Zurich Insurance Group

Financial Condition Report 2019

Zurich Insurance Group

Contents

The information published in this report is consistent with the information published in the Annual Report 2019 of Zurich Insurance Group and the regulatory reporting of the Zurich Insurance Group for the year 2019, including the regulatory reporting to the Swiss Financial Market Supervisory Authority (FINMA) on the Swiss Solvency Test, in accordance with Art. 25 ISA and Art. 53 ISO. While the financial statements and the information therein were subject to audit by the statutory auditor of Zurich Insurance Group Ltd, PricewaterhouseCoopers AG (see Appendix 3), there was no external audit or review of this report. Please further note that while this report has been filed with FINMA, FINMA has not reviewed the report.

Overview

Business profile

Zurich Insurance Group (Zurich) is a leading multi-line insurer that serves its customers in global and local markets. With about 55,000 employees, it provides a wide range of property and casualty, and life insurance products and services in more than 215 countries and territories.

Total revenues
USD 52.3bn[1]

Business operating profit
USD 5.3bn[2]

Total Group investments
USD 205bn[3]

System of governance

Good corporate governance enables Zurich to create sustainable value for its shareholders, customers, employees and other stakeholders.

Our enterprise risk management framework (ERM) supports achievement of Zurich's strategy and helps protect capital, liquidity, earnings and reputation.

Risk profile

The Group's Z-ECM ratio decreased from 124 percent as of January 1, 2019 to 118 percent as of July 1, 2019. The January 1, 2020 is 129 percent. The development of the Z-ECM ratio in 2019 was driven mainly by continued economic profit generation, net of the dividend accrual, which was partially offset by an increase in market risk due to the low interest rate environment.

Zurich Economic Capital Model ratio as of January 1, 2020
Z-ECM 129%

Financial condition

The Group maintained its strong rating level in 2019. As of December 31, 2019, the Insurance Financial Strength Rating of Zurich Insurance Company Ltd, the main operating entity of the Group was revised from stable to positive; 'AA-/Positive' by S&P Global Ratings, 'Aa3/Stable' by Moody's, and 'A+(Superior)/Stable by A.M. Best.

Shareholders' equity
USD 35.0bn

Swiss Solvency Test ratio as of January 1, 2020
SST 198%

Standard and Poor's financial strength rating as of December 31, 2019
AA–/Positive

[1] Total revenues excluding investment result on unit-linked investments.
[2] Business operating profit (BOP) indicates the underlying performance of the Group's business units by eliminating the impact of financial market volatility and other non-operational variables.
[3] Market value of investment portfolio (economic view)

Acronyms

AC	Audit Committee
AEC	Ordinance Against Excessive Compensation
AFR	available financial resources
AG	Aktiengesellschaft (stock company)
AGM	Annual General Meeting
APAC	Asia Pacific
APE	annual premium equivalent
BEL	best estimate liability
bn	billion
BOP	business operating profit
BRL	Brazilian real
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CHF	Swiss franc
CIO	Chief Investment Officer
COO	Chief Operating Officer
CRO	Chief Risk Officer
DAC	deferred acquisition of costs
EMEA	Europe, Middle East & Africa
ERM	enterprise risk management
EUR	euro
ExCo	Executive Committee
FCR	Financial Condition Report
FGI	Farmers Group, Inc.
FINMA	Swiss Financial Market Supervisory Authority
FMIA	Financial Market Infrastructure Act
GBP	Great Britain pound
IFRS	International Financial Reporting Standards
IIA	Institute of Internal Auditors
ISA	Swiss Insurance Supervision Act
ISDA	International Swaps and Derivatives Association
ISO	Insurance Supervision Ordinance
Ltd	Limited
M&A	mergers & acquisitions
MCBS	market consistent balance sheet
NBM	new business margin
NBV	new business value
PH div	policyholder dividends
P&C	property and casualty
PwC	PricewaterhouseCoopers AG
Q	quarter
SFCR	Solvency and Financial Condition Report
SIX	Swiss stock exchange
SST	Swiss Solvency Test
TCFD	Task Force on Climate-related Financial Disclosures
TRP	Total Risk Profiling™
UK	United Kingdom
UPR	unearned premium reserves
U.S.	United States
USD	United States dollar
Z-ECM	Zurich Economic Capital Model
ZIC	Zurich Insurance Company Ltd
ZIG	Zurich Insurance Group Ltd (holding company)

Introduction

How to read the report

Zurich Insurance Group's (Zurich or the Group) financial condition report is prepared in compliance with Art. 26 ISA and FINMA's Circular 2016/2 'Disclosure – insurers'. The report focuses on the 2019 financial year, and should be read in conjunction with the Annual Report 2019 of Zurich Insurance Group (available on www.zurich.com/en/investor-relations). Wherever applicable, this report makes reference to the Group's Annual Report for more information.

The report presents information following the structure given in FINMA's circular. It covers Zurich's business activities, performance, corporate governance and risk management, risk profile, valuation, capital management and solvency. Quantitative information supporting the presentation of the information refers to different frameworks applicable or mandatory to the Group:

- 'Business activities'-related and 'Performance' are presented based on International Financial Reporting Standards (IFRS).
- The 'Risk profile' section makes reference to the Zurich Economic Capital Model (Z-ECM), the Group's own internal model. The Z-ECM and the Swiss Solvency Test (SST) model are based on the same fundamentals and are largely aligned. The risk profile analysis is supported with Z-ECM results per risk type. Z-ECM results are also used to present the economic capital adequacy of the Group, in the 'Capital management' section.
- 'Valuation' presents the market-consistent balance sheet (MCBS) of the Group following Swiss Solvency Test (SST) principles. The SST MCBS is compared with the IFRS balance sheet as of December 31, 2019.
- Finally, the 'Solvency' section also shows the regulatory capital adequacy, supported by the results of the SST.

The report discusses the main differences between the Z-ECM and the SST model on page 73. In accordance with the Group's Annual Report, the reference currency is the U.S. dollar. Zurich calculates Z-ECM results quarterly; however, only results as of January 1 and July 1 are published each year. SST ratios are calculated as of January 1, following FINMA requirements.

FINMA mandates the disclosure of quantitative templates for insurance groups that are presented in Appendix 1.

1 Executive summary

Business activities

Zurich Insurance Group is a leading multi-line insurer that serves its customers in global and local markets. With about 55,000 employees, it provides a wide range of property and casualty, and life insurance products and services in more than 215 countries and territories. Zurich's customers include individuals, small businesses, and mid-sized and large companies, as well as multinational corporations.

Company results

The Group's business operating profit (BOP) of USD 5.3 billion increased by USD 0.7 billion or 16 percent in U.S. dollar terms. This increase reflects underlying growth across the business and strong underwriting performance in Property & Casualty (P&C). The Life business also delivered strong underlying performance against an already strong 2018 result, after adjusting for the impact of closed acquisitions and disposals as well as currency movements. Farmers Management Services also contributed to the improvement in BOP, in line with the development of gross earned premiums at the Farmers Exchanges[1] and also benefiting from favorable impacts on a deferred compensation plan, while the Farmers Life business also demonstrated continued growth in the in-force portfolio, favorable experience and positive impacts from annual assumption updates.

Corporate governance and risk management

Zurich Insurance Group, consisting of Zurich Insurance Group Ltd and its subsidiaries (the Group or Zurich), is committed to effective corporate governance for the benefit of its shareholders, customers, employees and other stakeholders based on the principles of fairness, transparency and accountability. Structures, rules and processes are designed to enable proper conduct of business by defining the powers and responsibilities of its corporate bodies and employees.

[1] The Farmers Exchanges are owned by their policyholders. Farmers Group, Inc, a wholly-owned subsidiary of the Group, provides certain non-claims services and ancillary services to the Farmers Exchanges as attorney-in-fact and receives fees for its services.

Introduction *continued*

Group pursues a customer-centric strategy and is managed by regions, and in addition, Farmers in the U.S. and Commercial Insurance globally. The Executive Committee (ExCo) is headed by the Group CEO. Six members of the ExCo represent the Group's businesses: the CEOs of the regions (CEO North America, CEO Europe, Middle East & Africa (EMEA) and Bank Distribution, CEO Latin America, CEO Asia Pacific), the CEO of Farmers and the CEO of Commercial Insurance. Four members of the ExCo represent Group functions: the Group Chief Financial Officer (Group CFO), the Group Chief Investment Officer (Group CIO), the Group Chief Risk Officer (Group CRO) and the Group Chief Operating Officer (Group COO). The Group COO has responsibility for operations and technology as well as underwriting, claims,
and pricing, creating a unified sense of purpose and responsibility for technical excellence, efficiency and business transformation across all parts of the business. The Group CFO is also responsible for Group Reinsurance.

Taking risk is inherent to the insurance business; such risk-taking needs to be made in an informed and disciplined way and within a pre-determined risk appetite and tolerance. This is the primary objective of Zurich's approach to risk management. Our integrated risk management framework supports the achievement of the Group's strategy by upholding an effective risk-based control environment and helps protect capital, liquidity, earnings, and reputation.

Risk profile

The Group identifies, assesses, manages, monitors and reports risks that have an impact on the achievement of its strategic objectives by applying its proprietary Total Risk Profiling™ (TRP) methodology. The methodology allows Zurich to assess risks in terms of severity and probability and supports the definition and implementation of mitigating actions. At Group level, this is an annual process, followed by regular reviews and updates by management.

The Group's commitment to sustainability, including managing the risks posed by climate change, continues to be an integral part of Zurich's risk management approach. The Group promotes best practices by managing the interconnectivity of environmental, social and governance (ESG) risks by engaging with its customers and investees.

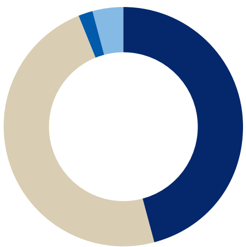
The Group's exposure to risks resulting from digital transformation are assessed for cyber, information technology, data security and risks arising from emerging technologies and innovation to ensure our business remains resilient in the future.

The Group regularly reports on its risk profile at local and Group levels. The Group has procedures to refer risk topics to senior management and the Board of Directors in a timely way. To foster transparency about risk, the Board receives quarterly risk reports and risk updates. In 2019, reporting was supplemented with in-depth risk insights into topics such as information security management, accumulation risk, long-tail Life risk, credit risk and country risk.

Economic risk profile

The Group uses Z-ECM to assess the economic capital consumption of its business on a one-balance-sheet approach. Z-ECM is an integral part of how the Group is managed. It is embedded in the Group's organization and decision-making processes, and is used in capital allocation, business performance management, pricing, and communication. Z-ECM quantifies the capital required for insurance-related risk (including premium and reserve, natural catastrophe, business and life insurance risk), market risk including investment credit risk, reinsurance credit risk, other credit risk, and operational risk.

Total Z-ECM capital required: USD 34.5 billion
%, as of January 1, 2020



Insurance risk	**46%**
Market risk, including investment credit risk	**48%**
Other credit risk	**2%**
Operational risk	**4%**

The Group's Z-ECM ratio decreased from 124 percent as of January 1, 2019 to 118 percent as of July 1, 2019. The January 1, 2020 is 129 percent. The development of the Z-ECM ratio in 2019 was driven mainly by continued economic profit generation, net of dividend accrual, which was partially offset by an increase in market risk due to the low interest rate environment.

Valuation for SST purposes

Assets and liabilities are derived and valued in accordance with FINMA guidelines and are then matched to calculate the risk-bearing capital from the Group's market-consistent balance sheet (MCBS).

The market value of investments increased by USD 10.5 billion from USD 185.5 billion as of 2018 to USD 196.0 billion as of 2019.

The market-consistent value of total other assets decreased by USD 0.9 billion from USD 179.8 billion as of 2018 to USD 178.9 billion in 2019.

The market value best estimate of provisions for insurance liabilities increased by USD 8.3 billion from USD 162.8 billion as of 2018 to USD 171.1 billion as of 2019.

Best estimate of provisions for unit-linked life insurance liabilities decreased by USD 6.8 from USD 129.5 billion in 2018 to USD 122.7 billion in 2019.

The market-consistent value of other liabilities has increased by USD 4.3 billion from USD 33.8 billion 2018 to USD 38.1 billion in 2019.

Capital management

Zurich Insurance Group manages capital to maximize long-term shareholder value while maintaining financial strength within its 'AA' target range, and meeting regulatory, solvency and rating agency requirements. Shareholders' equity of USD 35.0 billion, subordinated debt of USD 6.9 billion and senior financial debt of USD 3.2 billion, excluding net new issued senior debt since the second quarter of 2018, were part of the capital available in the Group's economic framework as at December 31, 2019. Further adjustments usually include items such as intangible assets, deferred tax assets and liabilities, allowing for discounting of liabilities and the value of in-force business, or inclusion of market value margin and expected profit over the next 12 months.

Solvency

FINMA has established the Swiss Solvency Test (SST) to assess risk quantitatively. Zurich reports the SST ratio annually to FINMA. The risk categories follow FINMA guidelines and focus on insurance, market and credit risk.

The Group uses an adaptation of its internal Zurich Economic Capital Model (Z-ECM) to comply with the SST requirements.

In 2019, Zurich continued to enhance its internal model, advanced the approval process with FINMA, and has received approval for specific enhancements of the model.

Based on the enhanced SST internal model the SST ratio as of January 1, 2020 stands at 198 percent, 23 percentage points lower compared to the SST ratio as of January 1, 2019. Following the favorable model change impact, the SST ratio decreased, as the strong operational capital generation from the businesses was offset by negative financial market movements during the year and the dividend accrual.

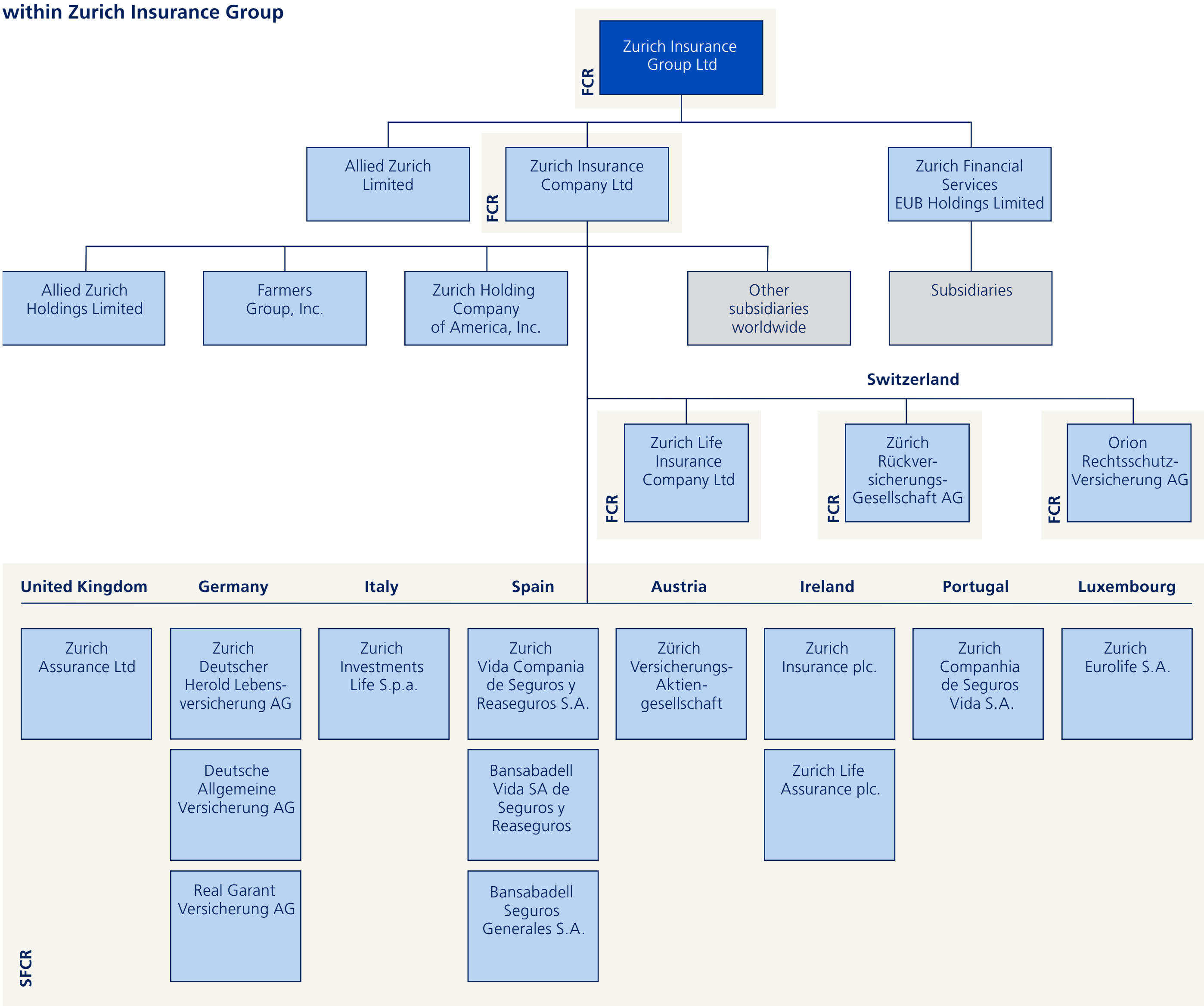
2 Approval of the Financial Condition Report

This Report was reviewed and signed-off by the Board of Directors of Zurich Insurance Group Ltd on May 13, 2020.

A. Business activities

A.1 Company structure and major subsidiaries

Public reporting on solvency and financial condition within Zurich Insurance Group



SFCR: Solvency and Financial Condition Report (Solvency II; from 2016) **FCR:** Financial Condition Report (Swiss regulation; from 2017)

Subsidiary Group of subsidiaries

Note: The purpose of the chart above is to provide a simplified overview of the Group's major subsidiaries (as of December 31, 2019), with special focus on the public reporting of their solvency and financial condition. Please note that this is a simplified representation showing entities that must publish such a report and therefore it may not comprehensively reflect the detailed legal ownership structure of the entities included in the overview. The ordering of the legal entities under each country is not indicative of ownership; these are independent legal entities.

Zurich is a leading multi-line insurer that serves its customers in global and local markets. With about 55,000 employees, Zurich provides a wide range of property and casualty, and life insurance products and services in more than 215 countries and territories. Zurich's customers include individuals, small businesses, and mid-sized and large companies, as well as multinational corporations. The Group is headquartered in Zurich, Switzerland, where it was founded in 1872.

The Group consists of Zurich Insurance Group Ltd (holding entity 'ZIG') and its subsidiaries. Zurich Insurance Company Ltd ('ZIC Ltd') is the principal operating insurance company of ZIG. ZIC Ltd and its subsidiaries are collectively referred to as 'Zurich Insurance Company Group' or 'ZIC Group.'

The subsidiaries of ZIC Ltd in scope of the public disclosure requirements under Swiss regulation are:

- Zurich Life Insurance Company Ltd
- Zurich Reinsurance Company Ltd
- Orion Rechtsschutz-Versicherung AG.

The ZIC Ltd subsidiaries based in the European Union produce their own Solvency and Financial Condition Reports under Solvency II regulation. All reports are accessible through Zurich's website https://www.zurich.com/en/investor-relations/results-and-reports/other-statutory-filings.

The significant subsidiaries of Zurich Insurance Group are presented in Appendix 2 of this document.

Transactions in 2019

Acquisitions

OnePath

On December 11, 2017, the Group announced that it had entered into an agreement to acquire 100 percent of the Australian life and consumer credit insurance business (OnePath Life and OnePath General Insurance, hereafter OnePath) of Australia and New Zealand Banking Group Limited (ANZ). In order to gain early exposure to a portion of OnePath's earnings, the Group entered into a quota share agreement to reinsure the existing death, disability and critical illness business of OnePath as of May 1, 2018 for an upfront commission payment of USD 754 million. On May 31, 2019, the Group completed its acquisition of OnePath for USD 1.4 billion, subject to purchase price adjustments. As part of the transaction, Zurich will enter into a 20-year strategic alliance agreement with ANZ in Australia to distribute life insurance products through its bank channels.

Adira Insurance

On September 27, 2018, Zurich Insurance Group entered into agreements to acquire 80 percent of PT Asuransi Adira Dinamika (Adira Insurance), a general insurance provider, from PT Bank Danamon Indonesia (Bank Danamon) and a minority investor for approximately USD 465 million, including potential future incremental payments based on business performance. The agreement includes a 20-year distribution agreement. On November 27, 2019, Zurich Insurance Group completed the acquisition. Based on the purchase price, the preliminary value of intangible assets, mainly comprising goodwill and distribution agreements, are estimated at USD 340 million, including the 20 percent portion relating to non-controlling interest.

Divestments

Held for sale

On November 19, 2019, Zurich Financial Services (UKISA) Limited and Allied Zurich Holdings Limited (AZH) entered into an agreement with Embark Group Limited (Embark) to sell the UK Retail Wealth business, which includes an Investment and Retail Wealth Platform business, Sterling ISA Managers Limited (SIML), and an Investment Management business, Zurich Investment Services (UK) Limited (ZISUK). The sale is expected to be completed in Q2 2020, subject to regulatory approval. The Group has recorded a pre-tax loss of USD 123 million in the statement of income, including an impairment of assets of USD 209 million. As of December 31, 2019, assets and liabilities reclassified to held for sale were USD 57 million and USD 7 million, respectively.

On September 15, 2019, Zurich Insurance plc entered into an agreement to transfer the German Architects & Engineers portfolio to Darag Group. As of December 31, 2019, assets reclassified to held for sale were USD 177 million and liabilities reclassified to held for sale were USD 177 million.

A. Business activities *continued*

On December 14, 2018, Zurich Insurance plc entered into an agreement with Catalina Holdings (Bermuda) Ltd and certain of its subsidiaries to transfer a portfolio of pre-2007 United Kingdom legacy employers' liability policies to Catalina London Limited, subject to regulatory and court approvals. The transfer is expected to be completed in 2020. As of December 31, 2019, assets reclassified to held for sale were USD 1.8 billion and liabilities reclassified to held for sale were USD 1.8 billion.

As of December 31, 2019, due to the completion of the sale of the UK workplace pensions and savings business by Zurich Assurance Ltd in the UK (see note below), the total assets and liabilities reclassified to held for sale decreased by USD 22 billion and USD 23.5 billion, to USD 2.1 billion and USD 2 billion, respectively.

UK workplace pensions and savings business
On October 12, 2017 the Group announced a strategic deal under which Lloyds Banking (LBG) would acquire the UK workplace pension and savings business. On April 3, 2018, Sterling ISA Managers Limited completed the sale of its Corporate Savings Platform together with the associated infrastructure, assets and business to LBG subsidiary, Scottish Widows Administration Services Limited. On July 1, 2019, the remaining insurance business was transferred by Zurich Assurance Ltd to Scottish Widows Limited by a UK court process under Part VII of the Financial Services and Markets Act 2000. In 2019, the Group has recorded a pre-tax gain of USD 24 million in the statement of income upon completion of the sale.

Venezuelan operations
On May 24, 2019, the Group completed the sale of its 69 percent participation in Zurich Seguros, S.A. The Group has recorded a pre-tax loss of USD 260 million, of which USD 258 million results from negative currency translation adjustments, in the statement of income upon completion of the sale.

ADAC Autoversicherung AG and Bonnfinanz AG
On January 1, 2019, the Group completed the sale of its 51 percent participation in ADAC Autoversicherung AG and on April 2, 2019, the Group completed the sale of Bonnfinanz AG, with pre-tax gains of USD 19 million and USD 39 million, respectively, recorded within net gains/(losses) on divestment of businesses.

A.2 Information about the company's strategy, objectives and key business segments

Zurich's business is focused on providing best-in-class insurance products and services to individuals, small businesses, mid-sized and large companies. Zurich's strategy:

- Focuses on customers by improving customer satisfaction and encouraging a transformation into a truly customer led company,
- Simplifies, by creating a more agile and responsive organization;
- Innovates, by providing better products, services and customer care.

Zurich's strategy to deliver long-term competitive advantage focuses on continuing to increase profitability and consolidating the Group's position as a leading global underwriter for property and casualty (P&C) and life insurance. The Group will continue to expand customer relationships and simplify the business. At the operating level, Zurich will continue to reduce complexity and improve accountability. Zurich will enhance technical excellence and strengthen its go-to-market approach for commercial customers. It will also seek to enhance its offerings to individuals by monitoring and aiming to increase customer satisfaction and retention. The Farmers Exchanges[1] will continue to focus on improving customer satisfaction and retention rates.

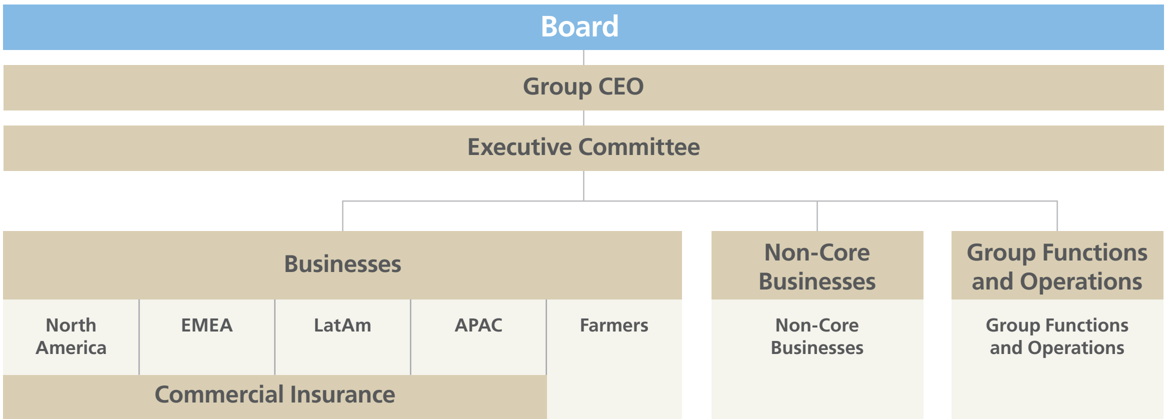
For additional information on the Group's strategy, see pages 8 to 17 of the Annual Report 2019.

[1] The Farmers Exchanges are owned by their policyholders. Farmers Group, Inc, a wholly-owned subsidiary of the Group, provides certain non-claims services and ancillary services to the Farmers Exchanges as attorney-in-fact and receives fees for its services.

Group structure

The following chart shows the operational group structure on December 31, 2019.

Operational Group structure
as of December 31, 2019



The Group's operating structure reflects the businesses operated by the Group and how these are strategically managed to offer different products and services to specific customer groups. The Group's reportable segments for 2019 comprised:

- **Regions (Europe, Middle East & Africa, North America, Latin America and Asia Pacific):** segments through which the Group provides a variety of property and casualty and life products to retail and commercial customers as well as reinsurance propositions. **Commercial Insurance** brings together corporate and commercial insurance expertise worldwide under a single umbrella.
  - **Property & Casualty** is the business through which the Group provides a variety of motor, home and commercial products and services for individuals, as well as small, mid-sized and large businesses.
  - The **Life business** pursues a strategy with market-leading propositions in unit-linked and protection products as well as fee-based solutions managed through three global pillars (Bank Distribution, Corporate Life & Pensions and Other Retail) to develop leading positions in its target markets.
- **Farmers** provides, through Farmers Group, Inc. (FGI) and its subsidiaries, certain non-claims services and ancillary services to the Farmers Exchanges[1] as attorney-in-fact. FGI receives fee income for the provision of services to the Farmers Exchanges[1], which are owned by their policyholders and managed by Farmers Group, Inc. a wholly owned subsidiary of the Group. Farmers also includes all reinsurance assumed from the Farmers Exchanges[1] by the Group. Farmers Exchanges[1] are prominent writers of personal and small commercial lines of business in the U.S.
- **Group Functions and Operations** comprise the Group's Holding and Financing and Headquarters activities. Certain alternative investment positions not allocated to business operating segments are included within Holding and Financing. In addition, Group Functions and Operations includes operational technical governance activities relating to technology, underwriting, claims, actuarial and pricing.
- **Non-Core Businesses** include insurance and reinsurance businesses that the Group does not consider core to its operations and that are therefore mostly managed to achieve a beneficial run-off. Non-core businesses are mainly situated in the U.S., Bermuda and the UK.

