (where we experienced a 22% increase in premiums), and Casualty business (where we experienced a 35% increase in premiums) and, to a lesser extent, Specialty business (where we experienced a 7% increase in premiums), partially offset by a decrease in Property business, excluding natural catastrophes (where we experienced a 9% decline in premiums). The increase in our natural catastrophe business was driven by growth in the United States, while the increase in our Casualty business was driven by large transactions (particularly a large short-tail transaction in the small- and medium sized enterprise space). We expect further price improvements in the forthcoming renewals (particularly of the loss-affected Japanese and U.S. property businesses) later this year.

For Property & Casualty, we will increase our market share where prices, terms and conditions meet our expectations. We believe that our differentiation model and the solutions we offer will allow us to access further attractive opportunities.

Life & Health Reinsurance

We expect life and health treaty reinsurance business to grow modestly in mature markets compared to a stronger increase in high growth markets. In mature markets, the prolonged low interest rate environment continues to have an unfavorable impact on long-term life business. Cession rates are expected to be broadly stable in major markets. We see a continued strong focus on capital, risk and balance sheet optimization in mature markets, leading to ongoing opportunities for large transactions.

We will continue to pursue growth opportunities in high growth markets and in large transactions, including longevity deals. We are responding to the expanding need for health protection driven by ageing societies and we will apply our risk knowledge experience to help reduce the protection gap in all regions.

Investments

We expect global economic growth to slow in 2019, particularly in advanced markets. Across the United States and Europe, tighter financial conditions and lingering political concerns as well as the impact from a waning U.S. fiscal stimulus are likely to weigh on growth. Asia is expected to experience a moderate slowdown in economic growth but remains the strongest region globally, while Latin America is expected to experience a modest recovery in economic growth, albeit from a low base.

Amid still-positive economic momentum globally, we expect underlying inflation pressures to rise. Amid continued above-trend (albeit slowing) growth, we expect underlying inflationary pressures to rise and for central banks in the advanced markets (especially the U.S. Federal Reserve) to continue towards moderate global monetary policy tightening in 2019. After a projected total of four interest rate hikes in 2018, we expect the U.S. Federal Reserve to increase rates further in 2019, whose hiking cycle and balance sheet reduction are approaching the final stages. Meanwhile, we believe the ECB is likely to keep its refinancing rate unchanged in 2019, having fully unwound its asset purchase programs in 2018. We also expect the Bank of England to increase interest rates in 2019, though this is contingent on our assumption that the United Kingdom will not exit the European Union in a disorderly manner. We also expect tighter monetary policy in emerging markets, with the exception of China. While many emerging market central banks (including in Russia, India and Turkey) have started to tighten monetary policy, we expect others (e.g., in Brazil and South Africa) to follow suit by hiking interest rates amid rising inflationary pressures on the back of weaker currencies. By contrast, we expect the Chinese central bank to accommodate the adverse impact from higher tariffs via looser fiscal and monetary policies.

In contrast to 2018's outlook (which was more balanced), the balance of risks is skewed to the downside amid increasing protectionism (such as further worsening of trade relations between the United States and China and possible escalation to a global trade war) and ongoing monetary policy tightening. Concerns about global economic recession (especially in the United States) and the political climate (including the withdrawal of the United Kingdom from the European Union and the European Parliament election as well as elections in India, South Africa and Argentina) add to the uncertainty.

We will thus seek to continue to maintain a well-diversified and high-quality investment portfolio, braced for further bouts of market volatility in 2019.

Statement of no material adverse change

Save as disclosed herein, there has been no material adverse change in the prospects of the Issuer or the Guarantor since December 31, 2018, the end of the last financial period for which audited financial information for the Issuer and the Guarantor Group has been published. See "Financial and Other Information Included or Incorporated by Reference in this Offering Memorandum."

Litigation

None of the Issuer, the Guarantor or any other member of the Guarantor Group has been involved in any litigation, governmental, or arbitration proceedings, including any such proceedings which are pending or threatened of which we are aware, during the 12 months preceding the date of these listing particulars which may have, or have had in the recent past, a significant effect on its financial position or profitability.

Independent Auditors

The Guarantor Group Financial Statements, which are incorporated by reference in this Offering Memorandum, have been audited by PricewaterhouseCoopers Ltd, Birchstrasse 160, 8050 Zurich, as independent auditor, as stated in its reports appearing therein. PricewaterhouseCoopers Ltd is a member of EXPERTsuisse – Swiss Expert Association for Audit, Tax and Fiduciary.

The Issuer Financial Statements have been prepared in accordance with Luxembourg legal and regulatory requirements relating to the preparation of financial statements and have been audited by PricewaterhouseCoopers, Société coopérative as the independent auditor (*réviseur d'entreprises agréé*) of the Issuer, as stated in its reports appearing therein. The registered address of PricewaterhouseCoopers, Société coopérative is 2, rue Gerhard Mercator, L–2182 Luxembourg. Pricewaterhouse Coopers, Société coopérative is a member of the Luxembourg *Institut des Réviseurs d'Entreprises.*

Documents Available

Printed copies of this Offering Memorandum and documents that are incorporated by reference in this Offering Memorandum can be obtained free of charge at the offices of the Agent at Winchester House, 1 Great Winchester Street, London EC2N 1DB, United Kingdom. Documents that are incorporated by reference in this Offering Memorandum will be published on the official website of the Luxembourg Stock Exchange (http://www.bourse.lu).

Copies of the Agency Agreement and each of the Issuer's and the Guarantor's Articles of Association and Memorandum of Association will be available at the offices of the Agent set out above during normal business hours, so long as any of the Notes is outstanding.

Copies of future published audited financial statements of the Issuer will be available on the website of the Swiss Re Group at www.swissre.com/investors/debt. Copies of future published audited consolidated financial statements and unaudited interim semi-annual consolidated financial statements of the Guarantor Group will be available on the website of the Swiss Re Group at www.swissre.com/investors/financial_information. Except for the Financial Statements, no information contained on the Swiss Re Group web site, or on any other web site, is incorporated herein by reference.

Other Relationships

Certain of the Managers and their affiliates have engaged, and may in the future engage, in investment banking and/or commercial banking transactions with, and may perform services to the Issuer and/or the Guarantor, and their affiliates in the ordinary course of business. In addition, in the ordinary course of their business activities, the Managers and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of the Issuer, the Guarantor or their affiliates. Certain of the Managers or their affiliates that have a lending relationship with the Issuer and/or the Guarantor or their affiliates routinely hedge their credit exposure to the Issuer and/or the Guarantor or their affiliates consistent with their customary risk management policies. Typically, they would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in the Issuer's or the Guarantor's securities, including potentially the Notes. Any such short positions could adversely affect future trading prices of the Notes. The Managers and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

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