For details on the activities of the various businesses refer to note 27 of the audited consolidated financial statements in the Annual Report.

A list of the Group's significant subsidiaries can be found in Appendix 2.

[1] The Farmers Exchanges are owned by their policyholders. Farmers Group, Inc, a wholly-owned subsidiary of the Group, provides certain non-claims services and ancillary services to the Farmers Exchanges as attorney-in-fact and receives fees for its services.

A. Business activities *continued*

Joint ventures and distribution networks

In 2019 alone, Zurich gained access to over 40 million potential customers through new distribution agreements (and have gained access to over 80 million since 2016). These include distribution agreements with Brazilian retailer Havan and Tokyo Gas in Japan, as well as an exclusive agreement with Eni gas e luce to make it easier for its customers in Italy to get insurance. Zurich also agreed with MediaMarkt Saturn to make purchase protection available to its customers in Germany, and the Group entered an agreement to provide insurance and takaful products through Alliance Bank in Malaysia.

Information about significant shareholders within the meaning of Article 120 para 1 FMIA

According to the rules regarding the disclosure of significant shareholdings of Swiss companies listed in Switzerland, disclosure has to be made if certain thresholds starting at 3 percent are reached or if the shareholding subsequently falls below those thresholds. Disclosure must be made separately for purchase positions (including shares, long call options and short put options) and sale positions (including long put options and short call options). The percentage thresholds are calculated on the basis of the total amount of voting rights according to the number of shares issued as disclosed in the commercial register.

Zurich Insurance Group Ltd is obliged to announce shareholdings by third parties in its shares when notification is received from a third party that a threshold has been reached. During 2019, the Group received one such notification that a relevant threshold had been exceeded.

As of December 31, 2019, Zurich Insurance Group Ltd was not aware of any person or institution, other than BlackRock, Inc., New York (> 5 percent) and The Capital Group Companies, Inc., Los Angeles (> 5 percent), which, directly or indirectly, had an interest as a beneficial owner in shares, option rights and/or conversion rights relating to shares of Zurich Insurance Group Ltd exceeding the relevant thresholds prescribed by law.

The announcements related to these notifications can be found via the search facility on the SIX Disclosure Office's platform: www.six-exchange-regulation.com/de/home/publications/significant-shareholders.html.

Zurich Insurance Group Ltd is not aware of any person or institution which, as of December 31, 2019, directly or indirectly, alone or with others, exercised or was a party to any arrangements to exercise control over Zurich Insurance Group Ltd.

A.3 Information about the company's external auditors as per Article 28 ISA

PricewaterhouseCoopers AG (PwC), Birchstrasse 160, in 8050 Zurich, is Zurich Insurance Group Ltd's external auditor.

PwC assumes all auditing functions which are required by law and by the Articles of Association of Zurich Insurance Group Ltd. The external auditors are appointed by the shareholders of Zurich Insurance Group Ltd annually. At the Annual General Meeting on April 1, 2020, PwC was re-elected by the shareholders of Zurich Insurance Group Ltd.

A.4 Significant unusual events

For significant events during 2019 and thereafter until March 6, 2020, please refer to the Annual Report 2019 for Zurich Insurance Group, as well as to the news releases available at https://www.zurich.com/en/media/news-releases.

Additionally, it should be noted that the global response to COVID-19 is evolving and has the potential to impact the valuation of assets and liabilities presented in this FCR. Zurich Insurance Group is closely monitoring the impact of COVID-19 on its operations and financial results. As of May 14, 2020 market impacts have had an adverse impact to the reported SST ratio.

Finally, going forward the Group will apply the standard yield curves as allowed by the Swiss Financial Market Supervisory Authority FINMA (FINMA). As at March 31, 2020 and applying these yield curves, the Group estimates the SST ratio to be at 186 percent..

B. Performance

Financial highlights

in USD millions, for the years ended December 31	2018	2019	Change[1]
Business operating profit	4,566	**5,302**	16%
Net income attributable to shareholders	3,716	**4,147**	12%
P&C business operating profit	2,085	**2,878**	38%
P&C gross written premiums and policy fees	33,505	**34,184**	2%
P&C combined ratio	97.8%	**96.4%**	1.4 pts
Life business operating profit	1,554	**1,486**	(4%)
Life gross written premiums, policy fees and insurance deposit	33,448	**33,479**	0%
Life new business annual premium equivalent (APE)[2]	4,639	**4,331**	(7%)
Life new business margin, after tax (as % of APE)[2]	24.1%	**25.8%**	1.8 pts
Life new business value, after tax[2]	981	**976**	(1%)
Farmers business operating profit	1,643	**1,707**	4%
Farmers Management Services management fees and other related revenues	3,204	**3,780**	18%
Farmers Management Services managed gross earned premium margin	7.0%	**7.0%**	(0.0 pts)
Farmers Life new business annual premium equivalent (APE)[2]	84	**82**	(3%)
Average Group investments[3]	190,235	**190,237**	0%
Net investment result on Group investments[3]	6,288	**7,391**	18%
Net investment return on Group investments[3,4]	3.3%	**3.9%**	0.6 pts
Total return on Group investments[3,4]	0.6%	**8.2%**	7.6 pts
Shareholders' equity	30,189	**35,004**	16%
Z-ECM[5]	124%	**129%**	5 pts
Return on common shareholders' equity (ROE)[6]	13.1%	**14.4%**	1.3 pts
Business operating profit (after tax) return on common shareholders' equity (BOPAT ROE)[6]	12.1%	**14.2%**	2.2 pts

[1] Parentheses around numbers represent an adverse variance.
[2] Details of the principles for calculating new business are included in the Embedded Value Report in 2019. New business value and new business margin are calculated after the effect of non-controlling interests, whereas APE is presented before non-controlling interests.
[3] Including investment cash.
[4] Calculated on average Group investments.
[5] Ratio for December 31, 2019 reflects midpoint estimate with an error margin of +/- 5 pts.
[6] Shareholders' equity used to determine ROE and BOPAT ROE is adjusted for net unrealized gains/(losses) on available-for-sale investments and cash flow hedges.

Business operating profit (BOP) for the year ended December 31, 2019 was USD 5.3 billion, up 16 percent compared with the prior period. This was driven by underlying growth across the business and a strong underwriting performance in Property & Casualty.

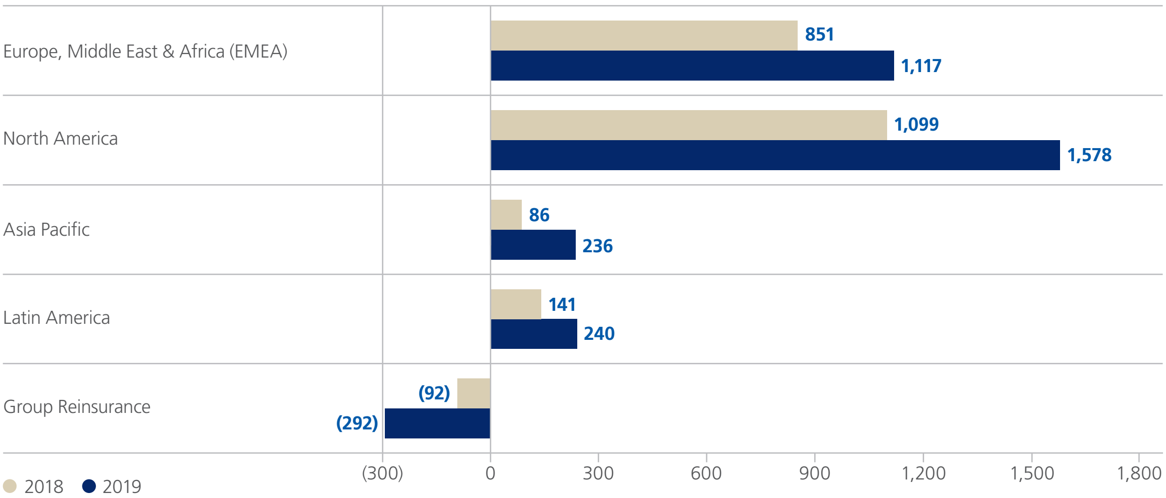
Net income attributable to shareholders (NIAS) increased 12 percent in the year 2019, with growth driven by the increase in business operating profit, higher realized gains, together with a reduction in the effective tax rate.

B. Performance *continued*

Property & Casualty (P&C)

in USD millions, for the years ended December 31	2018	2019	Total Change
Gross written premiums and policy fees	33,505	34,184	2%
Net earned premiums and policy fees	26,431	25,608	(3%)
Insurance benefits and losses, net of reinsurance	17,291	16,475	5%
Net underwriting result	574	922	61%
Net investment result	1,884	2,171	15%
Business operating profit	**2,085**	**2,878**	**38%**
Loss ratio	65.4%	64.3%	1.1 pts
Expense ratio	32.4%	32.1%	0.3 pts
Combined ratio	**97.8%**	**96.4%**	**1.4 pts**

P&C business operating profit (BOP)
in USD millions, for the years ended December 31



Property & Casualty gross written premiums returned to growth in 2019, increasing 2 percent on a reported basis in U.S. dollars terms and 6 percent on a like-for-like basis, after adjusting for closed acquisitions and disposals and currency movements. Underlying growth was achieved in all regions.

Net earned premiums for the year decreased 3 percent in U.S. dollars and increased 1 percent on a like-for-like basis, with growth impacted by the earn-through of reductions in gross written premiums in the prior year and changes in reinsurance programs.

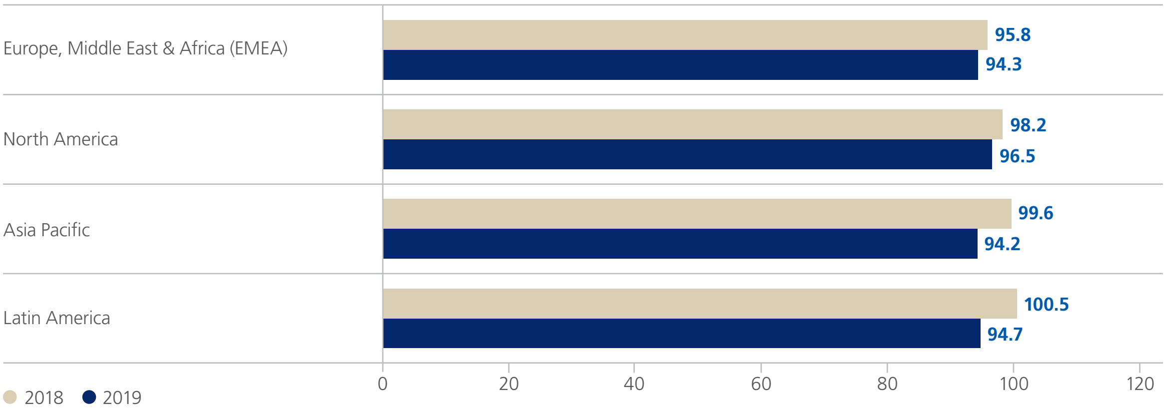
Business operating profit for the year ended December 31, 2019 was USD 2.9 billion, 38 percent higher than in the previous year, showing a strong performance across all regions. The strong regional performance was partly offset by higher losses in the Group Reinsurance unit.

The combined ratio improved by 1.4 percentage points to 96.4 percent in 2019, leading to a USD 348 million increase in the net underwriting result to USD 922 million.

Investment income increased by 1 percent, with growth in investment income in North America and Latin America more than offsetting a decline in Europe, Middle East & Africa (EMEA). The strong performance of financial markets in 2019 led to an increase in fair value gains on the Group's hedge fund portfolio amounting to USD 211 million compared to a loss of USD 48 million in 2018.

The contribution of other items, which include the net non-technical result and non-controlling interests, was USD 158 million higher than in the previous year, mainly driven by the absence of major restructuring charges included within business operating profit and a foreign exchange gain of USD 29 million.

P&C combined ratio
%, for the years ended December 31



The EMEA combined ratio of 94.3 percent for 2019 was 1.5 percentage points lower than in 2018, with improvement in the expense ratio and higher prior year reserve releases the main drivers.

In North America, the combined ratio was 96.5 percent, 1.7 percentage points below 2018, with a lower level of natural catastrophes and weather-related events in 2019 more than offsetting weaker results from the crop insurance portfolio.

The Asia Pacific combined ratio reduced by 5.3 percentage points to 94.2 percent, mainly due to improvements in other underwriting expenses and a lower level of natural catastrophes and weather-related events.

In Latin America, the combined ratio of 94.7 percent was 5.8 percentage points lower than in 2018, driven mainly by an improved accident year loss ratio in Mexico and Argentina and higher prior year reserve releases.

B. Performance *continued*

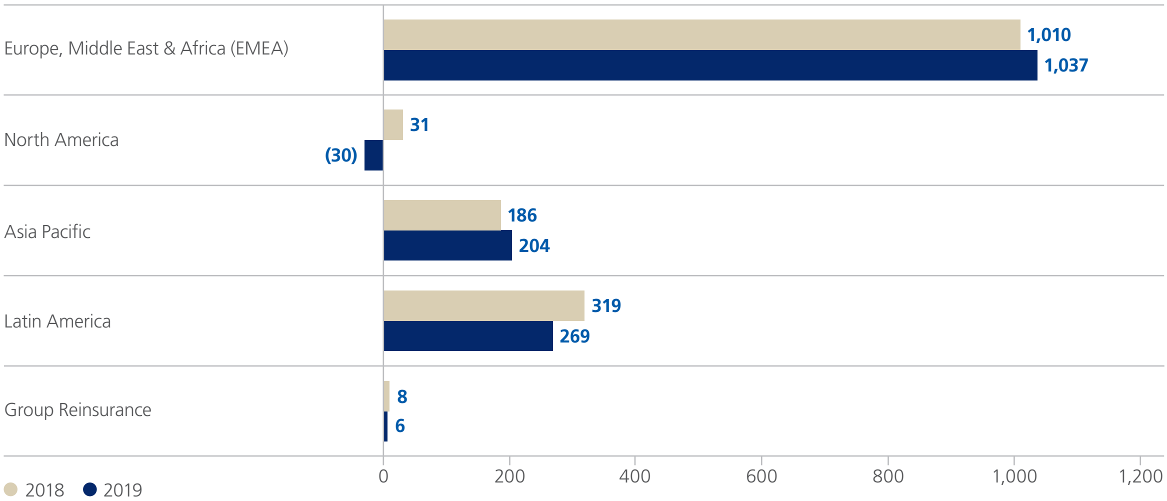
Life

in USD millions, for the years ended December 31	2018	2019	Change
Insurance deposits	18,694	18,328	(2%)
Gross written premiums and policy fees	14,754	15,151	3%
Net investment income on Group investments	3,035	2,915	(4%)
Insurance benefits and losses, net of reinsurance	(9,702)	(10,190)	(5%)
Business operating profit	**1,554**	**1,486**	**(4%)**
Net policyholder flows[1]	7,425	6,320	(15%)
Assets under management[2]	254,248	275,423	8%
Total reserves for life insurance contracts, net of reinsurance, and liabilities for investment contracts (net reserves)	202,024	226,765	12%

[1] Net policyholder flows are defined as the sum of gross written premiums and policy fees and deposits, less policyholder benefits.
[2] Assets under management comprise on balance sheet Group investments and unit-linked investments plus assets that are managed by third parties, on which fees are earned.

Life business operating profit (BOP)

in USD millions, for the years ended December 31



Life delivered strong underlying performance against an already strong 2018 result. Business operating profit decreased 4 percent to USD 1.5 billion due to a strengthening of the U.S. dollar against a number of key currencies compared to 2018 and increased 2 percent on a like-for-like basis, after adjusting for closed acquisitions and disposals and currency movements. Net positive one-off items included within the 2019 results were also lower than in the prior year.

In EMEA, business operating profit increased 3 percent in U.S. dollars and 9 percent on a like-for-like basis. Underlying growth was driven by a combination of business mix, expense savings, together with a number of favorable one-off items amounting to USD 54 million.

In Latin America, business operating profit decreased 16 percent in U.S. dollars compared to an increase of 6 percent on a like-for-like basis as a result of the devaluation of several Latin American currencies. Growth in the largest market Brazil was partially offset by higher claims in corporate protection business in Chile.

Asia Pacific business operating profit increased 10 percent in U.S. dollars, with a decrease of 4 percent on a like-for-like basis. The underlying reduction was driven primarily by weaker results in Australia which more than offset a gain related to the sale and lease-back of an own-use property.

In North America, earnings decreased by USD 61 million due to a combination of higher mortality claims and unfavorable assumption updates which offset a positive change in reserving methodology.

Net inflows decreased 15 percent compared to the prior year. The decline was primarily driven by lower volumes of savings business in EMEA which were only partially offset by higher volumes of unit-linked business in Latin America.

Assets under management increased 8 percent, mainly due to favorable market movements compared to 2018.

NBV, APE and NBM by Segment

in USD millions, for the years ended December 31	New business value, after tax (NBV)[1]		New business annual premium equivalent (APE)[2]		New business margin, after tax (as % of APE) (NBM)[3]	
	2018	**2019**	2018	**2019**	2018	**2019**
Europe, Middle East & Africa (EMEA)	619	576	2,890	2,760	22.8%	21.9%
North America	15	49	82	139	18.3%	35.2%
Asia Pacific	186	211	231	268	82.2%	79.9%
Latin America	161	140	1,437	1,164	15.3%	18.9%
Total	**981**	**976**	**4,639**	**4,331**	**24.1%**	**25.8%**

[1] New business value is calculated on embedded value principles net of non-controlling interests.
[2] APE is shown gross of non-controlling interests.
[3] New business margin is calculated using new business value as a percentage of APE based on figures net of non-controlling interests for both metrics.

2019 Life new business annual premium equivalent (APE) decreased 7 percent in U.S. dollars and 3 percent on a like-for-like basis.

In EMEA, like-for-like APE was flat as strong growth in the corporate pension business in Switzerland, higher unit linked sales in Italy, and higher retail protection sales in the UK were offset by the absence of a large corporate protection scheme concluded in 2018.

In Latin America APE sales decreased 15 percent on a like-for-like basis. Strong growth in Brazil was more than offset by the absence of a large corporate protection scheme in Chile written in 2018 and which is offered for tender every two years.

APE sales in Asia Pacific remained flat on a like-for-like basis. Growth in protection business in most countries was offset by lower sales in Japan.

North America APE grew 30 percent on a like-for-like basis with growth in all product lines.

New business value (NBV) increased 4 percent on a like-for-like basis and decreased 1 percent in U.S. dollars. Underlying improvements in business and country mix as well as positive operating assumptions were partially offset by adverse economic assumption updates.

EMEA and Latin America saw a decrease of NBV mainly due to adverse changes in economic assumptions and unfavorable foreign exchange movements.

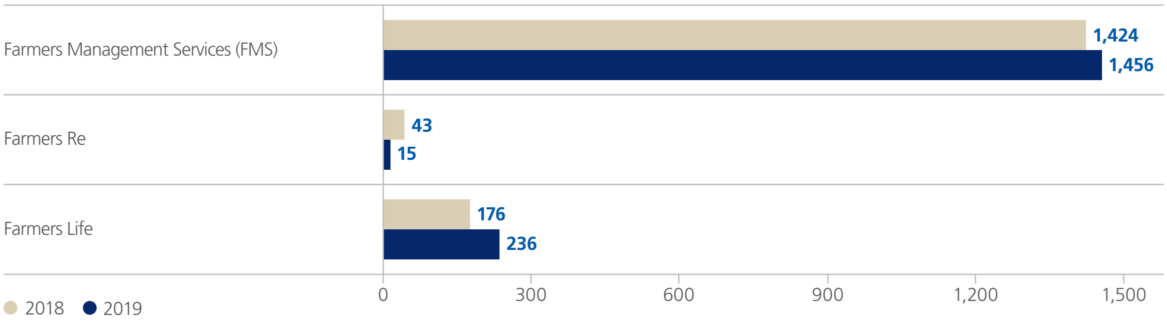
In APAC, the increase in NBV was largely driven by positive operating assumption changes. The North America NBV increased due to higher volumes and a favorable business mix.

The new business margin improved by 1.8 percentage points to 25.8 percent driven by the improvement in NBV.

B. Performance *continued*

Farmers

Farmers business operating profit (BOP)
in USD millions, for the years ended December 31



Farmers Management Services (FMS) business operating profit grew 2 percent in 2019. This was driven by 1 percent growth in the gross management result, in line with the development of the Farmers Exchanges'[1] gross earned premiums, and a USD 19 million favorable mark-to-market impact on a deferred compensation plan, compared with a USD 10 million unfavorable impact in 2018. The managed gross earned premium margin remained stable at 7.0 percent.

Farmers Re business operating profit of USD 15 million was USD 28 million lower than in 2018. This reflects the ongoing impact of the reduction in the all-lines quota share participation, further reduced to 0.25 percent effective December 31, 2019, as well as higher natural catastrophe losses and adverse prior year development from periods with a higher quota share participation.

Farmers Life business operating profit of USD 236 million was USD 59 million higher than in the prior year. Results benefited from a combination of continued growth in the in-force portfolio, favorable experience and a positive year-over-year impact from annual assumption updates. Within this, favorable mortality experience and lower amortization of deferred acquisition costs accounted for around half of the improvement.

Farmers Exchanges[1]

The Farmers Exchanges[1] are owned by their policyholders. Farmers Group, Inc., a wholly owned subsidiary of the Group, provides certain non-claims services and ancillary services to the Farmers Exchanges[1] as attorney-in-fact and receives fees for its services.

Financial information about the Farmers Exchanges[1] is proprietary to the Farmers Exchanges[1], but is provided to support an understanding of the performance of Farmers Group, Inc. and Farmers Re.

in USD millions, for the years ended December 31	2018	2019	Change
Gross written premiums	20,325	20,656	2%
Gross earned premiums	20,171	20,441	1%

The Farmers Exchanges[1] showed continued growth in top-line through 2019. Gross written premiums increased by 2 percent with growth across all lines of business. Growth was also supported by the expansion of the Farmers Exchanges[1] in the Eastern U.S., with gross written premiums up 6 percent in the expansion states, and a broadening of the agreement with Uber to provide commercial rideshare insurance in twelve additional states and the District of Columbia, building on the experience in the two states of Pennsylvania and Georgia.

[1] The Farmers Exchanges are owned by their policyholders. Farmers Group, Inc, a wholly-owned subsidiary of the Group, provides certain non-claims services and ancillary services to the Farmers Exchanges as attorney-in-fact and receives fees for its services.

Group Functions and Operations

in USD millions, for the years ended December 31	2018	2019	Change
Holding and Financing	(443)	(449)	(1%)
Headquarters	(310)	(268)	14%
Total business operating profit	**(753)**	**(716)**	**5%**

The business operating loss reported under Group Functions and Operations improved by USD 36 million to USD 716 million. This was driven by a USD 43 million reduction in headquarter expenses, while Holding and Financing costs remained in line with the prior year.

Non-Core Businesses

in USD millions, for the years ended December 31	2018	2019	Change
Zurich Legacy Solutions	43	(49)	nm
Other run-off	(7)	(3)	59%
Total business operating profit	**37**	**(52)**	**nm**

Non-Core Businesses, which comprise run-off portfolios that are managed with the intention of proactively reducing risk and releasing capital, reported an operating loss of USD 52 million. The loss primarily reflected the net impact of previously announced transactions to exit legacy portfolios related to UK employers' liability, U.S. asbestos and environmental business, and German professional architects' and engineers' professional indemnity, as well as reserve strengthening in selected portfolios.

Investment performance

The **net investment result on Group investments**, before allocations to policyholders, of USD 7.4 billion increased by USD 1.1 billion, or by 18 percent in U.S. dollar terms and by 21 percent on a local currency basis, resulting in a **net investment return on average Group investments** of 3.9 percent, 0.6 percentage points higher than in 2018.

Net investment income, predominantly included in the core business results, of USD 5.3 billion decreased by USD 89 million, or 2 percent in U.S. dollar terms impacted by a strengthening U.S. dollar and as a result of decreasing yields. On a local currency basis Net investment income increased 5 percent as result of the higher volume of assets invested and higher dividend income achieved throughout the year.

Net capital gains on investments and impairments included in the net investment result increased by USD 1.2 billion to USD 2.1 billion, mainly due to positive performing equity markets and decreasing yields during 2019. As a result, capital gains from equity, hedge funds and debt securities increased significantly compared with the prior period.

Total return on average Group investments was 8.2 percent, compared with 0.6 percent in the same period of 2018. Total return includes the net investment result, net capital gains and the favorable impact from net unrealized capital gains before allocations to policyholders reported in shareholders' equity, which were USD 8.2 billion positive compared with negative USD 5.1 billion in 2018. This increase was mainly a result of falling yields in major markets as well as well as positive performance in equity markets.

B. Performance *continued*

Net investment result on Group investments

in USD millions, for the years ended December 31	Net investment income		Net capital gains/(losses) and impairments		Net investment result		of which impairments	
	2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**
Investment cash	8	20	–	–	8	20	–	–
Equity securities	438	470	355	1,150	794	1,620	(218)	(80)
Debt securities	4,103	4,051	84	685	4,187	4,736	(32)	(129)
Investment property[1]	487	473	401	581	888	1,054	–	–
Mortgage loans	186	161	1	7	187	168	1	–
Other loans	382	365	14	27	397	393	12	(7)
Investments in associates and joint ventures	1	3	–	(1)	2	1	–	–
Derivative financial instruments	–	–	45	(356)	45	(356)	–	–
Investment result, gross, on Group investments	5,606	5,542	901	2,093	6,507	7,635	(238)	(216)
Investment expenses on Group investments	(219)	(244)	–	–	(219)	(244)	–	–
Investment result, net, on Group investments	**5,387**	**5,298**	**901**	**2,093**	**6,288**	**7,391**	**(238)**	**(216)**

[1] Rental operating expenses for investment property amounted to USD 141 million and USD 98 million for the years ended December 31, 2019 and 2018, respectively.

Net unrealized gains/(losses) on Group investments included in equity

in USD millions, as of December 31	Total	
	2018	**2019**
Equity securities: available-for-sale	137	1,570
Debt securities: available-for-sale	6,567	12,997
Other	164	536
Gross unrealized gains/(losses) on Group investments	6,868	15,103
Less amount of unrealized gains/(losses) on investments attributable to:		
Life policyholder dividends and other policyholder liabilities	(4,857)	(8,574)
Life deferred acquisition costs and present value of future profits	(490)	(914)
Deferred income taxes	(476)	(1,085)
Non-controlling interests	(33)	(91)
Total[1]	**1,012**	**4,439**

[1] Net unrealized gains/(losses) on Group investments include net gains arising on cash flow hedges of USD 454 million and USD 363 million as of December 31, 2019 and 2018, respectively.

C. Corporate governance and risk management

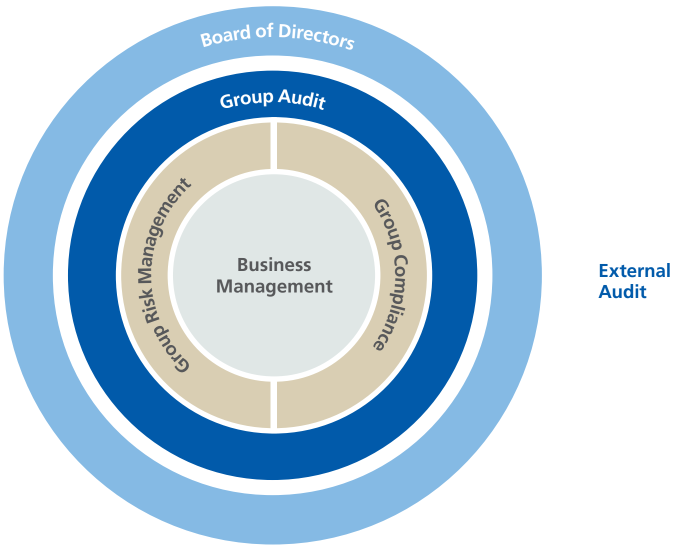
C.1 Corporate governance

C.1.1 Corporate governance

Zurich Insurance Group, consisting of Zurich Insurance Group Ltd and its subsidiaries (the 'Group' or 'Zurich'), is committed to effective corporate governance for the benefit of its shareholders, customers, employees and other stakeholders based on the principles of fairness, transparency and accountability. Structures, rules and processes are designed to enable proper conduct of business by defining the powers and responsibilities of its corporate bodies and employees.

At Zurich, various governance and control functions help to ensure that risks are identified and appropriately managed and internal controls are in place and operating effectively. The Board is ultimately responsible for the supervision of these activities. Although each governance and control function maintains its distinct mandate and responsibilities, the functions are closely aligned and co-operate with each other through a regular exchange of information, planning and other activities. This approach supports management in its responsibilities and provides confidence that risks are appropriately addressed and that adequate mitigation actions are implemented.

Three lines of defense at Zurich Insurance Group
as of December 31, 2019



Zurich uses the three- lines-of-defense model in its approach to governance and enterprise risk management. Zurich's three-lines-of-defense approach runs through Zurich's governance structure, so that risks are clearly identified, assessed, owned, managed and monitored.

- **1st line: Business Management**
  The first line of defense consists of business management and all functions except Group Risk Management, Group Compliance and Group Audit. The first line takes risks and is responsible for day-to-day risk management (i.e. risks are identified and monitored, mitigation actions are implemented and internal controls are in place and operating effectively).
- **2nd line: Group Risk Management and Group Compliance**
  The second line of defense consists of the two control functions, Group Risk Management and Group Compliance.

  Group Risk Management is responsible for Zurich's enterprise risk management framework. The Group CRO regularly reports risk matters to the Group CEO, senior management committees and the Risk and Investment Committee of the Board.

  Group Compliance is responsible for providing assurance to management that compliance risks within its mandate are appropriately identified and managed. The Group Chief Compliance Officer regularly provides reports to the Audit Committee and has an additional reporting line to the Chairman of the Audit Committee and appropriate access to the Chairman of the Board.
- **3rd line: Group Audit**
  The third line of defense consists of the assurance function Group Audit.

  Group Audit is responsible for auditing risk management, control and governance processes. The Head of Group Audit reports functionally to the Chairman of the Audit Committee and administratively to the Group CEO, and meets regularly with the Chairman of the Board and the Chairman of the Audit Committee and attends each meeting of the Audit Committee.
- **Board**
  The Board is ultimately responsible for the supervision of the control and assurance activities.

External Audit
External audit is responsible for auditing the Group's financial statements and for auditing Zurich's compliance with specific regulatory requirements. The Audit Committee regularly meets with the external auditors.

C. Corporate governance and risk management *continued*

C.1.2 Board of Directors

The Board, under the leadership of the Chairman, is responsible for determining the overall strategy of the Group, including a strong commitment to sustainability. It holds the ultimate decision-making authority for Zurich Insurance Group Ltd, except for decisions on matters reserved for the shareholders.

Board of Directors and its Committees
as of December 31, 2019

Board of Directors

Michel Liès*
Christoph Franz
Joan Amble
Catherine Bessant
Dame Alison Carnwath
Michael Halbherr
Jeffrey Hayman
Monica Mächler
Kishore Mahbubani
Jasmin Staiblin
Barry Stowe

Governance, Nominations & Sustainability Committee	Remuneration Committee	Audit Committee	Risk and Investment Committee
Michel Liès*	Christoph Franz*	Dame Alison Carnwath*	Jeffrey Hayman*
Dame Alison Carnwath	Catherine Bessant	Catherine Bessant	Joan Amble
Christoph Franz	Michel Liès	Jeffrey Hayman	Dame Alison Carnwath
Jeffrey Hayman	Kishore Mahbubani	Monica Mächler	Michael Halbherr
Monica Mächler	Jasmin Staiblin	Barry Stowe	Kishore Mahbubani

* Chairman of Board or Board Committee, respectively.

The members of the Board are elected by the shareholders at the Annual General Meeting (AGM). The Board constitutes itself in its first meeting after the AGM, except for the Chairman and the members of the Remuneration Committee who, as required by the Ordinance Against Excessive Compensation (AEC), in force since January 1, 2014, are elected by the shareholders.

The term of office of a Board member ends after completion of the next AGM. As a consequence, each member of the Board must be re-elected at the AGM each year.

Board of Directors, as of December 31, 2019

Board of Directors	Expiration of term of office
Michel M. Liès, Chairman	2020
Christoph Franz, Vice Chairman	2020
Joan Amble	2020
Catherine Bessant	2020
Dame Alison Carnwath	2020
Michael Halbherr	2020
Jeffrey Hayman	2020
Monica Mächler	2020
Kishore Mahbubani	2020
Jasmin Staiblin	2020
Barry Stowe	2020
Claudia Biedermann, Company Secretary	

Key governance developments in 2019 – at a glance
as of December 31, 2019

Board of Directors	Executive Committee
Election ▸ Michael Halbherr, elected as member of the Board (as of April 3, 2019) ▸ Jasmin Staiblin, elected as member of the Board (as of April 3, 2019) ▸ Barry Stowe, elected as member of the Board (as of April 3, 2019) **Retirements** ▸ David Nish, retired from the Board (as of April 3, 2019)	**New appointments** ▸ Peter Giger, Group Chief Risk Officer (Group CRO) (as of October 1, 2019) **Change of role** ▸ Alison Martin, CEO EMEA (Europe, Middle East & Africa) and Bank Distribution (as of July 9, 2019), former Group CRO **Resignations** ▸ Amanda Blanc, CEO EMEA and Bank Distribution (as of July 2, 2019)

David Nish did not stand for re-election at the AGM on April 3, 2019. All other Board members were re-elected for another one-year term. Michael Halbherr, Jasmin Staiblin and Barry Stowe were newly elected as members of the Board. As members of the Board Remuneration Committee, the AGM elected Catherine Bessant, Christoph Franz, Michel M. Liès, Kishore Mahbubani and Jasmin Staiblin. As independent voting rights representative, the shareholders elected lic. iur. Andreas G. Keller, attorney at law. See Zurich Insurance Group's Annual Report 2019, page 48 for further information on Board Committee membership in 2019.

The Board proposed to shareholders that they re-elect all current members of the Board at the AGM on April 1, 2020:

- as members: Michel M. Liès, Joan Amble, Catherine Bessant, Dame Alison Carnwath, Michael Halbherr, Christoph Franz, Jeffrey Hayman, Monica Mächler, Kishore Mahbubani, Jasmin Staiblin and Barry Stowe
- as Chairman: Michel M. Liès
- as members of the Remuneration Committee: Catherine Bessant, Christoph Franz, Michel M. Liès, Kishore Mahbubani and Jasmin Staiblin
- as independent voting rights representative: lic. iur. Andreas G. Keller, attorney at law

All members of the Board were re-elected by the shareholders, as proposed by the Board, at the AGM 2020 which took place on April 1, 2020.

After the AGM 2020, the Board Committees are as follows:

- **Governance, Nominations & Sustainability Committee:** Michel M. Liès (Chair), Dame Alison Carnwath, Christoph Franz, Jeffrey Hayman, Monica Mächler
- **Remuneration Committee:** Christoph Franz (Chair), Catherine Bessant, Michel M. Liès, Kishore Mahbubani, Jasmin Staiblin
- **Audit Committee:** Dame Alison Carnwath (Chair), Catherine Bessant, Jeffrey Hayman, Monica Mächler, Barry Stowe
- **Risk and Investment Committee:** Jeffrey Hayman (Chair), Joan Amble, Dame Alison Carnwath, Michael Halbherr, Kishore Mahbubani

C. Corporate governance and risk management *continued*

C.1.3 Executive Management

To the extent not reserved to the Board, management is delegated to the Group Chief Executive Officer (Group CEO). The Group CEO has overall responsibility and accountability for the Group's management and the performance. The Executive Committee (ExCo) serves the Group CEO as the core management team in matters of Group-wide strategic, financial and business-policy relevance, including consolidated performance, capital allocation and mergers and acquisitions.

The ExCo is chaired by the Group CEO. As of December 31, 2019, to reflect both lines of business and geography, members of the ExCo included the CEO EMEA (Europe, Middle East & Africa) and Bank Distribution, the CEO North America, the CEO Latin America, the CEO Asia Pacific, the CEO of Farmers Group Inc. and the CEO Commercial Insurance. The Group Chief Financial Officer (Group CFO), the Group Chief Investment Officer (Group CIO), the Group Chief Operating Officer (Group COO) and the Group Chief Risk Officer (Group CRO) were also members of the ExCo as of December 31, 2019.

Executive Committee

Member	Position held
Mario Greco	Group Chief Executive Officer
Urban Angehrn	Group Chief Investment Officer
Jeff Dailey	CEO of Farmers Group, Inc.
Claudia Dill	CEO Latin America
Peter Giger	Group Chief Risk Officer
Jack Howell	CEO Asia Pacific
Alison Martin	CEO EMEA and Bank Distribution
George Quinn	Group Chief Financial Officer
Kathleen Savio	CEO North America
James Shea	CEO Commercial Insurance
Kristof Terryn	Group Chief Operating Officer

Changes to the Executive Committee (ExCo)

Amanda Blanc, former CEO EMEA and Bank Distribution, decided to step down from her role as of July 2, 2019, and Alison Martin took over the role as CEO EMEA and Bank Distribution effective July 9, 2019, while continuing as Group CRO until September 30, 2019. On October 1, 2019, Peter Giger took up the role of Group CRO and became a member of the ExCo.

The following cross-functional committees have been established for key areas to facilitate the coordination and alignment of recommendations to the Group CEO for approval on specific subjects.

Group Management
as of December 31, 2019

Board of Zurich Insurance Group Ltd

Group CEO

Executive Committee

Management Committees

Group Balance Sheet Committee (GBSC) Chair: Group Chief Financial Officer	**Group Risk Committee (GRC)** Chair: Group Chief Risk Officer

Technical Committees

Asset/Liability Management Investment Committee Chair: Group Chief Investment Officer	**Group Pensions Committee** Chair: Gary Shaughnessy	**Disclosure Committee** Chair: Head of Group FAR

For additional information on Corporate Governance, see the Annual Report 2019.

C. Corporate governance and risk management *continued*

C.2 Risk management

C.2.1 Objectives of risk management

Taking and managing risk is an integral part of the insurance business. Zurich manages and takes risks in an informed and disciplined manner and within a pre-determined risk appetite and tolerance.

The major risk management objectives at Zurich Insurance Group (Zurich, or the Group) are to:

- Support achievement of the Group strategy and protect capital, liquidity, earnings and reputation by monitoring that risks are taken within the Group's risk tolerance
- Enhance value creation by embedding disciplined risk-taking in the company culture and contribute to an optimal risk-return profile where risk reward trade-offs are transparent, understood, and risks are appropriately rewarded
- Efficiently and effectively diversify risk and mitigate unrewarded risks
- Encourage openness and transparency to enable effective risk management
- Support decision-making processes by providing consistent, reliable and timely risk information
- Protect Zurich's reputation and brand by promoting a sound culture of risk awareness, and disciplined and informed risk taking.

C.2.2 Risk management framework

The risk management framework is based on a governance process that sets forth clear responsibilities for taking, managing, monitoring and reporting risks.

The Zurich Risk Policy is the Group's main risk governance document. It sets standards for effective risk management throughout the Group. The policy describes the Group's risk management framework, provides a standardized set of risk types, and defines the Group's appetite for risks at Group level. Risk-specific policy manuals provide guidelines and procedures to implement the principles in the Zurich Risk Policy. Ongoing assessments verify that requirements are met.

The Group regularly reports on its risk profile at local and Group levels. The Group has procedures to refer risk topics to senior management and the Board of Directors in a timely way. To foster transparency about risk, the Board receives quarterly risk reports and risk updates. In 2019, reporting was supplemented with in-depth risk insights into topics such as information security management, accumulation risk, long-tail Life risk, credit risk and country risk.

The Group's risk appetite and tolerance reflects Zurich's willingness and capacity to take risks in pursuit of value, and sets boundaries within which the businesses act. By monitoring that risks are taken within agreed risk appetite levels and tolerance limits, Zurich protects its capital, liquidity, earnings and reputation. The Group regularly assesses and, as far as possible, quantifies material risks to which it is exposed.

Zurich's goal is to maintain capital consistent with a 'AA' financial strength rating for the Group. The Group translates that goal into a quantified risk tolerance. The primary metric used to steer business is the Zurich Economic Capital Model (Z-ECM) which provides a key input into the Group's planning process as an assessment of the Group's risk profile against the Group's risk tolerance. The Z-ECM forms the basis for optimizing the Group's risk-return profile by providing consistent risk measurement across the Group.

Group's Z-ECM overall risk appetite and tolerance

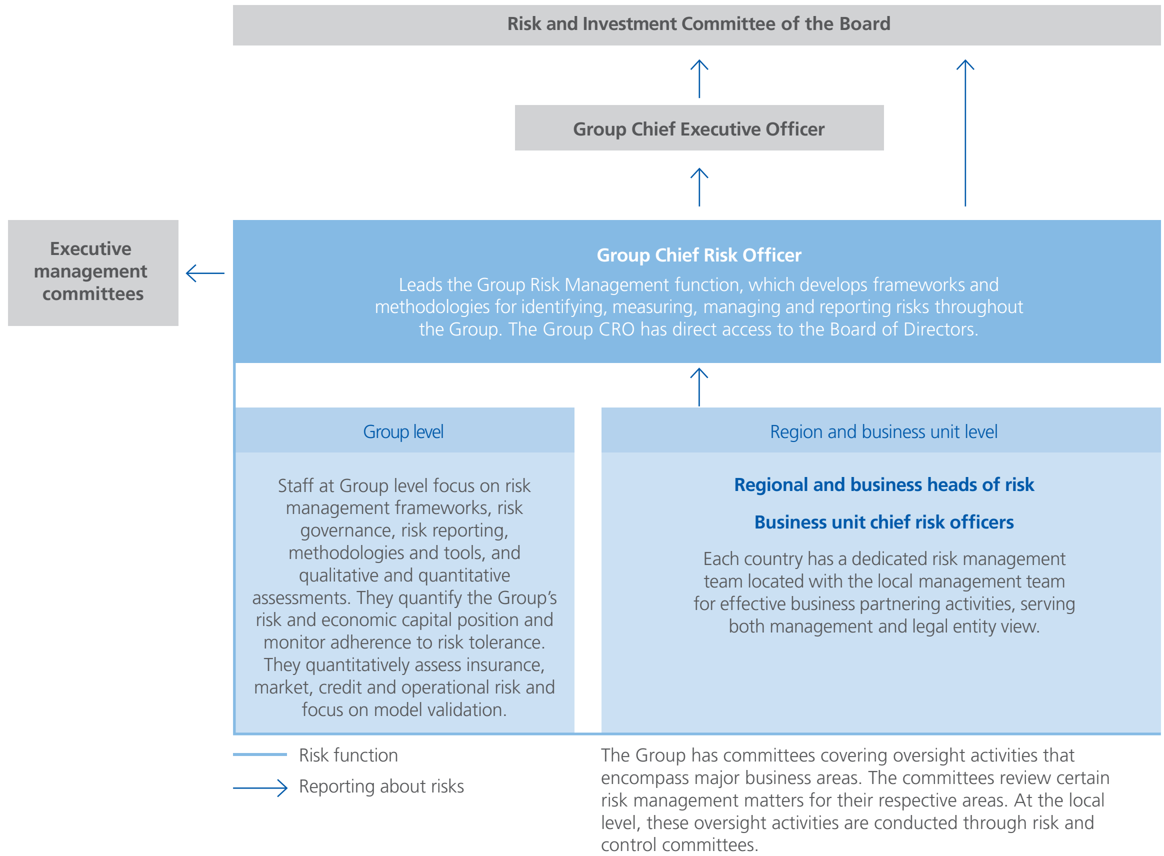
<90%	90–100%	100–120%	120–140%	>140%
Z-ECM ratio below Group risk tolerance level, requiring appropriate remedial actions	Position may be tolerated for a certain length of time depending on the risk environment	'AA' target range No action required as within stated objective and equivalent to 'AA' rating	Consider increased risk-taking or remedial actions	Z-ECM ratio indicating over-capitalization, requiring implementation of mitigating actions

Z-ECM ratio

Risk-based remuneration
Based on the Group's remuneration rules, the Board of Directors designs and structures remuneration arrangements that support the achievement of strategic and financial objectives and do not encourage inappropriate risk-taking. Group Risk Management's role in respect to remuneration and its interaction with Board committees is described in the remuneration report.

C.2.3 Risk management organization

The Group Risk Management function is a global function, led by the Group CRO.



The risk function is independent of the business by being a vertically integrated function where global risk employees report directly into the Group CRO, except for Farmers' Chief Risk Officer, who has a matrix reporting line to the Group CRO, or unless otherwise required by local laws or regulations. Risk officers are embedded in the business, positioning them to support and advise, and independently challenge, business decisions from a risk perspective. As business advisers on risk matters, the risk officers, equipped with technical risk skills as well as business skills, help foster a risk-aware culture in the business.

C.2.4 Risk assessment and reporting

The Group identifies, assesses, manages, monitors and reports risks that have an impact on the achievement of its strategic objectives by applying its proprietary Total Risk Profiling™ (TRP) methodology. The methodology allows Zurich to assess risks in terms of severity and probability and supports the definition and implementation of mitigating actions. At Group level, this is an annual process, followed by regular reviews and updates by management.

C. Corporate governance and risk management *continued*

C.3 Internal control system

Risk management and internal controls

The Group considers internal control to be key for managing operational risk. The Board has overall responsibility for the Group's risk management and internal control frameworks. The objectives of the Group's internal control system are to provide reasonable assurance that Zurich's financial statements and disclosures are materially correct, support reliable operations, and to ensure legal and regulatory compliance. The internal control system is designed to mitigate rather than eliminate the risk that business objectives might not be met. Key controls are assessed for their design and operating effectiveness.

The Group promotes risk awareness and understanding of controls through communication and training. Risk management and internal control systems are designed at Group level and implemented Group-wide.

Management, as the first line of defense, is responsible for identifying, evaluating and managing risk, and designing, implementing and maintaining internal control. Key processes and controls in the organization are subject to review and challenge by management, Group Risk Management, Group Compliance and Group Audit. Control issues of Group-level significance and associated mitigation actions are reported regularly to the Audit Committee of the Board. The Risk and Investment Committee of the Board reviews the effectiveness of the Group's risk management system, including the Group's risk tolerance and enterprise-wide risk governance framework, in accordance with the charter for each committee.

The Group's Disclosure Committee, chaired by the Head of Group Financial Accounting and Reporting, assesses the content, accuracy and integrity of the disclosures and the effectiveness of the internal controls over financial reporting. The conclusions result in a recommendation to the Group Chief Financial Officer to release the financial disclosures to the Audit Committee of the Board, who may then challenge further. The Board reviews and approves the announcement of the results and the annual report before they are made public.

The internal and external auditors also regularly report conclusions, observations and recommendations that arise as a result of their independent reviews and testing of internal controls over financial reporting and operations.

C.4 Compliance

Zurich Insurance Group is committed to complying with all applicable laws, regulations, internal requirements, professional and industry standards and its stated corporate values.

Group Compliance is a second-line control function independent from the business (first line) and its operational controls. Group Compliance provides a framework to manage compliance risks; and is responsible for:

- Enabling the business to manage its compliance risks
- Being a trusted advisor
- Providing independent challenge, monitoring and assurance
- Assisting management to promote a culture of compliance and ethical behaviors.

Group Compliance is vertically integrated to support a global framework and it is led by the Group Chief Compliance Officer (GCCO).

Group Compliance performs its activities according to the global annual compliance plan and reports on progress measured against the plan, compliance assurance outcomes and insights to management, the Audit Committee of the Board of Directors of ZIG and to the regional and local equivalent bodies by way of the Quarterly Compliance Reviews process (QCR).

Each annual compliance plan (global, regional, local) is a risk-based plan and must be prepared on the basis of an independent forward-looking compliance risk assessment, taking into account key risk drivers in both the internal and external environments.

Group Compliance provides an independent compliance view on the key compliance risks to the business and performs independent risk-based monitoring and assurance activities, while challenging the business as necessary. In addition, it provides compliance risk insight through relevant and targeted reporting.

The Group Chief Compliance Officer defines and issues compliance policies relevant to the Group and establishes appropriate processes and guidance.

Group Compliance supports a strong compliance culture and ethics across the Group in a changing regulatory environment through training and awareness initiatives in line with our Code of Conduct.

The Group Chief Compliance Officer has direct access to the Group CEO and the Chairman of the ZIG Board Audit Committee and to the ZIG Chairman of the Board; the GCCO has an additional reporting line to the Chairman of the Audit Committee, while maintaining functional independence serves as a second line of defense.

Zurich encourages its employees to speak up and report improper conduct that they believe is illegal, unethical, or violates Zurich's Code of Conduct or the Group's policies. Employees are free to report their concerns to management, human resources, the Group's legal department, its compliance function, or through the Zurich Ethics Line (or similar service provided locally), a phone and web-based service run by an external specialist provider. Zurich does not tolerate retaliation against any employee who reports such concerns in good faith.

C. Corporate governance and risk management *continued*

C.5 Internal audit function

Zurich Insurance Group's internal audit function (Group Audit) is tasked with providing independent and objective assurance to the ZIG Board, ZIG Audit Committee, Group CEO and management and to the boards and audit committees of subsidiary companies, on the adequacy and effectiveness of the Group's risk management, internal control and governance processes.

This is accomplished by developing a risk-based plan, which is updated on an ongoing basis, as the risks faced by the business change. The plan is based on the full spectrum of business risks, including concerns and issues raised by the Audit Committee, management and other stakeholders. The Audit Committee approves the annual plan and any changes to it.

Group Audit executes the plan in accordance with defined operating standards, which incorporate and comply with the International Standards for the Professional Practice of Internal Auditing, issued by the Institute of Internal Auditors (IIA).

Group Audit is authorized to review all areas of the Group and has full, free and unrestricted access to all Group activities, accounts, records, property and personnel necessary to fulfill its duties. In the course of its work, Group Audit takes into consideration the work of other assurance functions. In particular, Group Audit coordinates its activities with the external auditors, sharing risk assessments, work plans, audit reports and updates on audit actions. Group Audit and the external auditors meet regularly at all levels of the organization to optimize assurance provision and efficiency.

The Audit Committee, boards and audit committees of subsidiary companies and Group CEO are regularly informed of important audit findings, including adverse opinions, mitigation actions and attention provided by management. Group Audit is responsible for ensuring that issues identified by Group Audit that could have an impact on the Group's operations are brought to the attention of the Audit Committee and appropriate levels of management. The Head of Group Audit meets regularly with the chairman of the Audit Committee and attends each meeting of the Audit Committee. In addition, the Head of Group Audit meets regularly with the chairman of the Board.

The Head of Group Audit reports functionally to the chairman of the Audit Committee and administratively to the Group CEO. Audit staff are expected to be independent and objective in all assignments and to do nothing that might prejudice or be perceived as prejudicing independence or objectivity. Group Audit has no operational responsibilities over the areas it reviews and, to ensure independence, all Group Audit staff report (via audit managers) to the Head of Group Audit. In some instances, country audit managers also have a reporting line to the local CEO to comply with regulatory requirements.

The Audit Committee assesses the independence of Group Audit and reviews its activities, plans and organization, the quality of its work and its cooperation with the external auditors. As required by the IIA International Standards, an independent qualified assessor reviews the quality of Group Audit at least every five years. This review was conducted most recently in 2016 and 2017, and the findings of the review were reported to the Audit Committee in February 2017. The results confirmed that Group Audit's practices conform with all IIA Standards.

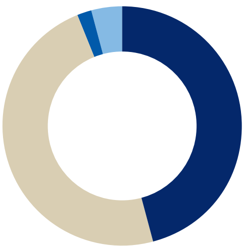
D. Risk profile

Internally, the Group uses its Zurich Economic Capital Model (Z-ECM), which also forms the basis of the Swiss Solvency Test (SST) model. Z-ECM targets a total capital level that is calibrated to an 'AA' financial strength. Zurich defines the Z-ECM capital required as being the capital required to protect the Group's policyholders in order to meet all of their claims with a confidence level of 99.95 percent over a one-year time horizon.

The Group uses Z-ECM to assess the economic capital consumption of its business on a one-balance-sheet approach. Z-ECM is an integral part of how the Group is managed. It is embedded in the Group's organization and decision-making processes, and is used in capital allocation, business performance management, pricing, and communication. Z-ECM quantifies the capital required for insurance-related risk (including premium and reserve, natural catastrophe, business and life insurance), market risk including investment credit risk, reinsurance credit risk, other credit risk, and operational risk.

The chart below shows the Z-ECM capital required, split by risk type as of January 1, 2020. As of January 1, 2020, the largest proportion of Z-ECM capital required was related to market risk, which comprised 48 percent of the total. Z-ECM capital required for insurance risk was the second-largest, comprising 46 percent.

Total Z-ECM capital required: USD 34.5 billion
%, as of January 1, 2020



Insurance risk	46%
Market risk, including investment credit risk	48%
Other credit risk	2%
Operational risk	4%

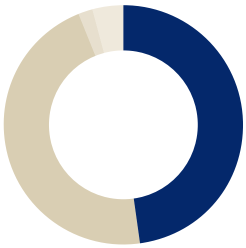
D. Risk profile *continued*

D.1 Analysis by risk type

Insurance risk

Section highlights

Total Z-ECM capital required: USD 34.5 billion
%, as of January 1, 2020



Insurance risk	**46%**
Market risk, including investment credit risk	**48%**
Other credit risk	**2%**
Operational risk	**4%**

Key risk and capital indicators
Z-ECM, in USD billions

	January 1, 2019	**January 1, 2020**
Business risk	3.9	4.7
Life liability risk	2.1	2.3
Premium & reserve risk	7.1	6.8
Natural catastrophe risk	2.1	2.2

Insurance risk is the inherent uncertainty regarding the occurrence, amount or timing of insurance cash flows. The profitability of insurance business is also susceptible to business risk in the form of unexpected changes in expenses, policyholders' behavior, and fluctuations in new business volumes. Zurich manages insurance risk through:

- Specific underwriting and claims standards and controls
- Robust reserving processes
- External reinsurance

D.1.1 Property and casualty insurance risk

Property and casualty insurance risk arises from coverage provided for motor, property, liability, special lines and worker injury. It comprises premium and reserve risk, catastrophe risk, and business risk. Premium and reserve risk covers uncertainties in the frequency of the occurrence of the insured events as well as in the severity of the resulting claims. Catastrophe risk predominantly relates to uncertainty around natural catastrophes. Business risk for property and casualty predominantly relates to unexpected increases in the expenses relating to claims handling, underwriting, and administration.

D.1.2 Management of Property & Casualty business insurance risk

The Group's underwriting strategy takes advantage of the diversification of Property & Casualty (P&C) risks across lines of business and geographic regions. Zurich's underwriting governance is applicable throughout the Group. Underwriting discipline is a fundamental part of managing insurance risk. The Group sets limits on underwriting capacity and delegates authority to individuals based on their specific expertise, and sets appropriate underwriting and pricing guidelines. Technical reviews assure that underwriters perform within authorities and adhere to underwriting philosophies and policies.

P&C insurance reserves are regularly estimated, reviewed and monitored by qualified and experienced actuaries at local, regional and Group levels. To arrive at their reserve estimates, the actuaries take into consideration, among other things, the latest available facts, trends and patterns of loss payments. Inflation is monitored with insights feeding into actuarial reserving models and Zurich's underwriting processes and pricing.

To ensure a common understanding of business insights and new trends for reserve analysis, financial plans, underwriting and pricing decisions, the Group has established a culture of continuous cross-functional collaboration. For this, underwriting, actuarial (pricing and reserving), claims, finance, sales and distribution, risk engineering and risk management contribute to quarterly meetings on local and Group level.

Zurich's emerging risk group, with cross-functional expertise from core insurance functions such as underwriting, claims and risk management, identifies, assesses and recommends actions for emerging risks.

Actions continue to rebalance the portfolio, reducing exposure to long tail lines. Governance is in place to ensure appropriate top-line targets and profitability. Reinsurance is deployed to help manage insurance risk. Group Risk Management also provides independent assurance through risk reviews.

The Group is exposed to losses that could arise from natural and man-made catastrophes. The main concentrations of risks arising from such potential catastrophes are regularly reported to executive management. The most important peril regions and natural catastrophes (Nat Cat) continue to be U.S. and Caribbean windstorm, California earthquake and Europe windstorm.

Natural catastrophes
The Group uses third-party models (adjusted to Zurich's view) to manage its underwriting, ensure accumulations stay within intended exposure limits and assess the capital requirement due to natural catastrophes. The same view Zurich has on natural catastrophe risk also underpins profitability assessment and strategic capacity allocation and guides the type and quantity of reinsurance Zurich buys.

To ensure global consistency, Nat Cat exposures are modeled in a Group function. Potential losses from property policies with material exposure in hazard-prone geographical areas and from worker injury policies with material exposure in U.S. seismic zones are probabilistically modeled. Losses for other lines of business are estimated based on adjustments to these modeled results. Risk modeling mainly addresses climate-induced perils such as windstorm, flood, tornado, and hail, and geologically-induced perils such as earthquake.

Zurich constantly reviews and expands the scope and sophistication of its modeling and strives to improve data quality. Catastrophe research and development is strengthened to increase the focus on the risks from a changing climate. It supplements internal know-how with external knowledge (e.g., the Advisory Council for Catastrophes). Zurich is a shareholder of catastrophe exposure and loss data aggregation and estimation firm PERILS AG, Switzerland and is a member of the open-source initiative Oasis Loss Modeling Framework.

Man-made catastrophes
Man-made catastrophes include events such as industrial accidents, terrorism and cyber attacks.

For terrorism, worker injury and property risk exposures are analyzed to identify areas with significant risk concentration. Other lines of business are assessed, although the potential exposure is not as significant. A vendor-provided catastrophe model is used to evaluate potential exposures in every major U.S. city and selected cities in Europe. The Group's analysis for the P&C business has shown that its exposures outside of North America are lower, in a large part due to government-provided pools. Outside the modeled areas, exposure concentrations are identified in Zurich's Risk Exposure Data Store (REDS). Exposure concentrations for location-based man-made scenarios, other than terrorism, are also identified in REDS, for example, industrial explosions at global ports.

The Group uses third-party models to manage its underwriting and accumulations for cyber and casualty catastrophe. The Group actively monitors and manages its cyber exposure and continue to refine products to ensure their appropriateness. Improving modeling capabilities and data capture for cyber and casualty catastrophe risks are key focus areas.

D.1.3 Concentration of Property & Casualty business insurance risk
The Group defines concentration risk in the Property & Casualty (P&C) business as the risk of exposure to increased losses associated with inadequately diversified portfolios. Concentration risk for a property and casualty insurer may arise due to a concentration of business written within a geographical area or of underlying risks covered.

The following two tables show the Group's concentration of risk within the P&C business by region and line of business based on direct written premiums before reinsurance. P&C premiums ceded to reinsurers (including retrocessions) amounted to USD 7.8 billion and USD 7.0 billion for the years ended December 31, 2019 and 2018, respectively. Reinsurance programs are managed on a global basis, and therefore, the net premium after reinsurance is monitored on an aggregated basis.

D. Risk profile *continued*

Property & Casualty business – Direct written premiums and policy fees by line of business – current period

in USD millions, for the year ended December 31, 2019	Motor	Property	Liability	Special lines	Worker injury	Total
Europe, Middle East & Africa	4,050	4,328	2,005	2,009	329	12,722
North America	1,499	5,126	2,719	2,361	2,684	14,389
Other regions	1,673	1,573	386	1,865	144	5,641
Total	**7,222**	**11,027**	**5,110**	**6,236**	**3,158**	**32,752**

Property & Casualty business – Direct written premiums and policy fees by line of business – prior period

in USD millions, for the year ended December 31, 2018	Motor	Property	Liability	Special lines	Worker injury	Total
Europe, Middle East & Africa	4,546	4,118	1,962	1,986	343	12,955
North America	1,422	4,622	2,638	2,494	2,735	13,912
Other regions	1,595	1,402	356	1,769	150	5,272
Total	**7,563**	**10,142**	**4,957**	**6,249**	**3,228**	**32,139**

Analysis of sensitivities for Property & Casualty business risks

The next two tables show the sensitivity of net income before tax and the sensitivity of net assets, using the Group effective income tax rate, as a result of adverse development in the net loss ratio by one percentage point. The sensitivities do not indicate a probability of such an event and do not consider any non-linear effects of reinsurance. Based on the assumptions applied in the sensitivity analysis in the following tables, each additional percentage point increase in the loss ratio would have a linear impact on net income before tax and net assets. The Group also monitors insurance risk by evaluating extreme scenarios, taking into account the non-linear effects of reinsurance contracts.

Insurance risk sensitivity for the Property & Casualty business – current period

in USD millions, for the year ended December 31, 2019	Europe, Middle East & Africa	North America	Asia Pacific	Latin America	Reinsurance	Total
+1% in net loss ratio						
Net income before tax	(115)	(96)	(24)	(22)	–	(256)
Net assets	(88)	(73)	(19)	(16)	–	(196)

Insurance risk sensitivity for the Property & Casualty business – prior period

in USD millions, for the year ended December 31, 2018	Europe, Middle East & Africa	North America	Asia Pacific	Latin America	Reinsurance	Total
+1% in net loss ratio						
Net income before tax	(121)	(100)	(23)	(21)	1	(264)
Net assets	(91)	(75)	(17)	(16)	–	(199)

D.1.4 Life insurance risk

The risks associated with life insurance include:

Life liability risk

- Mortality risk – when on average, the death incidence among the policyholders is higher than expected
- Longevity risk – when on average, annuitants live longer than expected
- Morbidity risk – when on average, the incidence of sickness or disability among the policyholders is higher or recovery rates from disability are lower than expected

Life business risk

- Policyholder behavior risk – on average, the policyholders discontinue or reduce contributions or withdraw benefits prior to the maturity of contracts at a rate that is different from expected
- Expense risk – expenses incurred in acquiring and administering policies are higher than expected
- New business risk – volumes of new business are insufficient to cover fixed acquisition expenses

Market risk

- Market risk – the risk associated with the Group's balance sheet positions where the value or cash flow depends on financial markets, which is analyzed in the 'market risk, including investment credit risk' section

Credit risk

- Credit risk – the risk associated with a loss or potential loss from counterparties failing to fulfill their financial obligations, which is analyzed in the 'market risk, including investment credit risk' and 'other credit risk' sections

A more diversified portfolio of risks is less likely than an undiversified portfolio to be affected across the board by a change in any subset of the risks. Diversification across regions and businesses (between unit-linked and other business including protection and life annuity products, as shown in the next table below) contributes to reducing the impacts of the risks associated with the Life business listed above.

D.1.5 Management of Life business insurance risk

The Group has local product development committees and a Group-level committee to analyze potential new life products that could significantly increase or change the nature of its risks. The Group regularly reviews the continued suitability and the potential risks of existing life products to ensure sustainability of the business.

Unit-linked products are designed to reduce much of the market and credit risk associated with the Group's traditional business. Risks that are inherent in these products are largely passed on to the policyholder, although a portion of the Group's management fees is linked to the value of funds under management, and hence is at risk if fund values decrease. To the extent that there are guarantees built into the product design, unit-linked products carry mortality/morbidity risk and market risk. Contracts may have minimum guaranteed death benefits where the sum at risk depends on the fair value of the underlying investments. For certain contracts, these risks are mitigated by mortality and morbidity charges.

Other life insurance liabilities include traditional life insurance products, such as protection and life annuity products. Protection products carry mortality, longevity and morbidity risk, as well as market and credit risk. Changes in medical treatments and lifestyle changes are among the most significant factors that could result in earlier or more claims than expected. Disability, defined in terms of the ability to perform an occupation, could be affected by adverse economic conditions. To reduce pricing cross-subsidies, where permitted, premiums are adjusted for factors such as age, gender and smoker status. Policy terms and conditions and disclosure requirements in insurance applications are designed to mitigate the risk arising from non-standard and unpredictable risks that could result in severe financial loss. In the life annuity business, medical advances and improved social conditions that lead to increased longevity are the most significant insurance risk. Annuitant (beneficiary) mortality assumptions include allowance for future mortality improvements.

The Group is also exposed to risks posed by policyholder behavior and fluctuating expenses. Policyholder behavior risk is mitigated by designing products that, as closely as possible, match revenue and expenses associated with the contract. Expense risk is reduced by carefully controlling expenses, and through regular expense analysis and allocation exercises to ensure responsible and sustainable business practices.

D. Risk profile *continued*

The Group is also exposed to investment and surrender risks related to bank-owned life insurance contracts sold in the U.S. These risks have reduced significantly in recent years as several have switched into less risky investment divisions. See heading 'other contracts' in note 7 of the consolidated financial statements for additional information.

Lower interest rates have led to an increase in both Life business risks and Life liability risks (especially Longevity risk).

Furthermore, interest rate guarantees (with concentration in traditional, guaranteed business in Germany and Switzerland and variable annuity business in the U.S. containing minimum guaranteed death benefits) expose Zurich to financial losses that may arise as a result of adverse movements in interest rates. These guarantees are managed through a combination of asset-liability management and hedging.

The Group has a dynamic hedging strategy to reduce the investment risk associated with the closed book of variable annuities written by its U.S. subsidiary Zurich American Life Insurance Company. This exposure has fallen substantially as a result of several policy buy-back programs since 2015.

D.1.6 Concentration of Life business insurance risk

The Group defines concentration risk in the life business as the risk of exposure to increased losses associated with inadequately diversified portfolios of assets or obligations. Concentration risk for a life insurer may arise with respect to investments in a geographical area, economic sector, or individual issuers, or due to a concentration of business written within a geographical area, of a policy type, or of underlying risks covered.

Observing best-estimate assumptions on cash flows related to benefits of insurance contracts gives some indication of the size of the exposure to risks and the extent of risk concentration. The table below shows the Group's concentration of risk within Life by region and line of business based on reserves for life insurance on a net of reinsurance basis. The life insurance reserves also include policyholder surplus reserves with a loss absorbing capacity[1], predominantly in Germany for an amount of USD 9.4 billion in 2019 (2018: USD 7.4 billion) and in the UK for an amount of USD 0.5 billion in 2019 (2018: USD 0.5 billion). The Group's exposure to life insurance risks varies significantly by geographic region and line of business and may change over time. See note 8 of the consolidated financial statements in the Annual Report 2019 for additional information on reserves for insurance contracts.

[1] Policyholder surplus reserves with loss-absorbing capacity refer to funds allocated to the policyholders that can be used by the shareholders, which, under certain conditions, may require regulatory approval.

Reserves, net of reinsurance, by region

in USD millions, as of December 31	Unit-linked insurance contracts		Other life insurance liabilities		Total reserves	
	2018	**2019**	2018	**2019**	2018	**2019**
Life						
Europe, Middle East & Africa	41,229	46,919	77,756	81,372	118,985	128,291
of which:						
United Kingdom	15,323	16,371	3,271	3,786	18,594	20,157
Germany	15,976	19,001	36,980	38,511	52,956	57,512
Switzerland	634	776	17,294	17,456	17,928	18,232
Italy	1,568	2,709	4,521	5,348	6,089	8,057
Ireland	2,347	1,885	2,021	2,235	4,368	4,121
Spain	699	655	11,415	11,773	12,114	12,428
Zurich International	4,339	5,129	309	220	4,648	5,349
Rest of Europe, Middle East & Africa	342	392	1,946	2,043	2,288	2,435
North America	9,241	10,253	893	1,035	10,135	11,288
Asia Pacific	539	598	2,791	4,311	3,330	4,908
Latin America	13,159	15,093	5,385	5,826	18,544	20,919
Group Reinsurance	–	–	2	5	2	5
Eliminations	–	–	(13)	(12)	(13)	(12)
Subtotal	64,168	72,863	86,814	92,537	150,982	165,399
Other businesses	**4,598**	**4,821**	**9,474**	**9,940**	**14,072**	**14,761**
Total	**68,766**	**77,684**	**96,288**	**102,477**	**165,054**	**180,160**

Analysis of sensitivities for Life business insurance risk

The Group uses market-consistent embedded value reporting principles, which allow Zurich to increase its understanding of, and report on, the risk profile of its life products, and how these risks would change under different market conditions. Embedded value is a measure that markets use to value life businesses. For more information, see the 'Embedded Value Report 2019' (unaudited but subject to assurance review) at www.zurich.com/investor-relations/results-and-reports.

D.1.7 Reinsurance for Property & Casualty and Life businesses

The Group's objective in purchasing reinsurance is to provide market-leading capacity for customers while protecting the balance sheet, supporting earnings volatility management, and achieving capital efficiency. The Group follows a centralized reinsurance purchasing strategy for both Property & Casualty (P&C) and Life, and bundles programs, where appropriate, to benefit from diversification and economies of scale. In support of the Group's empowerment-based management model and to align risk-bearing capacities between the Group and individual country operations, the internal reinsurance vehicle applies to all externally reinsured lines of business. In addition, to actively manage and reduce potential claims-recovery risks on facultative cessions and to support the strategy on operational excellence, the Group started to tailor specific facultative property and casualty reinsurance facilities.

The Group structures and aligns its external reinsurance protection to its capital position to achieve an optimum risk-return ratio. This includes participation in the underlying risks through self-retentions. The Group manages its central reinsurance purchasing according to these principles. The cession rate for P&C was 23.0 percent as of December 31, 2019 and 21.0 percent as of December 31, 2018. The cession rate for Life was 8.0 percent as of December 31, 2019 and 7.0 percent as of December 31, 2018.

The Group uses traditional and collateralized reinsurance markets to protect itself against extreme single events, multiple event occurrences across regions, or increased frequency of events. Specifically, to protect the Group against man-made and natural catastrophe scenarios, per event Zurich arranges an annual aggregate global cover as illustrated on the graph on the next page.

The Group participates in the underlying risks through its retention and through its co-participation in excess layers. The natural catastrophe reinsurance covers are on a loss-occurrence basis except the global aggregate catastrophe cover, which operates on an annual aggregate basis. The in-force natural catastrophe covers renew annually, with the exception of the global catastrophe cover, which renewed on January 1, 2019, for a three-year term.

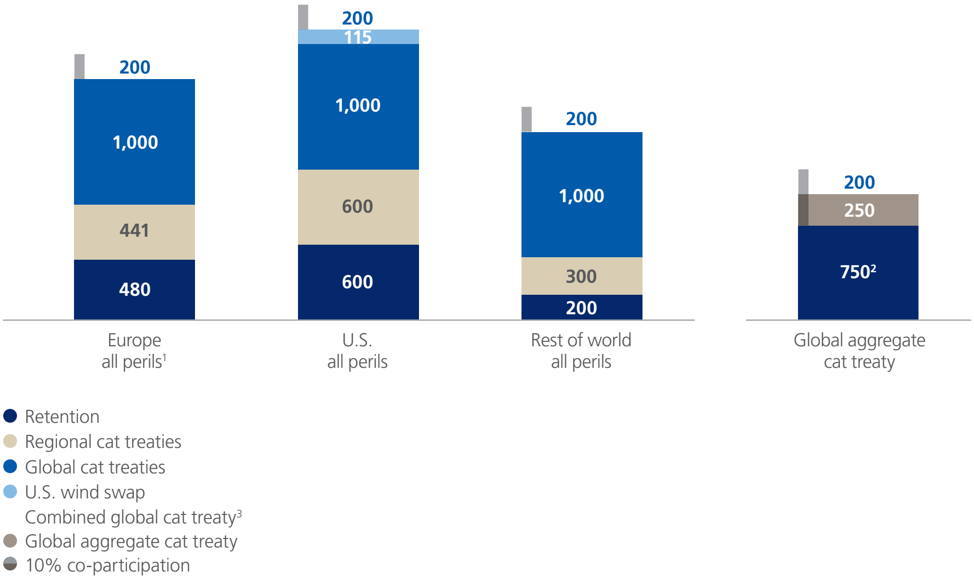
In addition to these covers, the Group purchases several regional catastrophe covers, entertains a bilateral risk swap, and various line of business-specific risk treaties. These covers are reviewed continuously and are subject to change going forward.

Changes in 2019 include the expansion of the Group's global catastrophe treaty limit to USD 1 billion (up from USD 750 million) and the transition from several regional surety treaties to one single global surety treaty to enhance coverage and generate efficiency.

To complement existing treaties, the Group purchases catastrophe reinsurance specific to life insurance for its exposure to natural and man-made catastrophes.

D. Risk profile *continued*

2019 Group catastrophe reinsurance protection
in USD millions, as of December 31, 2019

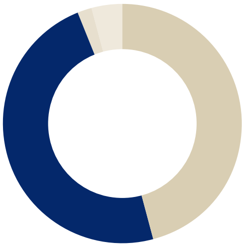


[1] Europe cat treaty calculated with EUR/USD exchange rate as of July 31, 2019.
[2] Franchise deductible of USD 25 million, i.e. losses greater than USD 25 million count toward the erosion of the retention (annual aggregate deductible).
[3] This USD 200 million cover can be used only once, either for aggregated losses or for an individual occurrence or event. The attachment point for a U.S. Hurricane event is USD 2,315 million; for any other event USD 2,200 million.

D.2 Market risk, including investment credit risk

Section highlights

Total Z-ECM capital required: USD 34.5 billion
%, as of January 1, 2020



Insurance risk	**46%**
Market risk, including investment credit risk	**48%**
Other credit risk	**2%**
Operational risk	**4%**

Key risk and capital indicators
Z-ECM, in USD billions

	January 1, 2019	**January 1, 2020**
Market risk, including investment credit risk	13.9	16.5

Market risk is the risk associated with the Group's balance sheet positions where the value or cash flow depends on financial markets. Risk factors include:

- Equity market prices
- Real estate market prices
- Interest-rate risk
- Credit and swap spread changes
- Defaults of issuers
- Currency exchange rates

The Group manages the market risk of assets relative to liabilities on an economic total balance sheet basis. This is done to achieve the maximum risk-adjusted excess return on assets relative to the liability benchmark, while taking into account the Group's risk appetite and tolerance and local regulatory constraints.

The Group has policies and limits to manage market risk and keep its strategic asset allocation in line with its risk capacity. Zurich centrally manages certain asset classes to control aggregation of risk and provides a consistent approach to constructing portfolios and selecting external asset managers. It diversifies portfolios, investments and asset managers, and regularly measures and manages market risk exposure. The Group has set limits on concentration in investments in single issuers and certain asset classes, as well as by how much asset interest rate sensitivities can deviate from liability interest-rate sensitivities. The Group regularly reviews its capacity to hold illiquid investments.

The Asset/Liability Management Investment Committee reviews and monitors Group strategic asset allocation and tactical boundaries, and monitors Group asset/liability exposure. The Group oversees the activities of local asset/liability management investment committees and regularly assesses market risks at both Group and local business levels. The economic effect of potential extreme market moves is regularly examined and considered when setting the asset allocation.

Risk assessment reviews include the analysis of the management of interest-rate risk for each major maturity bucket and adherence to the aggregate positions with risk limits. The Group applies processes to manage market risks and to analyze market risk hotspots. Actions to mitigate risk are taken if necessary to manage fluctuations affecting asset/liability mismatch and risk-based capital.

D. Risk profile *continued*

The Group may use derivative financial instruments to mitigate market risks arising from changes in currency exchange rates, interest rates and equity prices, from credit quality of assets, and from commitments to third parties. The Group enters into derivative financial instruments mostly for economic hedging purposes and, in limited circumstances, the instruments may also meet the definition of an effective hedge for accounting purposes.

In compliance with Swiss insurance regulation, the Group's policy prohibits speculative trading in derivatives, meaning a pattern of so called in and out activity without reference to an underlying position. The Group addresses the risks arising from derivatives through a stringent policy that requires approval of a derivative program before transactions are initiated, and by subsequent regular monitoring by Group Risk Management of open positions and annual reviews of derivative programs.

For more information on the Group's investment result, including impairments and the treatment of selected financial instruments, see note 6 of the consolidated financial statements. For more information on derivative financial instruments and hedge accounting, see note 7 of the consolidated financial statements in the Annual Report 2019.

D.2.1 Risk from equity securities and real estate

The Group is exposed to risks from price fluctuations on equity securities and real estate. These could affect the Group's liquidity, reported income, economic surplus and regulatory capital position. Equity risk exposure includes common stocks, including equity unit trusts, private equity, common stock portfolios backing participating-with- profit policyholder contracts, and equities held for employee benefit plans. Exposure to real estate risk includes direct holdings in property and property company shares and funds. Returns on unit-linked contracts, whether classified as insurance or investment contracts, may be exposed to risks from equity and real estate, but these risks are borne by policyholders. However, the Group is indirectly exposed to market movements from unit-linked contracts with respect to both earnings and economic capital. Market movements affect the amount of fee income earned when the fee income level is dependent on the valuation of the asset base. Therefore, the value of in-force business for unit-linked business can be negatively affected by adverse movements in equity and real estate markets.

The Group manages its risks related to equity securities and real estate as part of the overall investment risk management process, and applies limits as expressed in policies and guidelines. Specifically, Zurich limits holdings in equities, real estate and alternative investments. To realize an optimal level of risk diversification, the strategy for equities is defined through a composite of market benchmark indices. The Group has the capability and processes in place to change the exposure to key equity markets through the use of derivatives or purchase or sale of securities within a short timeframe.

For additional information on equity securities and investment property, see note 6 of the consolidated financial statements.

D.2.2 Risk from interest rates and credit spreads

Interest-rate risk is the risk of an adverse economic impact resulting from changes in interest rates, including changes in the shape of yield curves when valuing interest rate sensitive investments and derivatives relative to fair value of insurance liabilities. It includes also other interest-rate sensitive balance sheet items such as liabilities investment contracts, debt issued by the Group, commercial and residential mortgages, employee benefit plans, and loans and receivables.

The Group manages credit-spread risk, which describes the sensitivity of the values of assets and liabilities due to changes in the level or the volatility of credit spreads, over the risk-free interest rate yield curves. Movements of credit spreads are driven by several factors including changes in expected default probability, default losses, risk premium, liquidity and other effects.

Returns on unit-linked contracts, whether classified as insurance or investment contracts, are at the risk of the policyholder; however, the Group is exposed to fluctuations in interest rates and credit spreads in so far as they affect the amount of fee income earned if the fee income level is dependent on the valuation of the asset base.

D.2.3 Analysis of market risk sensitivities for interest rate, equity and credit-spread risks

Group investments sensitivities

The economic market risk sensitivities of the fair value for Group investments before tax as of 2019 was a negative USD 10.9 billion (negative USD 9.9 billion as of 2018) for a 100-basis-point increase in interest rate. For a 100-basis-point decrease in interest rate, the sensitivity was USD 12.7 billion in 2019 (USD 11.1 billion as of 2018). For a 10 percent decline in equity market, Group investments dropped in value by USD 1.3 billion in 2019 compared with USD 1.1 billion as of 2018. A 100-basis-point increase in credit spreads resulted in a decrease of USD 5.7 billion in 2019 compared with USD 5.2 billion as of 2018.

The following describes limitations of the Group investment sensitivities. Group sensitivities show the effects of a change of certain risk factors, while other assumptions remain unchanged. The interest rate scenarios assume a parallel shift of all interest rates in the respective currencies. They do not take into account the possibility that interest rate changes might differ by rating class; these are disclosed separately as credit spread risk sensitivities. The sensitivity analysis is based on economic assets, and not on shareholders' equity or net income as set out in the consolidated financial statements. The sensitivities only cover Group investments, not insurance or other liabilities. The equity market scenarios assume a concurrent movement of all stock markets. The sensitivity analysis does not take into account actions that might be taken to mitigate losses. Actions may involve changing the asset allocation, for example through selling and buying assets. The sensitivities do not indicate a probability of such events occurring in the future. They do not necessarily represent the Group's view of expected future market changes.

In addition to the sensitivities, management uses stress scenarios to assess the impact of more severe market movements on the Group's financial condition. For more information on stress scenarios, see Group economic net asset sensitivities (unaudited), below.

D.2.4 Group economic net asset sensitivities

Basis of presentation – Property & Casualty, Life, and rest of the business

The basis of the presentation for the next three tables is an economic valuation represented by the fair value for Group investments. IFRS insurance liabilities are discounted at risk-free market rates to reflect the present value of insurance liability cash flows and other liabilities, for example, own debt. The Group describes risk-free market rates as swap rates. In the sensitivities, own debt does not include subordinated debt, which Zurich considers available to protect policyholders in a worst-case scenario.

The basis of presentation for the Life business to financial market movements uses replicating portfolios. The replicating portfolios are portfolios of assets that replicate the cash flows or present values of the life insurance liabilities under stochastic scenarios from the embedded value models. They are calibrated to match dependencies of life insurance liabilities on developments in the financial markets, in respect of interest rates, equity and property. The options and guarantees of the underlying life insurance liabilities are captured through the inclusion of options in the replicating portfolios.

The net impact – the difference between the impact on Group investments and liabilities – represents the economic risk related to changes in market risk factors that the Group faces. The three tables below show the estimated economic market risk sensitivities of the net impact. Positive values represent an increase in the balance, and values in parentheses represent a decrease. Mismatches in changes in value of assets relative to liabilities represent an economic risk to the Group.

In determining the sensitivities, investments and liabilities are fully re-valued in the given scenarios. Each instrument is re-valued separately, taking the relevant product features into account. Non-linear effects, where they exist, are reflected in the model. The sensitivities are shown before tax. They do not include the impact of transactions within the Group.

Sensitivities for the rest of the business include Farmers, Group Finance and Operations, and Non-Core Businesses.

D. Risk profile *continued*

Analysis of economic sensitivities for interest-rate risk

The table below shows the estimated net impact before tax of a 100 basis point increase or decrease in yield curves after consideration of hedges in place, as of December 31, 2019 and 2018.

Economic interest rate sensitivities*

In USD millions, as of December 31	2018	2019
100 basis point increase in the interest rate yield curves		
Property & Casualty	(180)	(61)
Life	655	1,045
Rest of the business	(192)	(155)
100 basis point decrease in the interest rate yield curves		
Property & Casualty	(8)	(165)
Life	(2,103)	(3,107)
Rest of the business	151	230

Analysis of economic sensitivities for equity risk

The next table shows the estimated net impact before tax from a 10 percent decline in stock markets, after consideration of hedges in place, as of December 31, 2019 and 2018.

Economic equity price sensitivities*

in USD millions, as of December 31	2018	2019
10% decline in stock markets		
Property & Casualty	(593)	(598)
Life	(395)	(518)
Rest of the business	(83)	(80)

Analysis of economic sensitivities for credit spread risk

The following table shows the estimated net impact before tax from a 100 basis points increase in corporate credit spreads, as of December 31, 2019 and 2018. The sensitivities apply to all fixed income instruments, excluding government, supranational and similar debt securities. For Life business the loss-absorbing capacity of liabilities for losses on credit spreads are not included, as they are not modeled in the replicating portfolios.

Economic credit spread sensitivities*

in USD millions, as of December 31	2018	2019
100 basis point increase in credit spreads		
Property & Casualty	(1,614)	(1,629)
Life	(3,048)	(3,640)
Rest of the business	(338)	(522)

* Limitations of the economic sensitivities: same limitations apply as for Group investments sensitivities, except that the above sensitivities are based on economic net assets including liability representation: see Note 1 of the consolidated financial statements.

D.2.5 Risks from defaults of counterparties

Debt securities

The Group is exposed to credit risk from third-party counterparties where the Group holds securities issued by those entities. The default risk is controlled by Group counterparty-concentration risk limits keeping the size of potential losses to an acceptable level.

Debt securities by rating of issuer

as of December 31	2018		2019	
	USD millions	% of total	**USD millions**	**% of total**
Rating				
AAA	35,283	25.2%	36,066	24.5%
AA	37,362	26.7%	37,062	25.1%
A	20,998	15.0%	22,812	15.5%
BBB	39,529	28.3%	44,918	30.5%
BB and below	5,341	3.8%	5,342	3.6%
Unrated	1,357	1.0%	1,308	0.9%
Total	**139,870**	**100.0%**	**147,507**	**100.0%**

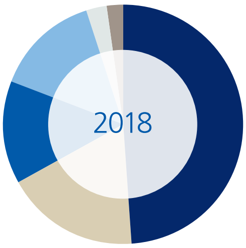
The table above shows the credit-risk exposure of debt securities, by credit rating. As of December 31, 2019, 95.5 percent of the Group's debt securities was investment grade and 24.5 percent was rated 'AAA.' As of December 31, 2018, 95.2 percent of debt securities was investment grade and 25.2 percent was rated 'AAA.'

Exposure-level limits are in place and are based on default and recovery rates that tighten progressively for lower ratings. Where the Group identifies investments expected to trigger limit breaches, appropriate actions are implemented.

The risk-weighted average credit rating of the Group's debt securities portfolio is 'A–' in 2019, compared with 'A–' in 2018.

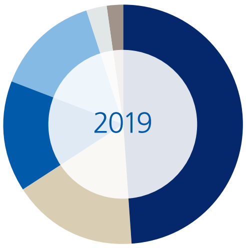
Debt securities – credit risk concentration by industry

%, as of December 31



	2018
Government-related	49%
Securitized	18%
Industrial	14%
Financial institutions	14%
Utility	3%
Others	2%

USD 140bn



	2019
Government-related	49%
Securitized	17%
Industrial	15%
Financial institutions	14%
Utility	3%
Others	2%

USD 148bn

As of December 31, 2019, the largest concentration in the Group's debt securities portfolio was government-related at 49 percent of all debt securities. In all other categories, a total of USD 30.2 billion (41 percent) was secured. As of December 31, 2018, 49 percent of the Group's debt portfolio was invested in government-related securities. In all other categories, a total of USD 31.4 billion (44 percent) was secured.

The second-largest concentration in the Group's debt securities portfolio is securitized, including structured finance securities and covered bonds.

In addition to debt exposure, the Group had loan exposure of USD 4.1 billion and USD 4.4 billion to the German central government or the German federal states as of December 31, 2019 and 2018, respectively. For more information, see the 'mortgage loans and other loans' section.

D. Risk profile *continued*

Cash and cash equivalents
To reduce concentration, settlement and operational risks, the Group limits the amount of cash that can be deposited with a single counterparty. The Group also maintains an authorized list of acceptable cash counterparties.

Cash and cash equivalents amounted to USD 7.9 billion as of December 31, 2019 and USD 8.6 billion as of December 31, 2018. The risk-weighted average rating of the overall cash portfolio was 'A–' as of December 31, 2019 and 'A–' as of December 31, 2018. The 10 largest bank exposures represent 74 percent of the total, whose risk-weighted average rating was 'A' as of December 31, 2019 and 'A+' as of December 31, 2018.

Mortgage loans and other loans
Mortgage loans amounted to USD 5.9 billion as of December 31, 2019 and USD 6.6 billion as of December 31, 2018. The Group's largest mortgage loan portfolios are held in Switzerland (USD 3.2 billion) and in Germany (USD 1.9 billion); these are predominantly secured against residential property but also include mortgages secured by commercial property. The Group invests in mortgages in the U.S. (USD 0.6 billion); these are mainly participations in large mortgage loans secured against commercial property.

The credit risk arising from other loans is assessed and monitored together with the debt securities portfolio. Out of the USD 8.3 billion reported loans as of December 31, 2019, 54 percent are government-related, of which 92 percent are to the German central government or the German federal states. As of December 31, 2019, USD 4.5 billion were rated as 'AAA' (55 percent) compared with 4.7 billion as of December 31, 2018; USD 1.6 billion as 'AA' (20 percent) compared with 0.7 billion as of December 31, 2018; USD 0.3 billion as 'A' (3 percent) compared with 0.3 billion as of December 31, 2018; USD 1.3 billion as 'BBB' and below (16 percent) compared with 1.2 billion as of December 31, 2018; and USD 0.5 billion as unrated (6 percent) compared with 0.7 billion as of December 31, 2018.

Derivatives
The replacement value of outstanding derivatives represents a credit risk to the Group. These instruments include interest rate and cross-currency swaps, forward contracts and purchased options. A potential exposure could also arise from possible changes in replacement values. The Group regularly monitors credit risk exposures arising from derivative transactions. Outstanding positions with external counterparties are managed through an approval process embedded in derivative programs.

To limit credit risk, derivative financial instruments are typically executed with counterparties rated 'A–' or better by an external rating agency, unless collateral is provided as per Zurich's risk policy manuals. The Group's standard practice is to only transact derivatives with those counterparties for which the Group has in place an ISDA Master Agreement, with a Credit Support Annex. This mitigates credit exposures from over-the-counter transactions due to close-out netting and requires the counterparty to post collateral when the derivative position exceeds an agreed threshold. The Group further mitigates credit exposures from derivative transactions by using exchange-traded or centrally cleared instruments whenever possible.

D.2.6 Risk from currency exchange rates
Currency risk is the risk of loss resulting from changes in exchange rates. The Group operates internationally and therefore is exposed to the financial impact of changes in the exchange rates of various currencies. The Group's presentation currency is the U.S. dollar, but its assets, liabilities, income and expenses are denominated in many currencies, with significant amounts in euro, Swiss franc and British pound, as well as the U.S. dollar.

On local balance sheets a currency mismatch may cause a balance sheet's net asset value to fluctuate, either through income or directly through equity. The Group manages this risk by matching foreign currency positions on local balance sheets within prescribed limits. Residual local mismatches are reported centrally to make use of the netting effect across the Group. Zurich hedges these residual local mismatches within an established limit through a central balance sheet. For information on net gains/losses on foreign currency transactions included in the consolidated income statements, see note 1 of the consolidated financial statements in the Annual Report 2019. The monetary currency risk exposure on local balance sheets is considered immaterial.

Differences arise when functional currencies are translated into the Group's presentation currency, the U.S. dollar. The Group applies net investment hedge accounting to protect against the impact that changes in certain exchange rates might have on selected net investments.

The table below shows the total IFRS equity's sensitivity to changes in exchange rates for the main functional currencies to which the Group is exposed. Positive values represent an increase in the value of the Group's total equity. See notes 1, 3 and 7 of the consolidated financial statements in the Annual Report 2019 for additional information on foreign currency translation and transactions.

Sensitivity of the Group's total IFRS equity to exchange rate fluctuations

in USD millions, as of December 31	2018	**2019**
10% increase in		
EUR/USD rate	336	382
GBP/USD rate	215	270
CHF/USD rate[1]	482	529
BRL/USD rate	163	178
AUD/USD rate[2]	130	308
Other currencies/USD rates[1]	439	510

[1] The 2018 figures have been updated.
[2] AUD/USD rate sensitivity has been included in 2019 due to the impact of the OnePath acquisition on the Group.

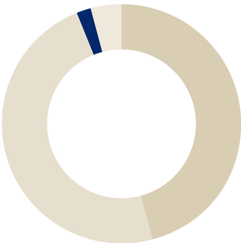
The sensitivities show the effects of a change of the exchange rates only, while other assumptions remain unchanged. The sensitivity analysis does not take into account management actions that might be taken to mitigate such changes. The sensitivities do not indicate a probability of such events occurring in the future. They do not necessarily represent Zurich's view of expected future market changes. While the table above shows the effect of a 10 percent increase in currency exchange rates, a decrease of 10 percent would have the converse effect.

D. Risk profile *continued*

D.3 Other credit risk

D.3.1 Section highlights

Total Z-ECM capital required: USD 34.5 billion
%, as of January 1, 2020



Insurance risk	**46%**
Market risk, including investment credit risk	**48%**
Other credit risk	**2%**
Operational risk	**4%**

Key risk and capital indicators
Z-ECM, in USD billions

	January 1, 2019	**January 1, 2020**
Reinsurance credit risk	0.8	0.8

Credit risk is the risk associated with a loss or potential loss from counterparties failing to fulfill their financial obligations. See section 'risks from defaults of counterparties' for market-risk-related asset categories. The Group's exposure to other credit risk is derived from the following main categories of assets:

- Reinsurance assets
- Receivables

The Group's objective in managing credit risk exposures is to maintain them within parameters that reflect the Group's strategic objectives, and its risk appetite and tolerance. Sources of credit risk are assessed and monitored, and the Group has policies to manage specific risks within various subcategories of credit risk. To assess counterparty credit risk, the Group uses ratings assigned by external rating agencies, qualified third parties such as asset managers, and internal rating assessments. If external rating agencies' ratings differ, the Group generally applies the lowest, unless other indicators justify an alternative, which may be an internal credit rating.

The Group regularly tests and analyzes credit risk scenarios and prepares possible contingency measures that may be implemented if the credit risk environment worsens.

The Group actively uses collateral to mitigate credit risks. Nevertheless, underlying credit risks are managed independently from the collateral. The Group has limits and quality criteria to identify acceptable letter-of-credit providers. Letters of credit enable Zurich to limit the risks embedded in reinsurance, captives, deductibles, trade credit and surety.

The Group has counterparty limits, which are regularly monitored. Exposure to counterparties' parent companies and subsidiaries is aggregated to include reinsurance assets, investments, derivatives, and certain insurance products. There was no unapproved material exposure in excess of the Group's limits for counterparty aggregation as of December 31, 2019 nor December 31, 2018.

On-balance sheet exposures are the main source of credit risk. Off-balance sheet credit exposures are related primarily to certain insurance products, reinsurance and collateral used to protect underlying credit exposures on the balance sheet. The Group also has off-balance sheet exposures related to undrawn loan commitments of USD 1.5 million and USD 2.0 million as of December 31, 2019 and 2018, respectively. See note 22 of the consolidated financial statements for undrawn loan commitments.

D.3.2 Credit risk related to reinsurance assets

The Group's Corporate Reinsurance Security Committee manages the credit quality of cessions and reinsurance assets. The Group typically cedes new business to authorized reinsurers with a minimum rating of 'A–.' As of December 31, 2019 and 2018 respectively, 57 percent and 52 percent of the exposure ceded to reinsurers that are rated below 'A–' or are not rated, was collateralized. Of the exposure ceded to reinsurers that are rated below 'A–' or are not rated, 65 percent was ceded to captive insurance companies in 2019, and 50 percent in 2018.

Reinsurance assets included reinsurance recoverables (the reinsurers' share of reserves for insurance contracts) of USD 22.8 billion and USD 21.3 billion, and receivables arising from ceded reinsurance of USD 1.5 billion and USD 1.1 billion as of December 31, 2019 and 2018, respectively, gross of allowance for impairment. Reserves for potentially uncollectible reinsurance assets amounted to USD 119 million as of December 31, 2019 and USD 113 million as of December 31, 2018. The Group's policy on impairment charges takes into account both specific charges for known situations (e.g., financial distress or litigation) and a general, prudent provision for unanticipated impairments.

Reinsurance assets in the next table are shown before taking into account collateral such as cash or bank letters of credit and deposits received under ceded reinsurance contracts. Unsecured reinsurance assets shown are after deducting collateral. Except for an immaterial amount, letters of credit are from banks rated 'A–' or better. Collateral increased by USD 0.7 billion to USD 10.3 billion per December 31, 2019, compared with 2018.

The following table shows reinsurance assets and unsecured reinsurance assets split by rating.

Reinsurance assets and unsecured reinsurance assets by rating of reinsurer and captive

as of December 31	2018				**2019**			
	Reinsurance assets		Unsecured reinsurance assets		**Reinsurance assets**		**Unsecured reinsurance assets**	
	USD millions	% of total	USD millions	% of total	**USD millions**	**% of total**	**USD millions**	**% of total**
Rating								
AAA	9	0.0%	9	0.1%	6	0.0%	6	0.0%
AA	5,633	25.3%	5,173	40.8%	7,084	29.3%	6,309	45.7%
A	10,882	48.9%	4,740	37.4%	10,957	45.4%	4,871	35.3%
BBB	1,572	7.1%	983	7.8%	2,356	9.8%	1,095	7.9%
BB	447	2.0%	232	1.8%	335	1.4%	195	1.4%
B and below	645	2.9%	37	0.3%	256	1.1%	29	0.2%
Unrated	3,085	13.9%	1,510	11.9%	3,163	13.1%	1,308	9.5%
Total[1]	**22,273**	**100.0%**	**12,685**	**100.0%**	**24,157**	**100.0%**	**13,812**	**100.0%**

[1] The value of the collateral received amounts to USD 10.3 billion and USD 9.6 billion as of December 31, 2019 and 2018, respectively.

D.3.3 Credit risk related to receivables

The Group's largest credit-risk exposure to receivables is related to third-party agents, brokers and other intermediaries. It arises where premiums are collected from customers to be paid to the Group, or to pay claims to customers on behalf of the Group. The Group has policies and standards to manage and monitor credit risk related to intermediaries. The Group requires intermediaries to maintain segregated cash accounts for policyholder money. The Group also requires that intermediaries satisfy minimum requirements of capitalization, reputation and experience, and provide short-dated business credit terms.

Receivables that are past due but not impaired should be regarded as unsecured, but some of these receivable positions may be offset by collateral. The Group reports internally on Group past-due receivable balances and strives to keep the balance of past-due positions as low as possible, while taking into account customer satisfaction.

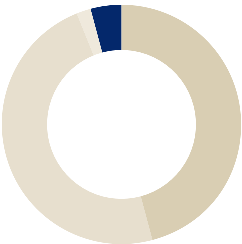
Receivables from ceded reinsurance are part of reinsurance assets and are managed accordingly. See notes 15 and 24 of the consolidated financial statements for additional information on receivables.

D. Risk profile *continued*

D.4 Operational risk

Section highlights

Total Z-ECM capital required: USD 34.5 billion
%, as of January 1, 2020



Insurance risk	46%
Market risk, including investment credit risk	48%
Other credit risk	2%
Operational risk	4%

Key risk and capital indicators
Z-ECM, in USD billions

	January 1, 2019	**January 1, 2020**
Operational risk	1.2	1.2

Operational risk is the risk of financial loss or gain, adverse reputational, legal or regulatory impact, resulting from inadequate or failed processes, people, systems or from external events, including external fraud, catastrophes, or failure in outsourcing arrangements. Zurich has a framework to identify, assess, manage, monitor, and report operational risk within the Group. Within this framework, the Group:

- Uses a scenario-based approach to assess, model and quantify the capital required for operational risk for business units under extreme circumstances. This approach allows information to be compared across the Group and highlights the main scenarios contributing to the Z-ECM capital required.
- Documents and reviews operational events exceeding a threshold determined per Zurich's risk policy manuals. Remedial action is taken to avoid the recurrence of such operational events.
- Conducts risk assessments where operational risks are identified for key business areas. Risks identified and assessed above a certain threshold must have a risk response. Risk mitigation plans are documented and tracked on an ongoing basis. In the assessments, the Group uses sources of information such as the Total Risk Profiling™ process, internal control assessments, and audit findings, as well as scenario modeling and operational event data.

The Group has specific processes and systems in place to focus on high-priority operational matters such as managing information security and operational resilience (see sub-section digital and resilience risk, information security and operational resilience), as well as combating fraud.

Preventing, detecting and responding to fraud are embedded in Zurich's business processes. Both claims and non-claims fraud are included in the common framework for assessing and managing operational risks. For Z-ECM calculations, claims fraud is part of insurance risk and non-claims fraud is part of operational risk.

D.5 Liquidity risk

Liquidity risk is the risk that the Group may not have sufficient liquid financial resources to meet its obligations when they fall due, or would have to incur excessive costs to do so. Zurich's policy is to maintain adequate liquidity and contingent liquidity to meet its liquidity needs under normal conditions and in times of stress. To achieve this, the Group assesses, monitors and manages its liquidity needs on an ongoing basis.

Group-wide liquidity management policies and specific guidelines govern how local businesses plan, manage and report their local liquidity and include regular stress tests for all major legal entities and branches within the Group. The stress tests use a standardized set of internally defined stress events, and are designed to provide an overview of the potential drain on liquidity if the Group had to recapitalize local balance sheets. Similar guidelines apply at the Group level, and detailed liquidity forecasts are regularly conducted, based on local businesses' input and the Group's forecasts. As part of its liquidity management, the Group maintains sufficient cash and cash equivalents and high-quality, liquid investment portfolios to meet outflows under expected and stressed conditions. The Group also maintains internal liquidity sources that cover the Group's potential liquidity needs, including those that might arise in times of stress. The Group takes into account the amount, availability and speed at which these sources can be accessed. The Group has access to diverse funding sources to cover contingencies, including asset sales, external debt issuance and making use of committed borrowing facilities or letters of credit. The Group maintains a range of maturities for external debt securities. A potential source of liquidity risk is the effect of a downgrade of the Group's credit rating. This could affect the Group's commitments and guarantees, potentially increasing liquidity needs. This risk, and mitigating actions that might be employed, are assessed on an ongoing basis within the Group's liquidity framework.

The Group regularly analyzes the liquidity of the investment assets and ensures that the liquidity of assets stays in line with liquidity requirements. During 2019, the Group was within its capacity to hold illiquid assets.

For more information on debt obligation maturities, see note 18 of the consolidated financial statements, and for information on commitments and guarantees, see note 22 of the consolidated financial statements in the Annual Report 2019.

The Group's ongoing liquidity monitoring includes regular reporting to the executive management and quarterly reporting to the Risk and Investment Committee of the Board, covering aspects such as the Group's actual and forecast liquidity, possible adverse scenarios that could affect the Group's liquidity and possible liquidity needs from the Group's main subsidiaries, including under conditions of stress.

For more information on the Group's other financial liabilities, see note 16 of the consolidated financial statements in the Annual Report 2019. See note 6 of the consolidated financial statements in the Annual Report 2019 for information on the maturity of debt securities.

The Group has committed to contribute capital to subsidiaries and third parties that engage in making investments in direct private equity and private equity funds. Commitments may be called by the counterparty over the term of the investment (generally three to five years) and must be funded by the Group on a timely basis. See note 22 of the consolidated financial statements in the Annual Report 2019.

D. Risk profile *continued*

D.6 Strategic risk and risks to the Group's reputation

Strategic risk

Strategic risk corresponds to the risk that Zurich is unable to achieve its strategic targets.

Strategic risks can arise from:

- Inadequate risk-reward assessment of strategic plans
- Improper execution of strategic plans
- Unexpected changes to underlying assumptions

Zurich defines the strategy as the long-term plan of action designed to allow the Group to achieve its goals and aspirations based on Zurich's purpose and values and strategic options.

The Group works to reduce unintended risks of strategic business decisions through its risk assessment processes and tools, including the Total Risk Profiling™ process. As part of the annual assessment of strategic risks, the Executive Committee (ExCo) assessed potential risks from both external and internal factors, looking at 2020 and beyond. These include: macro-economic risks such as financial stress due to geopolitical uncertainties and monetary policy with impacts primarily on insurance and market risk; adoption to post-Brexit legal and regulatory regime; adequately transform propositions and approaches for new customer segments and other changes affecting competitiveness in markets where Zurich is active; and information security including cyber and business resilience risks. The ExCo has defined actions to respond as appropriate and reviews changes to the key risks and their status of actions at least quarterly.

The Group evaluates the risks of merger and acquisition (M&A) transactions both from a quantitative and a qualitative perspective. The Group conducts risk assessments of M&A transactions to evaluate risks specifically related to integrating acquired businesses.

Risks to the Group's reputation

Risks include acts or omissions by the Group or any of its employees that could damage the Group's reputation or lead to a loss of trust among its stakeholders. Every risk type has potential consequences for Zurich's reputation. Effectively managing each risk type supports preventing adverse reputation outcomes.

The Group aims to preserve its reputation by adhering to applicable laws and regulations, by following the core values and principles of the Group's code of conduct that promote integrity and good business practice, and by living up to its sustainability commitments. The Group centrally manages certain aspects of reputation risk, for example, communications, through functions with the appropriate expertise. Potential risks to Zurich's reputation are included in its risk assessment processes and tools, including the TRP process.

D.7 Sustainability risk

Zurich's ambition is to be known as one of the most responsible and impactful businesses in the world. Trends like globalization, the mobility of talent and funds, shifting geopolitics, reskilling for a digital workforce, demographics, and climate change all pose immensely complex social issues. These issues demand solutions from an increasingly stretched set of governmental and multilateral institutions.

Sustainability risks are also becoming more complex and interconnected as a result of these trends. Insurers are increasingly expected to be agents of change and play a more impactful role in addressing these societal issues and interconnected risks.

Zurich works with its customers and investee companies to ensure responsible and sustainable business practices while promoting best practices in managing environmental, social, and governance (ESG) risks. The Group has policies in place that define the ESG topics for which Zurich has no underwriting or investment appetite. Zurich continuously works to develop relevant products and services that help solve today's most pressing societal and environmental issues.

D.7.1 Sustainability risk framework

To support the Group's businesses in applying its purpose and values as well as mitigating reputational risk impacts, Zurich has established a systematic and integrated approach to identifying, assessing and recommending action on potential risk and opportunity areas from a sustainability perspective across all the Group's activities, but in particular in Group Investment Management and Group underwriting.

This is a three-step process:

- **Issue identification:** identify relevant issues, by monitoring channels such as media and social media, as well as information from non-government organizations (NGOs), Zurich's businesses, and identify issues to be taken up within the risk assessment process.
- **Risk assessment:** assess issues related to public commitments, the role of insurance underwriting, market exposure and materiality. The executive committee (ExCo) approves position statement on issues, recommends business actions, and issues for reputational management considerations.
- **Implementation:** implement mitigation actions and reputational action plans locally in the businesses. Mobilize expert support available across the Group and escalate as necessary, according to governance procedures.

Zurich's underwriting and investment activities apply those positions across portfolios based on stated thresholds and verified third-party data. Wherever possible, for customers that are on the margins of Zurich's thresholds, Zurich engages and works together with customers to ensure responsible and sustainable business practices. This engagement period may be short, but in some cases can be for a period of up to two years, depending on which part of the renewal cycle customers are in and the time required for them to demonstrate credible progress on ESG issues.

Clear roles and responsibilities, starting with the Zurich Insurance Group Ltd Board of Directors and including the Zurich management, aim to ensure effective oversight and action with respect to climate change and other sustainability risks.

Zurich's Sustainability Leaders Council ensures that its approach to sustainability is effectively integrated in the way business is conducted and enables Zurich to live up to its code of conduct, its purpose and values, and the United Nations (UN) Global Compact. The Council comprises senior executives from across the business and is chaired by the Group Head of Public Affairs and Sustainability.

D.7.2 Climate-change risk

Climate change is perhaps the most complex risk facing society today: it is intergenerational, international and interdependent. As a global insurer, Zurich faces risks from climate change and provides this disclosure per its commitment to adopt the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Climate strategy

Zurich's climate strategy is guided by its commitment to the business ambition for 1.5°C pledge aimed at limiting average global temperature increases to 1.5°C. A comprehensive climate road-map to transform Zurich into a 1.5°C compatible company is under development, with the goal to protect the Group's balance sheet, capture climate-related service and product revenues by supporting our customers and society to build resilience to climate impacts and transition to a zero-carbon economy.

Climate-related physical risks

Changes are expected in the frequency, severity and geographical distribution of extreme weather events such as tropical cyclones and extreme rainfall and associated flooding or heat waves in the event that society fails to limit climate change to well below an increase of two degrees Celsius. Scientific consensus suggests society is likely to experience devastating impacts as a result of these changes. Current climate models, such as the International Panel on Climate Change (IPCC) model upon which Zurich bases its internal climate scenarios, indicate that physical climate-change risk will begin to rise more materially after the next two decades if left unmitigated.

Over the short term, natural climate variability will have a greater impact on natural catastrophe losses than long-term climate-change trends. Regional variations will be large, however, areas that are particularly exposed are likely to experience such changes earlier. To accommodate the evolving nature of climate risk, Zurich considers both near-term (three to five year) and long-term (five to 10 year) time horizons, with the long-term view used as a basis to develop mitigating actions. Overall the Group considers its near-term (less than five years) climate-change-related risks to be manageable and foreseeable, whereas long-term risks to be elevated and highly uncertain.

D. Risk profile *continued*

Zurich is exposed to physical risk of climate change through the underwriting and real estate investment portfolios. While assessing and managing the impact of extreme weather events is part of Zurich's core business competency, changes in frequency and severity of events caused by climate change add to the challenges in accurately measuring expected impacts. As commercial catastrophe models are typically based on historical data and hence backward-looking, they might not sufficiently account for climate risks already materializing. Potential model gaps are addressed as part of Zurich's model validation process and the Zurich view approach provides further review for impacts that Zurich considers under-represented in the standard models. Generally, annual policy renewals provide a degree of insulation against increasing physical risks for short-tail business. However, the ability to isolate gradual changes to the risk (e.g., a change in frequency, severity or correlations), and therefore capture the impacts of a changing climate, become more pressing over a longer time-frame, especially for long-tail lines of business.

There is also a risk that physical events reduce the profitability of investments across asset classes (e.g., equities, real estate, sovereign or corporate bonds), though analysis suggests that very significant impairments would be required for Zurich's portfolio to be materially impacted.

Zurich considers the risk to its own operations from climate risk as less material, as they are generally not located in highly exposed areas and business continuity plans are in place to react to relevant extreme weather events.

Climate-related transition risk
Each major economy is likely to respond to transition risks in specific ways, and within different time periods. Shifts toward a low-carbon economy carried out in specific sectors are likely to affect not only those individual sectors, but other parts of the economy as well. There are at least three aspects to consider within this transition process; its effect on technologies, economies, and society. The insurable risks related to these transitions could develop in many different ways.

Achieving a transition to a low-carbon economy requires fundamental changes to all parts of the economy. While limiting climate change to 2°C or below will lower physical climate risk, the technological and policy changes required to achieve this create their own sets of risks. Independent of the precise pathway, the transition could be disruptive, as significant asset price moves are required to shift resources to low-carbon technology on a global scale. Changes in public perception and the regulatory landscape could reshape legal and reputational risks. Transition risks are considered to be more uncertain than physical risks. Zurich uses a climate scorecard to measure transition-risk-related indicators, with Zurich's assessment indicating that a physical risk path currently is significantly more likely than a transition path. However, transition risks and physical risks are not mutually exclusive and can potentially co-exist, depending on the timing, speed and effectiveness of the path followed.

Zurich could be exposed to transition risks if it fails to manage changing market conditions and customer needs as part of the transition to a low-carbon economy, resulting in asset impairment, opportunity cost and lost market share. In a transition scenario, industries unable to de-carbonize could experience declining profitability and lack of re-financing, which could lead to a lack of maintenance with increasing rates of outages and equipment break-downs that translate into higher insurance losses. Failure to manage transition risk could also lead to reputational impacts, both internal and external, resulting from a failure to deliver on publicly stated commitments. Although not considered material in the near-term, the increasing frequency of climate-related legal action suggests climate-related litigation could represent a significant potential risk in the long term.

While transition risks are not considered material in the short term, strategic responses to these risks are underway. These include the definition of an overall differentiated market position on climate change that is tied to the Group's purpose and values, and the development of an underpinning suite of products and services that complement its existing responsible investment strategy. Zurich recently signed-up to the United Nations global compact business ambition for 1.5°C pledge limiting average global temperature increases to 1.5°C. The implementation of this will further reduce the Group's exposure to transition risk.

Climate-related opportunities
Zurich sees business opportunities both in helping its customers manage physical risk and transition risk, as well as benefiting from the changes required to move towards a low-carbon economy. As an innovative insurer, Zurich is positioned to take advantage through its climate-change-related products and services which enable existing and prospective customers to better understand and manage their exposure to climate risks and to enhance their resilience to both physical and transition risk.

Climate-related regulations aimed at incentivizing a low-carbon economy result in an increased demand for alternative low-carbon solutions and provide opportunities for new markets. The impact which is currently expected to be low in the short to medium-term, will increase over time. Zurich has considerable expertise in providing insurance solutions for green assets and takes advantage of environmentally oriented opportunities through products and services for electric vehicles, renewable energy, etc., around the world. For example, electric vehicles (EV) are expected to be a significant and growing segment in the new vehicle market with Zurich leading the way in developing customized motor insurance solutions that meet the needs of EV customers.

As an investor, Zurich has established responsible investment and climate-change investment strategies, including impact investments, green bonds, and a comprehensive approach to ESG integration. Impact investments can help mitigate climate change through their targeted, positive impact, and also offer a financial return commensurate with risks. Zurich will consider impact investments that help increase energy efficiency, generate renewable energy or mitigate climate change or protect the environment in other ways. Through its commitment to the green bonds market, Zurich is seeking to capture opportunities across the universe of environmental oriented, social and sustainable bonds.

Risk management

Zurich's approach to managing climate risk is embedded within its multi-disciplinary Group-wide risk management processes. As such, climate risk is managed in a manner consistent with how other risks to the Group are managed. Under the sponsorship of the Group CRO, Zurich conducts an annual Group-wide assessment of climate-change-related risks using the Total Risk Profile (TRP™) approach. This assessment, involving subject matter experts from relevant business areas, includes identifying management actions appropriate to the risks identified.

Internal scenarios representing an archetypical-transition path and a physical-risk path provide the assumptions underlying the assessment. Zurich developed a climate-change scorecard, which aims to measure developments in a range of climate-transition-related areas. It uses quantitative data and draws on various climate-change scenarios constructed by the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA). To assess financial impacts of potential climate scenarios, climate risks are also assessed as part of its Own Risk and Solvency Assessment (ORSA) and this year it included a scenario based on the rapid implementation of economic and other policies to stress-test potential transition risk exposure.

For more information on how Zurich manages its liability exposure to climate-related natural catastrophes, see sub-section 'Insurance risk'.

Metrics

Key performance indicators (KPIs) for sustainability focus areas were defined to ensure continuous improvement in performance on responsible business practices. The metrics in place are designed to track the mitigation of operational and investment related risks. Latest data for these metrics, along with historical data to facilitate trend analysis, can be found on the webpage: https://www.zurich.com/sustainability/being-a-responsible-business/measuring-our-progress .

D. Risk profile *continued*

D.8 Digital and resilience risk

Digital transformation and technological advances have not only created a wide spectrum of benefits for society but also amplified risks that need to be understood and managed. Assessing cyber risk, information and data security risk, risks arising from emerging technologies and innovation in the digital space remain a key focus in determining the Group's exposure to risks resulting from digital transformation. Based on a dedicated framework, these assessments support delivering assurance, risk insights and oversight, and make use of enhanced capabilities to ensure the Group's resilience.

D.8.1 Holistic and interdisciplinary approach

By applying a holistic approach to assessing digital trends, the Group provides new risk insights that enable Zurich to achieve a rapid and resilient digital transformation. In order to ensure effective governance and monitoring, on-going proactive, pragmatic and solution-oriented approaches focus on risk and controls with a strong emphasis on enabling the business while safeguarding the enterprise from risks in the digital space.

Cyber and technology risk

The relevance of technological risks such as cyber risk is rapidly increasing across all data-driven industries. Exposure to these risks has grown in lockstep with the significant rise in digital services provided directly to customers and the increasing prevalence of digital ecosystems and cloud solutions in today's interconnected world. On a continuous basis, Zurich assesses and monitors exposure to defined information security and cyber risk scenarios through key risk indicators (KRIs) to effectively focus on actions and adequate resource allocation.

Data risk

The strategic relevance of data as a business asset is rising at a rapid pace and the risks associated with data management are growing more and more prominent. Preventing risks such as data losses and privacy breaches, and assessing and monitoring the potential misuse of data and losses triggered by failures in data management remain in focus. Specifically, appropriate governance of data for business purposes and decision-making processes, including automation, machine-learning techniques and other advanced technologies are a priority. As Zurich strives to inspire confidence in a digital society with its data commitment, assurance on the ethical use of advanced technologies is provided from a risk management perspective for the protection and privacy of data of our customers and all other stakeholders.

Third-party and transformation risk

Outsourcing and the engagement with third parties introduces risks relevant to the delivery of our strategy, such as data loss or disclosure, disruption to critical customer services and regulatory compliance. Digitization has accelerated the complexity and changes to the Group's third-party ecosystem. Zurich looks to address risks associated with third-party engagements along its supply and value chain. Applying a consistent Group-wide approach to outsourcing governance is among Zurich's key priorities.

Business resilience risk

Zurich, along with the rest of the insurance industry, is going through a period of transformation in order to meet changing customer expectations. In addition, increasing automation of processes, development of advanced analytics capabilities, and fragmented supply chains have contributed to an increasingly complex operating environment. In response to these challenges and to better protect the interests of our stakeholders, Zurich has initiated a business resilience program which clearly defines resilience-action-plan responsibility, identifies critical business services susceptible to systemic technology failure, integrates its response frameworks, and provides enhanced transparency through a set of KRIs addressing resilience across the organization.

D.8.2 Digital policy – new insights and sustainability

Internal policies for managing digital risk are aligned to Zurich's sustainability strategy and are implemented by the businesses. Zurich's aspires to not only follow but also influence the public policy discourse on digital transformation and innovation risks. Zurich takes an active role in thought leadership in digital risk management across the industry and is committed to strengthening the link between digitization and sustainability, supporting digital literacy to enable effective risk management and it is endorsing the trustworthy use of advanced technologies to make sure the Group's values are adhered to and observed.

E. Valuation

E.1 Overarching market-consistent valuation principle

The following section presents the Group's market-consistent balance sheet (MCBS), i.e., the valuation of assets and liabilities in a market-consistent way, including the market-consistent discounting of insurance liabilities. Under the SST, the MCBS is essential in determining the Group's risk-bearing capital.

As an overarching principle, all assets and liabilities are valued in accordance with economic principles in a market-consistent manner. A market-consistent valuation is based on, and does not contradict to, the most recent information that can be obtained from trading in liquid and transparent financial markets.

FINMA stipulates that the SST market-consistent balance sheet value of all insurance and non-insurance liabilities (with the exception of instruments eligible for risk-bearing capital) shall be determined under the assumption that ZIG will fulfill its obligation in full; thus, own credit risk is not considered.

In summary, the following valuation methods apply:

MCBS valuation principles

Mark-to-market	Highest priority for third-party assets, IFRS equity instruments and eligible capital instruments	Fair value as defined in the consolidated IFRS financial statements.
Mark-to-model	If mark-to-market cannot be applied	Fair value as defined in the consolidated IFRS financial statements; or
		Best estimate valuation using parameter or assumptions explicitly stipulated by FINMA (e.g. liabilities valued at discounted cash flows using risk-free rate, thus, without consideration of own credit risk).
IFRS carrying value		As a practical expedient, IFRS carrying value other than fair value is used as proxy to market-consistent valuation provided such measurement can be considered reasonable. For example, IFRS carrying value may be considered as a reasonable proxy based on the following considerations: - It represents current balances (e.g., cash accounts); or - It involves high-frequency turnover with daily settlements (e.g., operational clearing accounts); or - It is expected to be settled/realized within relatively short period after origination (generally, within three months and always less than twelve months) and is exposed to only insignificant risk of changes in value.

When applying the mark-to-model method, adequate and best-practice valuation models and methodologies are used and sufficiently documented.

For more information on fair value measurement, see notes, 6, 7 and 23 of the consolidated financial statements in the Annual Report 2019, pages 208 to 210, 211 to 214, 255 to 262. The summary of accounting policies underlying IFRS valuations, as well as significant judgments and assumptions, are included in notes 3 and 4 of the consolidated financial statements in the Annual Report 2019, pages 194 to 204.

E. Valuation *continued*

E.2 Market-consistent balance sheet following SST principles

FINMA has established the Swiss Solvency Test to assess risk quantitatively. SST calculations are based on a market-consistent valuation of balance sheet positions. The following tables show the main drivers for the differences in valuation between MCBS (used for SST purposes) and the IFRS values, where certain IFRS amounts have been reclassified in order to comply with FINMA requirements.

Note that in 2019, Reinsurers' share of best estimate of insurance liabilities is reported as an asset whereas in 2018 it was reported as a liability. Prior year figures have been restated to reflect this change.

Asset valuation MCBS vs IFRS

In USD millions, as of December 31	2018 (SST)	**2019 (SST)**	Evolution 2018–2019 (SST)	**2019 (IFRS)**	Difference 2019 (IFRS – SST)
Market-consistent value of investments					
Real estate	12,351	13,261	910	13,261	0
Participations	36	39	3	39	–
Fixed-income securities	124,068	126,426	2,359	125,774	652
Loans	9,130	9,832	702	8,215	1,617
Mortgages	6,934	6,350	(584)	5,935	415
Equities	7,644	8,408	765	8,408	0
Other investments	25,298	31,680	6,382	31,680	0
Collective investment schemes	3,682	4,620	938	4,620	0
Alternative investments	3,308	8,937	5,629	8,937	0
Structured products	0	0	0	0	0
Other investments	18,308	18,123	(185)	18,123	0
Total Investments	**185,461**	**195,996**	**10,535**	**193,312**	**2,684**
Market-consistent value of other assets					
Financial investments from unit-linked life insurance	133,047	126,591	(6,456)	126,591	–
Receivables from derivative financial instruments	899	1,226	328	1,226	0
Deposits made under assumed reinsurance contracts	965	783	(182)	726	57
Cash and cash equivalents	8,669	7,915	(754)	7,880	35
Reinsurers' share of best estimate of provisions for insurance liabilities	17,567	21,227	3,660	22,752	(1,525)
Direct insurance: life insurance business (excluding unit linked life insurance)	4,916	6,175	1,259	6,864	(689)
Reinsurance: life insurance business (excluding unit linked life insurance)	317	381	64	388	(7)
Direct insurance: non-life insurance business.	7,469	9,580	2,110	8,960	620
Direct insurance: health insurance business	0	0	0	0	0
Reinsurance: non-life insurance business	4,865	5,090	224	6,539	(1,449)
Reinsurance: health insurance business	0	0	0	0	0
Direct insurance: other business.	0	0	0	0	0
Reinsurance: other business	0	1	1	1	0
Direct insurance : unit-linked life insurance business.	–	–	0	0	–
Reinsurance: unit-linked life insurance business	0	0	0	0	0
Fixed assets	1,470	3,008	1,539	2,635	373
Deferred acquisition costs	0	0	0	19,200	(19,200)
Intangible assets	0	0	0	8,968	(8,968)
Receivables from insurance business	9,775	9,540	(234)	9,659	(119)
Other receivables	3,574	4,019	445	3,748	271
Other assets	654	1,285	631	3,735	(2,450)
Unpaid share capital	0	0	0	0	0
Accrued assets	3,171	3,297	126	4,444	(1,148)
Total other assets	**179,789**	**178,892**	**(897)**	**211,566**	**(32,675)**
Total market-consistent value of assets	**365,250**	**374,888**	**9,638**	**404,879**	**(29,991)**

MCBS vs IFRS – best estimate liabilities and risk-bearing capital

In USD millions, as of December 31	2018 (SST)	2019 (SST)	Evolution 2018–2019 (SST)	2019 (IFRS)	Difference 2019 (IFRS – SST)
BEL: Best estimate liabilities (including unit linked life insurance)					
Best estimate of provisions for insurance liabilities	**(162,771)**	**(171,054)**	**(8,283)**	**(195,496)**	**24,442**
Direct insurance: life insurance business (excluding unit linked life insurance)	(94,743)	(101,913)	(7,170)	(115,926)	14,013
Reinsurance: life insurance business (excluding unit linked life insurance)	(694)	(2,045)	(1,351)	(2,102)	57
Direct insurance: non-life insurance business	(63,182)	(63,022)	160	(72,799)	9,777
Direct insurance: health insurance business	0	0	0	0	0
Reinsurance: non-life insurance business	(3,676)	(3,558)	118	(3,919)	361
Reinsurance: health insurance business	0	0	0	0	0
Direct insurance: other business	(470)	(508)	(38)	(742)	234
Reinsurance: other business	(6)	(7)	(2)	(7)	0
Best estimate of provisions for unit-linked life insurance liabilities	**(129,531)**	**(122,744)**	**6,788**	**(126,650)**	**3,906**
Direct insurance: unit-linked life insurance business	(129,532)	(122,744)	6,789	(126,650)	3,906
Reinsurance: unit-linked life insurance business	1	–	(1)	–	0
Market consistent value of other liabilities					
Non-technical provisions	(3,397)	(3,338)	59	(3,344)	6
Interest-bearing liabilities	(5,978)	(5,644)	334	(5,215)	(429)
Liabilities from derivative financial instruments	(325)	(365)	(40)	(365)	0
Deposits retained on ceded reinsurance	(432)	(911)	(480)	(994)	82
Liabilities from insurance business	(3,612)	(4,023)	(411)	(4,020)	(3)
Other liabilities	(8,971)	(11,601)	(2,629)	(13,040)	1,440
Accrued liabilities	(4,238)	(4,492)	(255)	(13,899)	9,406
Subordinated debts	(6,851)	(7,680)	(830)	(6,852)	(829)
Total BEL plus market-consistent value of other liabilities	(326,107)	(331,853)	(5,747)	(369,875)	38,022
Market-consistent value of assets minus total from BEL plus market-consistent value of other liabilities	**39,142**	**43,035**	**3,892**	**35,004**	**8,031**

E. Valuation *continued*

E.2.1 Evolution of assets since 2018

Total Investments

The market value of Total Investments increased by USD 10.5 billion from USD 185.5 billion as of December 31, 2018 to USD 196.0 billion as of December 31, 2019.

The movement is primarily driven by an increase in **Total other investments** of USD 6.4 billion from USD 25.3 billion in December 31, 2018 to USD 31.7 billion in December 31, 2019 which reflects net purchases of USD 1.2 billion, positive market revaluation of USD 0.9 billion and a reclassification of USD 4.3 billion from Fixed-income securities to Alternative investments with a net nil impact to the AFR. Collective investment schemes increased by USD 0.9 billion from USD 3.7 billion in December 31, 2018 to USD 4.6 billion in December 31, 2019 mostly due to the OnePath acquisition in Australia of USD 0.5 billion and market value increase in Switzerland of USD 0.2 billion. These increases were offset by a decrease in Other investments of USD 0.2 billion from USD 18.3 billion in December 31, 2018 to USD 18.1 billion in December 31, 2019 as a result of a shift in asset allocation following a decrease in net purchases and a decline in market value of USD 0.3 billion.

Fixed-income securities increased by USD 2.3 billion from USD 124.1 billion in December 31, 2018 to USD 126.4 billion in December 31, 2019 driven by rising market value of USD 4.2 billion, net purchases of USD 3.1 billion as offset by a reclassification of USD 4.3 billion to Other Investments with a net nil impact to the AFR and negative effects of currency translation of USD 0.4 billion. The increase in market value is the result of the dropping yields in the US and in Europe, tightening credit spreads in 2019 amid falling government yields in Germany of USD 1.7 billion, in the US of USD 1.0 billion, in Italy of USD 1.0 billion offset by a decrease in Argentina of USD 0.7 billion. Net purchases in Italy of USD 1.5 billion and in Australia of USD 1.2 billion, driven by the acquisition of OnePath offset by net sales of USD 1.2 billion in the UK.

Real estate increased by USD 0.9 billion from USD 12.4 billion in December 31, 2018 to USD 13.3 billion in December 31, 2019 as a result of increases in fair value of USD 0.4 billion across many regions and net acquisitions of USD 0.5 billion.

Equities increased by USD 0.8 billion from USD 7.6 billion in December 31, 2018 to USD 8.4 billion in December 31, 2019. The increase is primarily due to strong equity market performance throughout 2019 which increased market values by USD 1.1 billion, offset by net sales of USD 0.3 billion, mainly in Germany.

Loans increased by USD 0.7 billion from USD 9.1 billion in December 31, 2018 to USD 9.8 billion in December 31, 2019, resulting from the OnePath acquisition of USD 0.9 billion, net acquisition in the US of USD 0.1 billion and by positive change in fair values of USD 0.3 billion, mainly in Germany. These increases were partially offset by unfavorable currency movements of USD 0.2 billion, maturities and net sales in Germany of USD 0.3 billion, Bermuda of USD 0.2 billion and in Spain of USD 0.1 billion.

Mortgages decreased by USD 0.6 billion from USD 6.9 billion in December 31, 2018 to USD 6.3 billion in December 31, 2019. The decrease is mainly due to maturities and net sale in Germany of USD 0.4 billion and in Switzerland of USD 0.3 billion, following a change in the asset allocation.

Total other assets

The market-consistent value of **total other assets** decreased by USD 0.9 billion from USD 179.8 billion as of December 31, 2018 to USD 178.9 billion as of December 31, 2019.

Financial investments from unit-linked life insurance decreased by USD 6.5 billion from USD 133.1 billion in December 31, 2018 to USD 126.6 billion in December 31, 2019. The decrease is mainly driven by the completion of the sale of the UK workplace pensions and savings business of USD 20.3 billion mostly offset by favorable market movements and new business in Ireland of USD 3.4 billion and strong fund performance in Germany of USD 3.0 billion and in Isle of Man of USD 1.8 billion. Additionally, new business growth in Brazil Santander of USD 1.9 billion, in Italy of USD 1.1 billion and positive market movements in the US of USD 1.0 billion.

Cash and cash equivalents decreased by USD 0.8 billion from USD 8.7 billion as of December 31, 2018 to USD 7.9 billion as of December 31, 2019.

Receivables from insurance business decreased by USD 0.3 billion from USD 9.8 billion as of December 31, 2018 to USD 9.5 billion as of December 31, 2019 mainly in Zurich North America of USD 0.5 billion, partially offset by an increase of USD 0.2 billion due to the OnePath acquisition.

Deposits made under assumed reinsurance contracts decreased by USD 0.2 billion from USD 1 billion as of December 31, 2018 to USD 0.8 billion as of December 31, 2019 mainly due to changes in collateral in Bermuda.

These decreases have been partially offset by an increase in **Reinsurers' share of best estimate of provisions for insurance liabilities** by USD 3.7 billion from USD 17.6 billion in December 31, 2018 to USD 21.2 billion in December 31, 2019. The increase is mainly in the non-life business with an increase of USD 2.3 billion.

- Direct insurance: non-life insurance business increased by USD 2.1 billion from USD 7.5 billion in December 31, 2018 to USD 9.6 billion in December 31, 2019 of which USD 1.6 billion relates to the UK Employers Liability loss portfolio transfer and the Germany Architects & Engineers portfolios where 100% Quota Share reinsurance has been purchased from external reinsurers pending completion of the transfers. These reinsurance covers were not in place in 2018.
- Direct insurance: life insurance business (excluding unit linked life insurance) increased by USD 1.3 billion from USD 4.9 billion in December 31, 2018 to USD 6.2 billion in December 31, 2019 as a result of acquisition of OnePath of USD 1.1 billion and strengthening of reserve assumptions in Australia of USD 0.3 billion.
- Reinsurance: non-life insurance business increased by USD 0.2 billion from USD 4.9 billion in December 31, 2018 to USD 5.1 billion in December 31, 2019 mostly due to the purchase of reinsurance in the US for the Accident, Pollution and Health Hazard portfolio related to 1986 and prior years.

Fixed assets increased by USD 1.5 billion from USD 1.5 billion as of December 31, 2018 to USD 3 billion as of December 31, 2019. The increase is largely due to the establishment of a right-of-use asset upon the adoption of IFRS 16 which introduces new requirements for lease accounting for contracts where the Group acts as lessee and intermediate lessor.

Other assets increased by USD 0.6 billion from USD 0.7 billion as of December 31, 2018 to USD 1.3 billion as of December 31, 2019. The increase is mainly due to the acquistion of Adira Insurance, which was completed in November 2019.

Other receivables increased by USD 0.4 billion from USD 3.6 billion as of December 31, 2018 to USD 4 billion as of December 31, 2019 mostly due to an increase of USD 0.2 billion in current income tax receivables and USD 0.2 billion in other receivables, partially offset by a decrease of USD 0.1 billion in amount due from investment brokers and exchanges.

Receivables from derivative financial instruments increased by USD 0.3 billion from USD 0.9 billion as of December 31, 2018 to USD 1.2 billion as of December 31, 2019, mainly driven by decreasing interest rates in Europe. The most notable impact is observed in Switzerland in the amount of USD 0.1 billion.

Accrued assets increased by USD 0.1 billion from USD 3.2 billion as of December 31, 2018 to USD 3.3 billion as of December 31, 2019 mainly due to increase in other prepaid expenses and in other accrued income.

E.2.2 Evolution of liabilities since 2018

Best estimate of provisions for insurance liabilities

The market value best estimate of provisions for insurance liabilities increased by USD 8.3 billion from USD 162.8 billion as of December 31, 2018 to USD 171.1 billion as of December 31, 2019.

Direct insurance: life insurance business (excluding unit linked life insurance) increased by USD 7.2 billion from USD 94.7 billion in December 31, 2018 to USD 101.9 billion in December 31, 2019.

The increase is mainly due to:

- Italy (USD 2.1 billion), driven by lower Italian credit spreads, resulting in higher segregated fund projected returns, combined with new business volumes mainly on a new single premium product which offers a limited guarantee in case of lapse;
- Germany (USD 2.5 billion), mostly from increased reserves for Policyholder dividends due to unrealised capital gains;
- OnePath which resulted in an increase of USD 1.6 billion
- Chile (USD 0.8 billion) and Switzerland (USD 0.6 billion), mainly due to changes in interest rates; and
- UK (USD 0.6 billion) from an assumptions review and change in interest rates.

E. Valuation *continued*

These increases were partially offset by methodology changes as agreed with FINMA, which resulted in a decline of USD 1.9 billion. The exclusion of future discretionary benefits from insurance liabilities resulted in a decrease of USD 2.6 billion, mainly in Germany of USD 1.2 billion and in Switzerland of USD 1.1 billion. The adoption of the Standard Model approach for valuing Swiss BVG business resulted in USD 0.2 billion deduction, partially offset by USD 0.8 billion increase due to the exclusion of expected renewals from the valuation of SST liabilities for Corporate Life and Pensions business mainly in the UK of USD 0.4 billion and in Switzerland of USD 0.2 billion.

Reinsurance: life insurance business (excluding unit linked life insurance) increased by USD 1.3 billion from USD 0.7 billion in December 31, 2018 to USD 2.0 billion in December 31, 2019 mainly due to the acquisition of OnePath.

Direct insurance: non-life insurance business decreased by USD 0.2 billion from USD 63.2 billion in December 31, 2018 to USD 63.0 billion in December 31, 2019 where the main drivers are the following:

- An adjustment of USD 0.9 billion to reflect the net future cash flows for Japan Personal Accident multi-year business
- A decrease of the undiscounted reserves mainly in North America,
- An increase of the discounted reserves due to falling yields.

Reinsurance: non-life insurance business decreased by USD 0.1 billion from USD 3.7 billion in December 31, 2018 to USD 3.6 billion in December 31, 2019 mainly due to the run-off of the assumed business from Farmers Exchanges[1].

Best estimate of provisions for unit-linked life insurance liabilities

Direct insurance: unit-linked life insurance business decreased by USD 6.8 from USD 129.5 billion in December 31, 2018 to USD 122.7 billion in December 31, 2019. The decrease is mainly driven by the completion of the sale of the UK workplace pensions and savings business of USD 20.4 billion partially offset by favorable market movements and new business in Ireland of USD 3.4 billion, strong fund performance in Germany of USD 3.0 billion and in Isle of Man of USD 1.8 billion. Additionally, new business growth in Brazil Santander of USD 1.9 billion, in Italy of USD 1.1 billion and market movements in the US of USD 1.0 billion.

Total other liabilities

The market-consistent value of other liabilities has increased by USD 4.3 billion from USD 33.8 billion as of December 31, 2018 to USD 38.1 billion as of December 31, 2019.

Other liabilities increased by USD 2.6 billion from USD 9.0 billion in December 31, 2018 to USD 11.6 billion in December 31, 2019. The adoption of IFRS 16 introduced new requirements for lease accounting, resulting in an increase of Lease liabilities of USD 2.0 billion. Additionally, there was a USD 0.4 billion increase in Collateral obligations from derivative trading. Non-controlling interests increased by USD 0.3 billion from USD 1.9 billion in December 31, 2018 to USD 2.2 billion in December 31, 2019 mainly in Brazil by USD 0.2 billion and in Mexico by USD 0.2 billion. The increases were partially offset with a decrease in Germany in the amount of USD 0.1 billion in relation to sale of ADAC and by a drop in Obligations to repurchase securities of USD 0.4 billion from USD 1.4 billion in 2018 to USD 1.0 billion in 2019 mainly in the UK.

Subordinated debts increased by USD 0.8 billion from USD 6.9 billion in December 31, 2018 to USD 7.7 billion in December 31, 2019 due to issuance of new debt of USD 0.7 billion in Switzerland.

Deposit retained on ceded reinsurance increased by USD 0.5 billion from USD 0.4 billion in December 31, 2018 to USD 0.9 billion in December 31, 2019 of which is mainly due to a new retroactive reinsurance agreement by Group Centre Holdings.

Liabilities from insurance business increased by USD 0.4 billion from USD 3.6 billion in December 31, 2018 to USD 4.0 billion in December 31, 2019 driven by the acquisition of OnePath.

These increases were offset by a decrease in Interest-bearing liabilities of USD 0.3 billion from USD 6.0 billion in 2018 to USD 5.6 billion in 2019 mainly due to a drop in overdraft.

[1] The Farmers Exchanges are owned by their policyholders. Farmers Group, Inc, a wholly-owned subsidiary of the Group, provides certain non-claims services and ancillary services to the Farmers Exchanges as attorney-in-fact and receives fees for its services.

E.2.3 Changes in MCBS valuation methodology

The implementation of FINMA circular 2017/3, IAS 29 Financial Reporting in Hyperinflationary Economies and IFRS 16 Leases in Group IFRS financial statements resulted in the following changes to MCBS:

- For non-life multi-year contracts, the unearned premium reserve is adjusted to reflect discounted future cash flows from premiums not yet invoiced;
- The valuation of best estimate life investment and insurance liabilities for Corporate Life and Pension business covering Group Protection and Group savings/pensions (Group Life business) excludes future renewals. Further, the best estimate life investment and insurance liabilities excludes non-contractually guaranteed/ discretionary distributions expected to be awarded to policyholders in excess of those contractually specified or legally required;
- Real estate, equipment and vehicle leases where the Group acts as a lessee are recognized on balance sheet as right-of use assets and lease liabilities measured using valuation principles further described below; and
- The carrying value of property, plant and equipment in Argentina is adjusted to reflect the effects of hyperinflation.

E.2.4 Market-consistent value of assets

Market-consistent value of investments

Under IFRS, investments are measured at fair value, amortized cost or using the equity method. In addition, IFRS requires fair value disclosures for financial assets that are not measured at fair value. The MCBS value of investments reflects fair value determined in accordance with the overarching valuation principles outlined in section E.1.

SST – IFRS valuation difference

in USD millions, as of December 31, 2019

Total IFRS value of investments		**193,312**
Fixed income securities	Bonds held-to-maturity measured at fair value in MCBS.	640
	The reclassification to held for sale is not applicable in MCBS.	12
Mortgages	Mortgage loans measured at fair value in MCBS.	415
Loans	Other loans measured at fair value in MCBS.	1,617
Total market-consistent value of Investments (SST)		**195,996**

Market-consistent value of financial investments from unit-linked life insurance

The investments for unit-linked insurance are measured at fair value under both IFRS and MCBS. Therefore, no measurement difference arises in MCBS.

Market-consistent value of reinsurers' share of best estimate of provisions for insurance liabilities

Similar to IFRS, the calculation of the best estimate for reinsurance assets and insurance liabilities is performed on a gross basis in MCBS (i.e., no offsetting of assets with liabilities). However, the MCBS valuation is based on the actuarial discounted best estimate of future cash flows, taking into account the lifetime expected credit losses. The calculation of the expected credit loss allowance considers the rating of the reinsurance counterparty, the expected timing of future recoveries and the expected value of any collateral held.

Reinsurers' share of best estimate unearned premium reserve

Under IFRS, the reinsurers' share of unearned premium reserve (UPR) represents the portion of the ceded premiums related to the unexpired coverage period. Under MCBS, the ceded UPR shall only reflect a market-consistent value for future claims recoveries. The illustration below provides the breakdown of ceded UPR where ceded IFRS UPR reflects the premium paid (less commission received) for the remaining bound period and the adjustments performed to arrive at the MCBS value for ceded UPR.

Reinsurers' share of property and casualty loss reserves

Under IFRS, reinsurance assets for ceded loss reserves are already held at best estimate (i.e., sum of all expected future recoveries), but generally not discounted. To make these assets market-consistent, the future cash flows are discounted while taking into account the timing of these future cash flows and expected credit losses.

E. Valuation *continued*

Reinsurers' share of life benefits

In order to determine the SST MCBS value of best estimate ceded reserves of life insurance and investment contracts, the following generally applies:

- The best estimate of future cash flows is based on the principles discussed in the 'best estimate of life investment and insurance liabilities' section;
- The SST MCBS value for ceded reserves only reflects the market-consistent value for future claims recoveries, i.e., only present value of future cash flows to be reimbursed by the reinsurer; and
- If the reinsurer's credit risk is not included in the best-estimate future cash flows, the expected credit loss allowance is considered.

SST – IFRS valuation difference

in USD millions, as of December 31, 2019

Total Best estimate of Reinsurers' share of best estimate of insurance liabilities (IFRS)		**22,752**
Reinsurers' share of best estimate of insurance liabilities unit-linked life insurance business	Valuation differences.	(3,514)
	The reclassification to held for sale is not applicable in MCBS.	1,989
Total Best estimate of Reinsurers' share of best estimate of insurance liabilities (SST)		**21,227**

Market-consistent value of other assets

Under IFRS, other assets include deferred acquisition costs (DAC), deferred tax assets, goodwill and other intangible assets, which are valued at zero in the MCBS. Real estate held for own use is measured at cost less depreciation and impairment, whereas the MCBS value reflects fair value. Right-of use assets are reported at IFRS carrying value (i.e. cost less depreciation and impairment) provided this is a reasonable proxy for fair value. Otherwise, if there is a major change in the market prices for comparable leases observed since inception, the MCBS value is determined considering current rental prices for comparable property and current interest rates for high-quality corporate bonds.

Cash and cash equivalents are presented at IFRS carrying value because such balances are current and solely held for the purpose of meeting short-term (operational) cash commitments.

Deposits made under assumed reinsurance contracts, receivables from insurance business and other receivables are valued at the IFRS carrying value, provided this is a reasonable proxy for fair value (i.e., the balances are subject to only insignificant risk of changes in value and settlement is expected to occur generally within three months and no more than twelve months). In this case, the IFRS carrying value is reported net of credit impairment allowance. Otherwise, the value is based on fair value (including credit risk) using the IFRS valuation principles.

Derivative financial instruments are measured at fair value under both IFRS and MCBS.

The reclassification of assets for USD 2.0 billion to the held for sale category under IFRS is not applicable in MCBS.

SST – IFRS valuation difference

in USD millions, as of December 31, 2019

Total IFRS value of other assets (excluding Financial investments from unit-linked life insurance & Reinsurers' share of best estimate of provisions for insurance liabilities)		**62,223**
Other assets	Deferred acquisition costs: Value set to zero in MCBS.	(19,200)
	Deferred origination costs: Value set to zero in MCBS.	(400)
	Deferred tax assets: Value set to zero in MCBS.	(1,151)
	Goodwill and other intangible assets: Value set to zero in MCBS.	(8,968)
	Valuation differences of Deposits made under assumed reins. Contracts	57
	Valuation differences of Receivables	152
	Property and equipment: Real estate held for own use is at fair value in MCBS.	373
	The reclassification to held for sale is not applicable in MCBS.	(2,001)
	Other	(10)
Total market-consistent value of other assets (SST) (excluding Financial investments from unit-linked life insurance & Reinsurers' share of best estimate of provisions for insurance liabilities)		**31,073**

E.2.5 Market-consistent value of liabilities

Best estimate of insurance liabilities

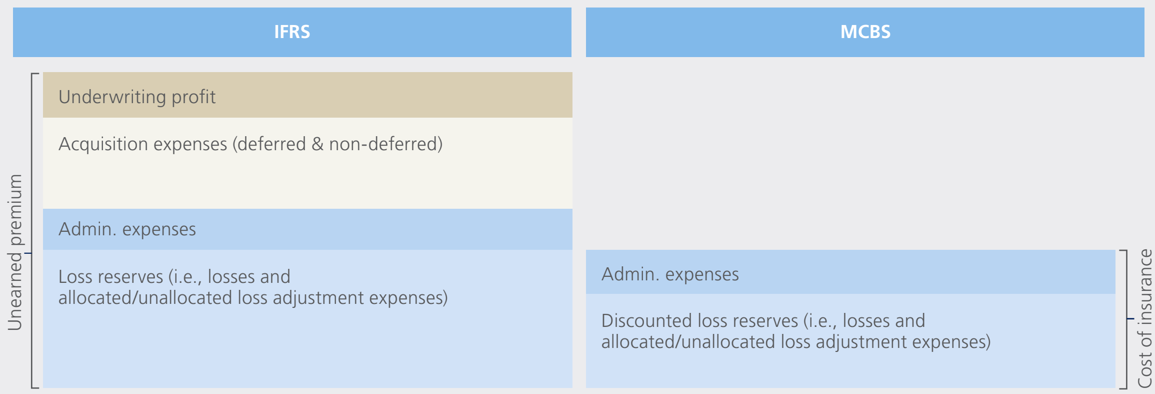
Best estimate of unearned premium reserves

Under IFRS, the unearned premium reserve (UPR) represents the portion of the premiums written related to the unexpired coverage period. The UPR typically relates to one year of premiums invoiced, which is also the case for multi-year contracts where only the first year is recognized and not the entire contractual future premium volume due in future periods. This reserve covers expected future losses, loss adjustment and policy administration expenses as well as underwriting profits for contracts in force. To arrive at the MCBS value for UPR, the following adjustments are made:

- Expected future losses (including loss adjustment expenses) are discounted;
- Underwriting profits are not included, as these do not represent future cash flows; and
- Future administration expenses only encompass the estimated costs to administer and maintain the insurance policy over the remaining coverage period. Consequently, any deferred or non-deferred acquisition-related costs (such as commissions, sales and distribution management, underwriting, risk engineering, and marketing costs) are excluded. Further, claims settlements costs are not included in administration expenses as such costs are typically part of future losses. Similarly, amortization of DAC and intangible assets is not included because DAC and intangible assets are set to zero in MCBS.

The illustration below provides the breakdown of the UPR where IFRS UPR reflects the unearned premium for the remaining bound period and the adjustments performed to arrive at the MCBS value for UPR:

Illustrative breakdown of Unearned Premium Reserve (UPR)



For multi-year contracts, the determination of the best estimate of UPR requires an additional adjustment to reflect the net present value of the future cash flows from the bound multi-year contracts. The adjustment is determined using as a volume metric all unearned premiums (invoiced and not invoiced) with the best estimate of cost of insurance discounted using a discount factor reflective of the expected cash flows over the duration of the underlying insurance contracts and the discounted future premium not yet invoiced less attributable future acquisition expenses included as an inflow.

Best estimate of loss reserves

Reserves for losses under IFRS represent estimates of future payments of reported and unreported claims for losses and related expenses, with respect to insured events that have occurred. Such reserves are not discounted, except reserves for claims with payment patterns that are fixed and reasonably determinable. Reserves are held at best estimate including recoverable for salvage and subrogation, supplemented by a provision for model and parameter uncertainty under IFRS.

In order to derive a market-consistent value, best estimate loss reserves are discounted using a risk-free rates whereby the cash-flow pattern (i.e., timing of the estimated future cash flows) is adequately considered. In cases where the reserves are already presented on a discounted basis under IFRS (e.g., non-life annuities), the discounting is reversed and re-performed using the risk-free rates.

E. Valuation *continued*

SST – IFRS valuation difference

in USD millions, as of December 31, 2019

Total Best estimate of non-Life insurance liabilities (IFRS)		**(76,718)**
Non-Life insurance liabilities	Valuation differences.	12,127
	The reclassification to held for sale is not applicable in MCBS.	(1,989)
Total Best estimate of non-Life insurance liabilities (SST)		**(66,580)**

Best estimate of life investment and insurance liabilities

Generally, the SST MCBS value of all unit-linked and non-unit-linked investments, as well as life insurance liabilities, is based on a bottom-up best estimate projection of future cash flows excluding any expected non-guaranteed surpluses or discretionary benefits. Any options and guarantees provided to the policyholder are valued on a market-consistent basis. Specifically, cash flow projections are made over the estimated contract period for the in-force portfolio (i.e., current policyholder base at valuation date) subject to the contractual contract boundary and in line with the principles for best estimate:

- Economic assumptions: expected asset return, discount rate, and inflation rate, stochastic economic simulations;
- Non-economic assumptions: demographic assumptions (mortality, morbidity), persistency, expense assumptions and dynamic bonus rates/profit sharing rates (where legally or contractually obligated).

Cash flow projections may vary, depending on the product. Contractually guaranteed benefits to be paid to policyholders – whether on surrender, maturity, death, morbidity or disability – increase the best estimate of life investment and insurance liabilities, as do taxes paid on behalf of policyholders, maintenance expenses and future commissions. Projected future premiums, fees and charges expected to be received from policyholders for existing business reduce the best estimate of life investment and insurance liabilities.

Best estimate of life insurance liabilities can be negative, for example, in protection business where projected regular premiums may often exceed expected death benefits and expenses on a best-estimate basis. Because the own fulfilment value of an insurance or reinsurance obligation may be lower than the surrender values of the underlying contracts, no implicit or explicit surrender value floor is assumed for the market-consistent value.

Realistic assumptions about management's behavior are used, e.g., assuming management discretion when capital gains on invested assets are realized or changes in asset allocation are made. In cases where management actions, as considered in the scenario modelling, would be subject to regulatory approval (e.g., potential cancellation of policyholder dividends), the assumptions used when interpreting local supervisory guidance are verified by the local regulator or external audit.

SST – IFRS valuation difference

in USD millions, as of December 31, 2019

Total Best estimate of life insurance liabilities (IFRS)		**(244,678)**
Life insurance liabilities	Valuation differences.	14,070
Direct insurance: unit-linked life insurance business	Valuation differences.	3,906
Total Best estimate of life insurance liabilities (SST)		**(226,702)**

Best estimate of provisions for other business

The difference between IFRS and MCBS is explained by the liability reflecting the negative value of the insurance business acquired reported under IFRS which is valued at zero in the MCBS, similar to other intangible assets recognized as part of a business combination.

Market-consistent value of other liabilities

Interest-bearing liabilities are measured in the MCBS based on risk-free rates where the future cash flows are considered over the remaining period until the earliest contractual redemption date. In case where a quoted market price is available and used, the market price is adjusted to eliminate own credit spread. Accrued interests on interest bearing liabilities are reported as a separate position in the MCBS.

Subordinated debt instruments eligible as supplementary capital under SST are measured at market-consistent value using the IFRS valuation principles. In case where a quoted market price is available and used, the market price is not adjusted to eliminate own credit spread. The accrued interest is not reported separately and is included in the MCBS carrying value.

Other liabilities include deferred front-end fees and deferred taxes (other than deferred tax on Swiss real estate transfers attributable to shareholders) that are valued at zero in the MCBS.

The market-consistent valuation of non-controlling interests is determined based on the MCBS of the underlying entities and presented separately as a liability position.

Non-technical provisions include liabilities for defined benefit pension plans measured using actuarial techniques under IFRS. Such liabilities are held at the IFRS carrying value in the MCBS.

Other non-technical provisions are held at best estimate under IFRS. To the extent such provisions are discounted, the market-consistent value is calculated by reversing the discounting effect and re-performing discounting using risk-free rates.

Lease liabilities are measured as the present value of future lease payments for the remaining lease term, discounted at risk-free rates without consideration of own credit risk.

Derivative financial instruments are measured at fair value under both IFRS and MCBS.

Obligation to repurchase securities, deposits retained on ceded reinsurance and liabilities from the insurance business are valued at IFRS carrying value as the balances are expected to be subject to only insignificant risk of changes in value and settled within a relatively short time frame (generally, within three months and under no circumstances exceeding twelve months). Otherwise, the MCBS value is based on fair value (excluding credit risk) using the IFRS principles.

The market-consistent value of other liabilities is generally determined using IFRS carrying value in accordance with the overarching valuation principles outlined in section E.1.

The reclassification of liabilities for USD 2.0 billion as held for sale under IFRS is not applicable in MCBS.

SST – IFRS valuation difference

in USD millions, as of December 31, 2019

Total IFRS value of other liabilities		**(47,728)**
Interest bearing liabilities	Valuation differences	(429)
Deposit liabilities from ceded reinsurance	Valuation differences	82
Subordinated liabilities	Valuation differences	(829)
Other Liabilities:	Non-controlling interest	(696)
	The reclassification to held for sale is not applicable in MCBS.	1,989
	Lease liabilities	140
Accrued liabilities	Deferred taxes (other than deferred tax on Swiss real estate transfers attributable to shareholders): Valued set to zero in MCBS.	4,049
	Deferred gains: Value set to zero in MCBS.	65
	Deferred front-end fees: Value set to zero in MCBS.	5,173
	Accrued interest	120
Other		10
Total market-consistent value of other liabilities (SST)		**(38,055)**

E. Valuation *continued*

E.2.6 Other information

In accordance with industry practice, the Group's internal valuation models use swap rates for liability discounting. Swap curves are also used in the SST MCBS and target capital as the risk-free rates for Zurich in line with the possibility of using 'own yield curves' in the SST according to paragraph 46 of FINMA Circular 2017/3.

Methodology for Zurich's curves derivation

The tables below give an overview of the yield curve methodology used in Zurich's SST internal model for both available financial resources and the target capital. These yield curves are consistently used in the Z-ECM.

Zurich risk-free yield curve methodology for January 1, 2020 SST and Z-ECM

Currency	Entry point to extrapolation (years)	Market data	Method of interpolation	Method of extrapolation	Ultimate forward rate (annually compounded)	Smith Wilson alpha
EUR	50	Raw market mid-swap rates from Bloomberg	Smith Wilson giving smooth forward and spot curves passing exactly through market data		0.53% (50-year market spot rate)	0.2
USD	50				1.98% (50-year market spot rate)	0.2
GBP	50				1.03% (50-year market spot rate)	0.2
CHF	30				0.21% (30-year market spot rate)	0.2

F. Capital management

F.1 Capital management objectives

The Group manages capital to maximize long-term shareholder value while maintaining financial strength within its 'AA' target range, and meeting regulatory, solvency and rating agency requirements.

As of December 31, 2019, shareholders' equity of USD 35.0 billion, subordinated debt of USD 6.9 billion and senior financial debt of USD 3.2 billion, excluding net new issued senior debt since the second quarter of 2018, were part of the capital available in the Group's economic framework. Further adjustments usually include items such as intangible assets, deferred tax assets and liabilities, allowing for discounting of liabilities and the value of in-force business, or inclusion of market value margin and expected profit over the next 12 months. For more information, see analysis of the 'Group's Z-ECM available financial resources' (unaudited).

Zurich strives to simplify the Group's legal entity structure to reduce complexity and increase fungibility of capital.

F.2 Capital structure

Share capital
As of December 31, 2019, the ordinary share capital of Zurich Insurance Group Ltd amounted to CHF 14,960,803 divided into 149,608,027 fully paid registered shares with a nominal value of CHF 0.10 each. Following the approval of shareholders, as from April 7, 2020 the dividend of CHF 20 per share was paid out of the available earnings with a deduction of 35 percent Swiss withholding tax.

Authorized and contingent share capital as of December 31, 2019
Up to and including April 4, 2020, the Board of Zurich Insurance Group Ltd is authorized to increase the share capital by an amount not exceeding CHF 4,500,000 by issuing up to 45,000,000 fully paid registered shares with a nominal value of CHF 0.10 each (Art. 5bis). This authorized share capital corresponds to about 30 percent of the total registered shares issued as of December 31, 2019. Share issuances from authorized share capital where the shareholders' subscription rights are restricted or excluded are limited to 15,000,000 shares (i.e., about 10 percent of the total registered shares issued as of December 31, 2019).

The share capital of Zurich Insurance Group Ltd may be increased by an amount not exceeding CHF 3,000,000 by issuing of up to 30,000,000 fully paid registered shares with a nominal value of CHF 0.10 each by the voluntary or mandatory exercise of conversion and/or option rights, which are granted in connection with the issuance of loans, bonds, similar debt instruments, equity-linked instruments or other financial market instruments (collectively, the 'financial instruments') by Zurich Insurance Group Ltd or one of its Group companies, or by mandatory conversion of financial instruments issued by Zurich Insurance Group Ltd or one of its Group companies, that allow for contingent mandatory conversion into shares of Zurich Insurance Group Ltd, or by exercising option rights which are granted to the shareholders (Art. 5ter 1a). This contingent share capital corresponds to about 20 percent of the total registered shares issued as of December 31, 2019.

Up to and including April 4, 2020, the total number of new shares which could be issued from (i) authorized share capital under Art. 5bis where the subscription rights are restricted or excluded and (ii) contingent share capital in connection with financial instruments under Art. 5ter 1a where the advance subscription rights are restricted or excluded is limited to 30,000,000 shares (i.e., about 20 percent of the total registered shares issued as of December 31, 2019).

Moreover, there is an additional contingent share capital (Art. 5ter 2a) of CHF 494,723.20, representing 4,947,232 fully paid registered shares with a nominal value of CHF 0.10 each, which may be issued to employees of Zurich Insurance Group Ltd or one of its Group companies. For further information on the capital structure and the authorized and contingent share capital, see the audited consolidated financial statements, note 19 on pages 239 to 241. This contingent share capital compares to about 3.3 percent of the current total registered shares issued as of December 31, 2019.

For further information please see Article 5bis and 5ter of the Articles of Association, as published under the following link: www.zurich.com/IR-articles-of-association.

F. Capital management *continued*

Changes to share capital during 2019

During 2019, no shares were issued from authorized or contingent share capital. As a result, on December 31, 2019, the share capital amounted to CHF 14,960,802.70 (149,608,027 shares). The authorized share capital (Art. 5bis 1) amounted to CHF 4,500,000 (45,000,000 shares). The contingent share capital for financial instruments (Art. 5ter 1a) amounted to CHF 3,000,000 (30,000,000 shares) and the contingent share capital for employees (Art. 5ter 2a) amounted to CHF 494,723.20 (4,947,232 shares).

On April 3, 2019, the Annual General Meeting approved the reduction of the ordinary share capital of the Company by CHF 174,000 (1,740,000 shares) from CHF 15,134,802.70 (151,348,027) to CHF 14,960,803 (149,608,027 shares) in conclusion of the public share buy-back program for 1,740,000 of Zurich Insurance Group Ltd's own shares launched in 2018. The capital reduction was executed by the Board of Directors and filed with the Commercial Register of the Canton of Zurich subsequent to the required publications of the notice to creditors. The capital reduction was reduced in the share register effective as of June 21, 2019.

Convertible bonds and options

Zurich Insurance Group Ltd had no public convertibles or options outstanding as of December 31, 2019. For information on employee share plans, see the audited consolidated financial statements, note 21 on pages 250 to 251.

The Group's share-based compensation programs include regulations regarding the impact of a change of control. These regulations provide that in the case of a change of control, the plan administrator (the Remuneration Committee or the Group CEO, as applicable) has the right to roll over the existing share obligations into new share rights or to provide consideration for such obligations that are not rolled over. Participants who lose their employment as a result of a change of control have the right to the vesting of share obligations. No other benefits are provided to members of the ExCo in case of a change of control. No benefits are provided for the members of the Board in case of a change of control.

F.3 Capital management framework

The Group's capital management framework forms the basis for actively managing capital within Zurich. The Group uses different capital models, taking into account economic, regulatory, and rating agency constraints. The Group's capital and solvency position is monitored and regularly reported to the Executive Committee (ExCo).

Zurich's policy is to allocate capital to businesses earning the highest risk-adjusted returns, and to pool risks and capital as much as possible to operationalize its risk diversification.

The Group's executive management determines the capital management strategy and sets the principles, standards and policies to execute the strategy. Group Treasury and Capital Management executes the strategy.

F.4 Capital management program

The Group's capital management program comprises various actions to optimize shareholders' total return and to meet capital needs, while enabling Zurich to take advantage of growth opportunities. Such actions include paying and receiving dividends, capital repayments, share buy-backs, issuance of shares, issuance of senior and hybrid debt, securitization and purchase of reinsurance.

The Group seeks to maintain a balance between higher returns for shareholders on equity held, and the security a sound capital position provides. Dividends, share buy-backs, and issuances and redemption of debt have a significant influence on capital levels. In 2019, the Group paid a dividend out of retained earnings, bought own shares to avoid dilution from share-based employee plans and cancelled shares bought back in 2018 through the public share buy-back program, issued senior debt to finance redemptions and investments in the Group's development, and called hybrid debt that was re-financed during 2019.

The Swiss Code of Obligations stipulates that dividends may only be paid out of freely distributable reserves or retained earnings. Apart from what is specified by the Swiss Code of Obligations, Zurich Insurance Group Ltd faces no legal restrictions on dividends it may pay to its shareholders. As of December 31, 2019, the amount of the statutory general legal reserve was more than 30 times the paid-in share capital. The ability of the Group's subsidiaries to pay dividends may be restricted or indirectly influenced by minimum capital and solvency requirements imposed by insurance and other regulators in the countries in which the subsidiaries operate. Other limitations or considerations include foreign exchange control restrictions in some countries, and rating agencies' methodologies.

For details on issuances and redemptions of debt, see note 18 of the consolidated financial statements in the Annual Report 2019.

For details on the share repurchase program, see note 19 of the consolidated financial statements in the Annual Report 2019.

F.5 Economic capital adequacy and overall risk appetite and tolerance

Internally, the Group uses its Zurich Economic Capital Model (Z-ECM) for assessing its economic capital adequacy. Z-ECM targets a total capital level that is calibrated to an 'AA' financial strength. Zurich defines the Z-ECM capital requirement as the capital required to protect the Group's policy-holders in order to meet all of their claims with a confidence level of 99.95 percent over a one-year time horizon.

The Group uses Z-ECM to assess the economic capital consumption of its business on a one-balance-sheet approach. Z-ECM is an integral part of how the Group is managed. It is embedded in the Group's organization and decision-making processes, and is used in capital allocation, business performance management, pricing, and communication. Z-ECM quantifies the capital required for insurance-related risk (including premium and reserve, natural catastrophe, business and life insurance risk), market risk including investment credit risk, reinsurance credit risk, other credit risk, and operational risk.

At the Group level, Zurich compares Z-ECM capital required to the Z-ECM available financial resources (AFR) to derive an economic solvency ratio (Z-ECM ratio). Z-ECM AFR reflects financial resources available to cover policyholder liabilities in excess of their expected value. It is derived by adjusting the IFRS shareholders' equity to reflect the full economic capital base available to policyholders to absorb any unexpected volatility in the Group's business activities.

The Group's risk appetite and tolerance reflects Zurich's willingness and capacity to take risks in pursuit of value, and sets boundaries within which the businesses act. By monitoring that risks are taken within agreed risk appetite levels and tolerance limits, Zurich protects its capital, liquidity, earnings and reputation. The Group regularly assesses and, as far as possible, quantifies material risks to which it is exposed.

Zurich's goal is to maintain capital consistent with a 'AA' financial strength rating for the Group. The Group translates that goal into a quantified risk tolerance. The primary metric used to steer business is the Zurich Economic Capital Model (Z-ECM) which provides a key input into the Group's planning process as an assessment of the Group's risk profile against the Group's risk tolerance. The Z-ECM forms the basis for optimizing the Group's risk-return profile by providing consistent risk measurement across the Group.

Group's Z-ECM overall risk appetite and tolerance

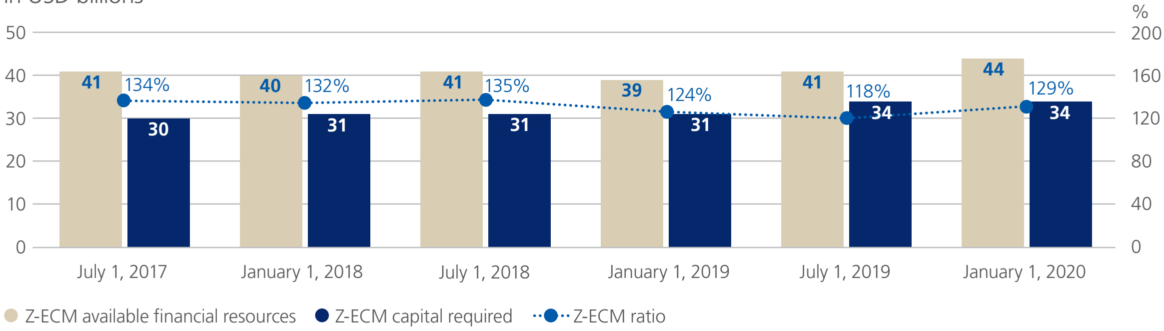
<90%	90–100%	100–120%	120–140%	>140%
Z-ECM ratio below Group risk tolerance level, requiring appropriate remedial actions	Position may be tolerated for a certain length of time depending on the risk environment	'AA' target range No action required as within stated objective and equivalent to 'AA' rating	Consider increased risk-taking or remedial actions	Z-ECM ratio indicating over-capitalization, requiring implementation of mitigating actions

Z-ECM ratio

F. Capital management *continued*

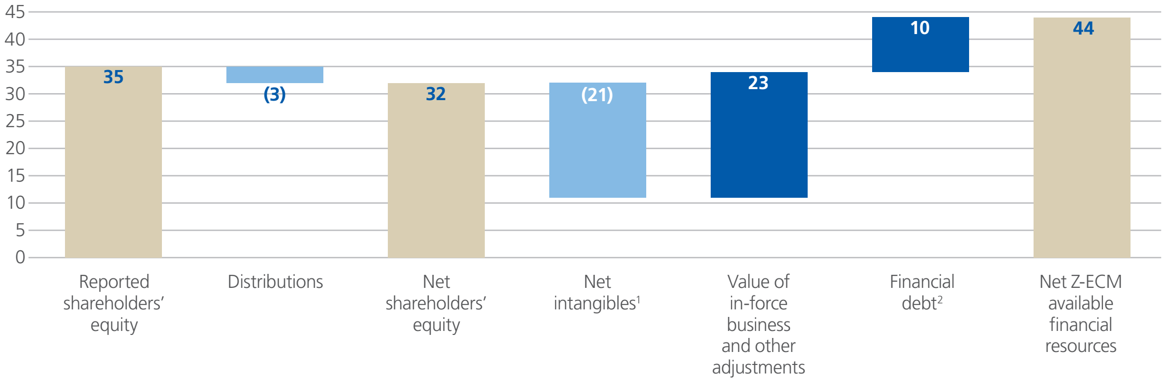
The chart below shows the development of the Group's Z-ECM AFR, Z-ECM capital required and Z-ECM ratio over time. As of January 1, 2020, the Z-ECM ratio was at 129% with an error margin of +/–5 percentage points.

Analysis of the Group's Z-ECM available financial resources and Z-ECM capital required
in USD billions



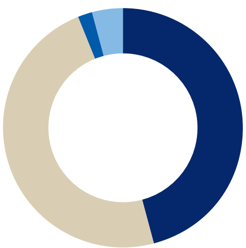
The chart below shows an analysis of the composition of the Group's Z-ECM available financial resources as of January 1, 2020.

Analysis of the Group's Z-ECM available financial resources
in USD billions, as of January 1, 2020



[1] Shareholders' intangible assets including deferred tax assets less deferred front-end fees and deferred tax liabilities.
[2] All external debt issues (senior and subordinated) excluding net new issuances of senior debt issued after June 30, 2018 and debt classified as operational debt.

Total Z-ECM capital required: USD 34.5 billion
%, as of January 1, 2020



Insurance risk	46%
Market risk, including investment credit risk	48%
Other credit risk	2%
Operational risk	4%

F.6 Insurance financial strength rating

The Group has interactive relationships with three global rating agencies: S&P Global Ratings, Moody's, and AM Best. The insurance financial strength rating (IFSR) of the Group's main operating entity, Zurich Insurance Company Ltd, is an important element of Zurich's competitive position, particularly for the commercial customer segment. The Group's credit ratings derived from the financial strength ratings also affect the cost of capital.

On October 29, 2019, S&P Global Ratings revised to positive from stable the outlook of Zurich Insurance Company Ltd and its core subsidiaries and affirmed the 'AA–' long-term insurer financial strength and issuer credit ratings. This rating action is based on S&P Global Ratings increased confidence "in the strength and resilience of Zurich's profitability and business risk profile, relative to peers, and the sustainability of the Group's very strong capital adequacy."

As of December 31, 2019, the IFSR of Zurich Insurance Company Ltd, the main operating entity of the Group, was 'AA–/Positive' by S&P Global Ratings, 'Aa3/Stable' by Moody's, and 'A+ (Superior)/Stable' by A.M. Best.

F.7 Regulatory capital adequacy

The Group endeavors to manage its capital so that its regulated entities meet local regulatory capital requirements. In each country in which the Group operates, the local regulator specifies the minimum amount and type of capital that each of the regulated entities must hold in addition to their liabilities. In addition to the minimum capital required to comply with the solvency requirements, the Group aims to hold an adequate buffer under local solvency requirements to ensure regulated subsidiaries can absorb volatility and meet local capital requirements.

Regulatory requirements in Switzerland

Under the Swiss Solvency Test (SST), insurance companies and insurance groups can apply to use company-specific internal models to calculate risk-bearing and target capital, as well as the SST ratio. The SST ratio must be calculated as per January 1 and must be submitted to the Swiss Financial Market Supervisory Authority (FINMA). Zurich filed with FINMA an SST ratio of 198 percent (unaudited) as of January 1, 2020.

In 2019, Zurich continued to enhance its internal model, completed the approval process with FINMA, and received approval for the outstanding modules of its internal model. Accordingly, the Group's SST Internal Model is now fully approved.

F. Capital management *continued*

F.8 Z-ECM and SST

The SST model and the internal Z-ECM model are based on the same fundamentals and are largely aligned; the main differences are:

- Z-ECM assesses the solvency position for rarer extreme scenarios by using a different risk measure (value-at-risk 99.95 percent) compared to SST (expected shortfall 99 percent)
- Z-ECM includes operational risk losses, which is not required under the SST framework
- Z-ECM accounts senior debt as available capital
- Z-ECM reflects the risk from a management perspective, while the SST calculation follows the legal structure of the Group.
- Z-ECM is calculated on a going-concern basis, while the SST calculation follows the regulatory run-off view.

Differences are highlighted in the following table and graph.

Main differences between Z-ECM and SST

	Z-ECM	SST
Solvency ratio components	Available financial resources (AFR) less risk margin, over risk-based capital	Risk-bearing capital minus risk margin, over target capital minus risk margin
Risk measure	Value-at-Risk 99.95% (~AA)	Expected shortfall 99%
Differences in risk-types coverage	Additional risk types compared to SST • P&C Expense Risk • Operational Risk	Additional risk types compared to Z-ECM • Unearned premium reserves (UPR) risk
Senior debt	Valued as available capital	Valued as liability
Granularity	Management view • Internal reinsurance not relevant • Full Group diversification (i.e., both across risk types and legal entities) taken into account and allocated back to business units	Legal entity view • Internal reinsurance considered • Only diversification within legal entity taken into account • Risk of subsidiaries included (with limited liability)
Perspective	Going-concern view	Run-off view

G. Solvency

The Swiss Solvency Test (SST) is a principle-based, risk-sensitive supervision framework reflecting:

- A market-consistent view of the financial resources available to meet policyholder obligations – referred to as risk-bearing capital.
- A view of the impact of the potential risks inherent to the regulated business – referred to as target capital and defined as an expected shortfall at a 99-percent confidence level over a one-year time horizon.

The SST compares risk-bearing capital with target capital through calculation of a ratio (the 'SST ratio'). The solvency test indicates whether the level of risk-bearing capital is sufficient to reduce the probability of policyholder impairment to a level consistent with regulatory objectives.

The Group uses an adaptation of its internal Zurich Economic Capital Model (Z-ECM) to comply with the Swiss Solvency Test (SST) requirements and files results with FINMA annually. The Group calculates its solvency figures on a consolidated basis, and uses risk types that are consistent with SST requirements. Additionally, the cost of all future capital requirements needed to support the current insurance portfolio in case the firm would stop writing any new business and go into a run-off is accounted for as Risk Margin.

The model changes implemented in 2019 have a moderate impact on the ZIG SST ratio, resulting in an increase of 4 percentage points, compared to the ZIG SST ratio of 221 percent filed with FINMA as of January 1, 2019.

Based on the enhanced SST internal model the SST ratio as of January 1, 2020 stands at 198 percent, 23 percentage points lower compared to SST ratio as of January 1, 2019. Following the model change impact, the strong operational capital generation from the businesses contributed 21 percentage points to the ZIG SST ratio. However, negative market movements during the year reduced the ratio by 34 percentage points, largely due to a low interest rate environment. Dividend accrual reduced the ratio by a further 15 percentage points.

Solvency

in USD millions, for the years ended December 31	2018	Adjustments Previous year	**2019**
Derivation of risk-bearing capital			
Market-consistent value of assets minus total from best estimate liabilities plus market-consistent value of other liabilities	39,142		43,035
Deductions	(2,923)		(3,090)
Core capital	**36,220**		**39,945**
Supplementary capital	6,851		7,680
Risk-bearing capital	**43,070**		**47,625**
Derivation of target capital			
Underwriting risk	10,216		10,791
Market risk	10,108		12,270
Diversification effects	(3,928)		(3,928)
Credit risk[1]	6,503		6,967
Risk margin and other effects on target capital[2]	(1,069)		920
Target capital	**21,830**		**27,020**
SST ratio[3]	**221%**		**198%**

[1] Credit risk includes investment credit risk, reinsurance and receivables.
[2] Risk margin accounts for USD 6,047 million, other effects on target capital include diversification effects between credit risk and other risk types, and other risk models.
[3] SST ratio is defined in the SST Circular 2017/3 as a ratio of Risk Bearing Capital less Risk Margin to Target Capital less Risk Margin.

G. Solvency *continued*

Target capital by risk type

in USD millions, for the years ended December 31	2018	Adjustments previous period	2019
Insurance risk derivation of target capital			
Premium and reserve risk (including UPR risk)	7,320		6,608
Nat Cat	3,823		3,944
Life insurance liabilities	2,650		3,959
Business risk	4,104		4,916
Diversification	(7,681)		(8,636)
Total	**10,216**		**10,791**
Market risk derivation of target capital			
Equity risk	3,728		3,947
Interest rate risk	4,971		7,281
Exchange rate risk	2,861		2,548
Credit spread risk	3,551		4,111
Other	11,089		11,833
Diversification	(11,967)		(13,675)
Total (including investment credit risk)	**14,233**		**16,045**
thereof			
Market risk (excluding investment credit risk)	10,108		12,270
Investment credit risk	6,305		6,793
Credit risk derivation of target capital			
Investment credit risk	6,305		6,793
Reinsurance credit risk & receivables	766		852
Diversification	(568)		(678)
Total	**6,503**		**6,967**

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Appendix 1: Quantitative templates

Income statement Group and segments (IFRS)

in USD millions, for the years ended December 31

	Total	
	2018	**2019**
Gross written premiums	47,038	48,056
Policy fees	2,447	2,469
Gross written premiums and policy fees	**49,485**	**50,525**
Less premiums ceded to reinsurers	(8,255)	(9,274)
Net written premiums and policy fees	**41,230**	**41,251**
Net change in reserves for unearned premiums	(224)	(949)
Net earned premiums and policy fees	**41,007**	**40,302**
Farmers management fees and other related revenues	3,204	3,780
Net investment result on Group investments	**6,288**	**7,391**
Net investment income on Group Investments	5,387	5,298
Net cap gains/losses & imp. on Group investments	901	2,093
Net investment result on unit-linked investments	(4,374)	19,485
Net gain/(loss) on divestments of businesses	(24)	(295)
Other income	1,080	1,129
Total revenues	**47,180**	**71,792**
Insurance benefits and losses, gross of reinsurance	33,483	33,620
Less ceded insurance benefits and losses	(5,837)	(6,051)
Insurance benefits and losses, net of reinsurance	27,646	27,570
PH div & particip. in profits, net	(2,736)	20,582
Underwriting and policy acqu. costs, net	8,565	8,529
Administrative and other operating expense	7,761	8,020
Interest expense on debt	402	401
Interest credited to policyholders and other interest	433	590
Total benefits, losses and expenses	**42,070**	**65,692**
Net income before income taxes	**5,110**	**6,100**
Income tax expense	(1,134)	(1,716)
– attributable to policyholders	183	(365)
– attributable to shareholders	(1,317)	(1,351)
Net income after taxes	3,977	4,384
Attributable to minority interests	261	237
Attributable to shareholders	3,716	4,147

Property & Casualty		Life		Farmers		Group Functions and Operations		Non-Core Businesses/ Eliminations	
2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**
33,505	34,184	12,662	13,038	774	731	5	–	92	103
–	–	2,093	2,113	321	326	–	–	34	30
33,505	**34,184**	**14,754**	**15,151**	**1,095**	**1,056**	**5**	**–**	**126**	**133**
(7,041)	(7,822)	(1,038)	(1,193)	(179)	(175)	–	–	3	(84)
26,465	**26,362**	**13,717**	**13,958**	**916**	**882**	**5**	**–**	**129**	**50**
(34)	(754)	(202)	(275)	(1)	59	–	–	13	21
26,431	**25,608**	**13,514**	**13,683**	**915**	**941**	**5**	**–**	**141**	**71**
–	–	–	–	3,204	3,780	–	–	–	–
2,365	**2,887**	**3,570**	**4,025**	**239**	**213**	**189**	**45**	**(75)**	**221**
1,932	1,961	3,035	2,915	213	204	198	196	10	22
433	927	536	1,110	26	9	(9)	(151)	(85)	199
–	–	(4,236)	18,706	(52)	194	–	–	(86)	584
(19)	(198)	(5)	(146)	–	–	16	49	(15)	–
601	668	582	518	95	123	194	218	(392)	(398)
29,377	**28,966**	**13,426**	**36,786**	**4,401**	**5,250**	**403**	**312**	**(427)**	**478**
22,330	21,471	10,518	11,129	694	662	1	–	(59)	358
(5,038)	(4,996)	(816)	(938)	(131)	(100)	–	–	148	(16)
17,291	16,475	9,702	10,190	563	562	1	–	89	342
19	12	(2,640)	19,769	(43)	204	–	–	(71)	597
6,136	5,939	2,252	2,417	167	152	–	2	10	19
3,280	2,936	2,021	2,134	1,997	2,526	381	422	82	2
55	32	15	17	–	–	676	604	(345)	(251)
156	271	282	303	95	111	135	150	(236)	(245)
26,937	**25,666**	**11,632**	**34,830**	**2,779**	**3,555**	**1,193**	**1,178**	**(471)**	**464**
2,441	**3,300**	**1,794**	**1,956**	**1,622**	**1,695**	**(790)**	**(866)**	**44**	**14**

Appendix 1: Quantitative templates *continued*

Income statement Group and major international markets (IFRS)

in USD millions, for the years ended December 31

	Total	
	2018	**2019**
Gross written premiums	47,038	48,056
Policy fees	2,447	2,469
Gross written premiums and policy fees	**49,485**	**50,525**
Less premiums ceded to reinsurers	(8,255)	(9,274)
Net written premiums and policy fees	**41,230**	**41,251**
Net change in reserves for unearned premiums	(224)	(949)
Net earned premiums and policy fees	**41,007**	**40,302**
Farmers management fees and other related revenues	3,204	3,780
Net investment result on Group investments	**6,288**	**7,391**
Net investment income on Group Investments	5,387	5,298
Net cap gains/losses & imp. on Group investments	901	2,093
Net investment result on unit-linked investments	(4,374)	19,485
Net gain/(loss) on divestments of businesses	(24)	(295)
Other income	1,080	1,129
Total revenues	**47,180**	**71,792**
Insurance benefits and losses, gross of reinsurance	33,483	33,620
Less ceded insurance benefits and losses	(5,837)	(6,051)
Insurance benefits and losses, net of reinsurance	27,646	27,570
PH div & particip. in profits, net	(2,736)	20,582
Underwriting and policy acqu. costs, net	8,565	8,529
Administrative and other operating expense	7,761	8,020
Interest expense on debt	402	401
Interest credited to policyholders and other interest	433	590
Total benefits, losses and expenses	**42,070**	**65,692**
Net income before income taxes	**5,110**	**6,100**
Income tax expense	(1,134)	(1,716)
– attributable to policyholders	183	(365)
– attributable to shareholders	(1,317)	(1,351)
Net income after taxes	3,977	4,384
Attributable to minority interests	261	237
Attributable to shareholders	3,716	4,147

Europe, Middle East & Africa Property & Casualty		North America Property & Casualty		Europe, Middle East & Africa Life		Farmers		Other	
2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**
14,600	14,558	14,716	15,223	8,509	8,025	774	731	8,439	9,520
–	–	–	–	1,594	1,564	321	326	532	579
14,600	**14,558**	**14,716**	**15,223**	**10,103**	**9,589**	**1,095**	**1,056**	**8,971**	**10,099**
(2,389)	(2,739)	(4,988)	(5,551)	(639)	(650)	(179)	(175)	(59)	(158)
12,211	**11,818**	**9,728**	**9,672**	**9,464**	**8,939**	**916**	**882**	**8,912**	**9,941**
(125)	(327)	277	(116)	(25)	(40)	(1)	59	(350)	(525)
12,086	**11,491**	**10,005**	**9,556**	**9,439**	**8,899**	**915**	**941**	**8,561**	**9,416**
–	–	–	–	–	–	3,204	3,780	–	–
847	**1,015**	**1,209**	**1,535**	**3,010**	**3,325**	**239**	**213**	**983**	**1,303**
621	578	1,026	1,081	2,474	2,313	213	204	1,053	1,122
225	437	183	455	536	1,012	26	9	(70)	181
–	–	–	–	(5,159)	16,514	(52)	194	836	2,776
(19)	19	–	–	(5)	(103)	–	–	–	(211)
320	355	50	79	458	369	95	123	158	203
13,234	**12,880**	**11,264**	**11,171**	**7,743**	**29,003**	**4,401**	**5,250**	**10,539**	**13,488**
9,908	9,205	10,655	10,264	8,260	8,051	694	662	3,967	5,438
(2,024)	(1,767)	(3,546)	(3,709)	(486)	(480)	(131)	(100)	350	6
7,884	7,438	7,109	6,555	7,774	7,571	563	562	4,317	5,444
8	7	10	8	(3,596)	17,537	(43)	204	885	2,826
2,315	2,168	2,318	2,295	925	917	167	152	2,840	2,997
1,854	1,633	637	412	1,416	1,332	1,997	2,526	1,856	2,117
16	18	1	–	4	2	–	–	380	380
181	172	(23)	66	218	212	95	111	(39)	30
12,259	**11,436**	**10,052**	**9,336**	**6,741**	**27,571**	**2,779**	**3,555**	**10,240**	**13,794**
975	**1,445**	**1,212**	**1,835**	**1,002**	**1,433**	**1,622**	**1,695**	**299**	**(307)**

Appendix 1: Quantitative templates *continued*

Market-Consistent Balance Sheet

in USD millions, for the years ended December 31

	2018	Adjustments previous period	2019
Market-consistent value of investments			
Real estate	12,351		13,261
Participations	36		39
Fixed-income securities	124,068		126,426
Loans	9,130		9,832
Mortgages	6,934		6,350
Equities	7,644		8,408
Other investments.	25,298		31,680
Collective investment schemes	3,682		4,620
Alternative investments	3,308		8,937
Structured products	0		0
Other investments	18,308		18,123
Total Investments	**185,461**		**195,996**
Market-consistent value of other assets			
Financial investments from unit-linked life insurance	133,047		126,591
Receivables from derivative financial instruments	899		1,226
Deposits made under assumed reinsurance contracts	965		783
Cash and cash equivalents	8,669		7,915
Reinsurers' share of best estimate of provisions for insurance liabilities	17,567		21,227
Direct insurance: life insurance business (excluding unit linked life insurance)	4,916		6,175
Reinsurance: life insurance business (excluding unit linked life insurance)	317		381
Direct insurance: non-life insurance business.	7,469		9,580
Direct insurance: health insurance business	0		0
Reinsurance: non-life insurance business	4,865		5,090
Reinsurance: health insurance business	0		0
Direct insurance: other business.	0		0
Reinsurance: other business	0		1
Direct insurance : unit-linked life insurance business.	(0)		(0)
Reinsurance: unit-linked life insurance business	0		0
Fixed assets	1,470		3,008
Deferred acquisition costs	0		0
Intangible assets	0		0
Receivables from insurance business	9,775		9,540
Other receivables	3,574		4,019
Other assets	654		1,285
Unpaid share capital	0		0
Accrued assets	3,171		3,297
Total other assets	**179,789**		**178,892**
Total market-consistent value of assets	**365,250**		**374,888**

Market-Consistent Balance Sheet

in USD millions, for the years ended December 31

	2018	Adjustments previous period	2019
Market-consistent value of investments			
BEL: Best estimate liabilities (including unit linked life insurance)			
Best estimate of provisions for insurance liabilities	**(162,771)**		**(171,054)**
Direct insurance: life insurance business (excluding unit linked life insurance)	(94,743)		(101,913)
Reinsurance: life insurance business (excluding unit linked life insurance)	(694)		(2,045)
Direct insurance: non-life insurance business	(63,182)		(63,022)
Direct insurance: health insurance business	0		0
Reinsurance: non-life insurance business	(3,676)		(3,558)
Reinsurance: health insurance business	0		0
Direct insurance: other business	(470)		(508)
Reinsurance: other business	(6)		(7)
Best estimate of provisions for unit-linked life insurance liabilities	**(129,531)**		**(122,744)**
Direct insurance: unit-linked life insurance business	(129,532)		(122,744)
Reinsurance: unit-linked life insurance business	1		(0)
Market consistent value of other liabilities			
Non-technical provisions	(3,397)		(3,338)
Interest-bearing liabilities	(5,978)		(5,644)
Liabilities from derivative financial instruments	(325)		(365)
Deposits retained on ceded reinsurance	(432)		(911)
Liabilities from insurance business	(3,612)		(4,023)
Other liabilities	(8,971)		(11,601)
Accrued liabilities	(4,238)		(4,492)
Subordinated debts	(6,851)		(7,680)
Total BEL plus market-consistent value of other liabilities	(326,107)		(331,853)
Market-consistent value of assets minus total from BEL plus market-consistent value of other liabilities	39,142		43,035

Appendix 2: Interest in subsidiaries

Significant subsidiaries are defined as those subsidiaries which either individually or in aggregate, contribute significantly to gross written premiums, shareholder's equity, total assets or net income attributable to shareholders.

Significant subsidiaries – non-listed

as of December 31, 2019

	Registered office	Voting rights %	Ownership interest %	Nominal value of share capital (in local currency millions)	
Australia					
Cover-More Group Limited	Sydney	100	100	AUD	1,014.2
Zurich Australia Limited	Sydney	100	100	AUD	476.5
Zurich Australian Insurance Limited	Sydney	100	100	AUD	6.6
Zurich Financial Services Australia Limited	Sydney	100	100	AUD	2,674.9
OnePath Life Limited	Sydney	100	100	AUD	1,219.4
OnePath Life Australia Holdings Pty Limited	Sydney	100	100	AUD	2,470.7
Austria					
Zürich Versicherungs-Aktiengesellschaft	Vienna	99.98	99.98	EUR	12.0
Brazil					
Zurich Santander Brasil Seguros e Previdência S.A.[1]	Sao Paulo	51	51	BRL	2,509.2
Zurich Minas Brasil Seguros S.A.	Belo Horizonte	100	100	BRL	2,476.0
Zurich Resseguradora Brasil S.A.	Sao Paulo	100	100	BRL	204.0
Chile					
Chilena Consolidada Seguros de Vida S.A.	Santiago	98.98	98.98	CLP	179,682.6
Zurich Santander Seguros de Vida Chile S.A.[1]	Santiago	51	51	CLP	24,252.9
Germany					
Deutscher Herold Aktiengesellschaft	Bonn	100	100	EUR	18.4
Zürich Beteiligungs-Aktiengesellschaft (Deutschland)	Frankfurt	100	100	EUR	152.9
Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft	Bonn	100	100	EUR	68.5
Ireland					
Zurich Life Assurance plc	Dublin	100	100	EUR	17.5
Zurich Holding Ireland Limited	Dublin	100	100	EUR	0.1
Zurich Insurance plc	Dublin	100	100	EUR	8.2
Italy					
Zurich Investments Life S.p.A.	Milan	100	100	EUR	199.0
Luxembourg					
REX-ZDHL S.C.S. SICAV-SIF	Leudelange	100	100	EUR	1,446.8
Malaysia					
Zurich Life Insurance Malaysia Berhad	Kuala Lumpur	100	100	MYR	579.0
Zurich Holdings Malaysia Berhad	Kuala Lumpur	100	100	MYR	515.4
Mexico					
Zurich Santander Seguros México, S.A.[1]	Mexico City	51	51	MXN	190.0

Significant subsidiaries – non-listed (continued)

as of December 31, 2019

	Registered office	Voting rights %	Ownership interest %	Nominal value of share capital (in local currency millions)	
Spain					
Bansabadell Pensiones, E.G.F.P, S.A.	Madrid	50	50	EUR	7.8
Bansabadell Seguros Generales, S.A. de Seguros y Reaseguros	Madrid	50	50	EUR	10.0
Bansabadell Vida S.A. de Seguros y Reaseguros	Madrid	50	50	EUR	43.9
Zurich Latin America Holding S.L. – Sociedad Unipersonal	Barcelona	100	100	EUR	43.0
Zurich Santander Holding (Spain), S.L.[1]	Boadilla del Monte	51	51	EUR	94.3
Zurich Santander Holding Dos (Spain), S.L.[1]	Madrid	51	51	EUR	40.0
Zurich Santander Insurance America, S.L.[1]	Madrid	51	51	EUR	177.0
Zurich Vida, Compañía de Seguros y Reaseguros, S.A. – Sociedad Unipersonal	Madrid	100	100	EUR	56.4
Switzerland					
Zurich Finance Company AG	Zurich	100	100	CHF	0.2
Zurich Insurance Company Ltd	Zurich	100	100	CHF	825.0
Zurich Life Insurance Company Ltd	Zurich	100	100	CHF	60.0
Zürich Rückversicherungs-Gesellschaft AG	Zurich	100	100	CHF	11.7
United Kingdom					
Allied Zurich Holdings Limited	St. Hélier, Jersey	100	100	GBP	477.6
Zurich Assurance Ltd	Cheltenham, England	100	100	GBP	236.1
Zurich Employment Services Limited	Cheltenham, England	100	100	GBP	254.1
Zurich Financial Services (UKISA) Limited	Cheltenham, England	100	100	GBP	1,340.8
Zurich Holdings (UK) Limited	Fareham, England	100	100	GBP	200.8
Zurich International Life Limited	Douglas, Isle of Man	100	100	GBP	123.4
Zurich UK General Services Limited	Fareham, England	100	100	GBP	343.2

Appendix 2: Interest in subsidiaries *continued*

Significant subsidiaries – non-listed (continued)

as of December 31, 2019

	Registered office	Voting rights %	Ownership interest %		Nominal value of share capital (in local currency millions)
United States of America					
Farmers Group, Inc.[2]	Carson City, NV	100	100	USD	0.001
Farmers Reinsurance Company[2]	Woodland Hills, CA	100	100	USD	58.8
Farmers New World Life Insurance Company[2]	Bellevue, WA	100	100	USD	6.6
Zurich American Company, LLC	Wilmington, DE	100	100	USD	0.00001
Zurich American Insurance Company	New York, NY	100	100	USD	5.0
Zurich American Life Insurance Company	Schaumburg, IL	100	100	USD	2.5
Zurich Holding Company of America, Inc.[3]	Wilmington, DE	100	100	USD	0.0
ZCM Matched Funding Corp.	George Town, Cayman Islands	100	100	USD	0.00001
Centre Group Holdings (U.S.) Limited	Wilmington, DE	100	100	USD	0.00001
ZCM (U.S.) Limited	Wilmington, DE	100	100	USD	0.00001
Zurich Capital Markets Inc.	Wilmington, DE	100	100	USD	0.00001
Zurich Structured Finance, Inc.	Wilmington, DE	100	100	USD	0.012

1 Entities 100% owned by a ZIG subsidiary which is 51% owned by ZIG.
2 The ownership percentages in Farmers Group, Inc. and its fully owned subsidiaries have been calculated based on the participation rights of Zurich Insurance Group in a situation of liquidation, dissolution or winding up of Farmers Group, Inc.
3 Shares have no nominal value in accordance with the company's articles of incorporation and local legislation.

Appendix 3: Report of the statutory auditor on the Group consolidated financial statements 2019

The Financial Condition Report is not audited.

The consolidated financial statements of Zurich Insurance Group Ltd and its subsidiaries (the Group), which comprise the consolidated income statement, consolidated statement of comprehensive income, consolidated balance sheet, consolidated statement of cash flows, consolidated statement of changes in equity and notes to the consolidated financial statements for the year ended December 31, 2019 are audited. Please refer to the report of the statutory auditor in the Zurich Group Annual Report 2019, page 290.

https://www.zurich.com/en/investor-relations/results-and-reports

Disclaimer and cautionary statement

Certain statements in this document are forward-looking statements, including, but not limited to, statements that are predictions of or indicate future events, trends, plans or objectives of Zurich Insurance Group Ltd or the Zurich Insurance Group (the Group). Forward-looking statements include statements regarding the Group's targeted profit, return on equity targets, expenses, pricing conditions, dividend policy and underwriting and claims results, as well as statements regarding the Group's understanding of general economic, financial and insurance market conditions and expected developments. Undue reliance should not be placed on such statements because, by their nature, they are subject to known and unknown risks and uncertainties and can be affected by other factors that could cause actual results and plans and objectives of Zurich Insurance Group Ltd or the Group to differ materially from those expressed or implied in the forward-looking statements (or from past results). Factors such as (i) general economic conditions and competitive factors, particularly in key markets; (ii) the risk of a global economic downturn; (iii) performance of financial markets; (iv) levels of interest rates and currency exchange rates; (v) frequency, severity and development of insured claims events; (vi) mortality and morbidity experience; (vii) policy renewal and lapse rates; and (viii) changes in laws and regulations and in the policies of regulators may have a direct bearing on the results of operations of Zurich Insurance Group Ltd and its Group and on whether the targets will be achieved. Zurich Insurance Group Ltd undertakes no obligation to publicly update or revise any of these forward-looking statements, whether to reflect new information, future events or circumstances or otherwise.

All references to 'Farmers Exchanges[1]' mean Farmers Insurance Exchange, Fire Insurance Exchange, Truck Insurance Exchange and their subsidiaries and affiliates. The three Exchanges are California domiciled interinsurance exchanges owned by their policyholders with governance oversight by their Boards of Governors. Farmers Group, Inc. and its subsidiaries are appointed as the attorneys-in-fact for the Farmers Exchanges[1] and in that capacity provide certain non-claims services and ancillary services to the Farmers Exchanges[1]. Neither Farmers Group, Inc., nor its parent companies, Zurich Insurance Company Ltd and Zurich Insurance Group Ltd, have any ownership interest in the Farmers Exchanges[1]. Financial information about the Farmers Exchanges[1] is proprietary to the Farmers Exchanges[1], but is provided to support an understanding of the performance of Farmers Group, Inc. and Farmers Reinsurance Company.

It should be noted that past performance is not a guide to future performance. Please also note that interim results are not necessarily indicative of full year results.

Persons requiring advice should consult an independent advisor.

This communication does not constitute an offer or an invitation for the sale or purchase of securities in any jurisdiction.

THIS COMMUNICATION DOES NOT CONTAIN AN OFFER OF SECURITIES FOR SALE IN THE UNITED STATES; SECURITIES MAY NOT BE OFFERED OR SOLD IN THE UNITED STATES ABSENT REGISTRATION OR EXEMPTION FROM REGISTRATION, AND ANY PUBLIC OFFERING OF SECURITIES TO BE MADE IN THE UNITED STATES WILL BE MADE BY MEANS OF A PROSPECTUS THAT MAY BE OBTAINED FROM THE ISSUER AND THAT WILL CONTAIN DETAILED INFORMATION ABOUT THE COMPANY AND MANAGEMENT, AS WELL AS FINANCIAL STATEMENTS.

[1] The Farmers Exchanges are owned by their policyholders. Farmers Group, Inc, a wholly-owned subsidiary of the Group, provides certain non-claims services and ancillary services to the Farmers Exchanges as attorney-in-fact and receives fees for its services.

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