

Financial Condition Report 2018



Zurich Insurance Group

Contents

Acronyms	4
Introduction	5
A. Business activities	8
A.1 Company structure and major subsidiaries	8
A.2 Information about the company's strategy, objectives and key business segments	11
A.3 Information about the company's external auditors as per Article 28 ISA	13
A.4 Significant unusual events	13
B. Performance	14
C. Corporate governance and risk management	22
C.1 Corporate governance	22
C.2 Risk management	27
C.3 Internal control system	29
C.4 Compliance	30
C.5 Internal audit function	31
D. Risk profile	32
D.1 Insurance risk	33
D.2 Market risk including investment credit risk	39
D.3 Other credit risk	45
D.4 Operational risk	47
D.5 Liquidity risk	48
D.6 Other material risks	49
E. Valuation	50
E.1 Overarching market-consistent valuation principle	50
E.2 Market-consistent balance sheet following SST principles	51
F. Capital management	61
F.1 Capital management objectives	61
F.2 Capital structure	61
F.3 Capital management framework	62
F.4 Capital management program	62
F.5 Economic capital adequacy and overall risk appetite and tolerance	63
F.6 Insurance financial strength rating	65
F.7 Regulatory capital adequacy	65
F.8 Z-ECM and SST	66
G. Solvency	67
Appendix 1: Quantitative templates	70
Appendix 2: Interest in subsidiaries	75
Appendix 3: Report of the statutory auditor on the Group consolidated financial statements 2018	78

The information published in this report is consistent with the information published in the Annual Report 2018 of Zurich Insurance Group and the regulatory reportings of the Zurich Insurance Group for the year 2018, 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 54,000 employees, it provides a wide range of property and casualty, and life insurance products and services in more than 210 countries and territories.

Total revenues

USD 51.6bn¹

Business operating profit

USD 4.6bn²

Total Group investments

USD 195bn

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 132 percent as of January 1, 2018 to 124 percent as of January 1, 2019. The development of the Z-ECM ratio in 2018 was driven mainly by financial market performance, economic profit generation, and selective acquisitions.

Zurich Economic Capital Model ratio
as of January 1, 2019

Z-ECM 124%

Financial condition

The Group maintained its strong rating level in 2018. As of December 31, 2018, the Insurance Financial Strength Rating of Zurich Insurance Company Ltd (ZIC), the main operating entity of the Group, was 'AA-/Stable' by Standard and Poor's, 'Aa3/Stable' by Moody's, and 'A+ (Superior) /Stable' by A.M. Best.

Shareholders' equity

USD 30.2bn

Swiss Solvency Test ratio as of January 1, 2019

SST 221%

Standard and Poor's financial strength rating as of
December 31, 2018

AA-/stable

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.

Acronyms

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

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 2018 financial year, and should be read in conjunction with the Annual Report 2018 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 results' are presented based on International Financial Reporting Standards (IFRS).
- The 'risk profile' chapter 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' chapter.
- '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, 2018.
- Finally, the 'solvency' chapter 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 67. 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 54,000 employees, it provides a wide range of property and casualty, and life insurance products and services in more than 210 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 4.6 billion increased by USD 0.8 billion or 20 percent in U.S. dollar terms. This increase reflects strong performance in a challenging market and claims environment. The Life business BOP contribution increased year-on-year, driven by continued portfolio growth and further cost improvements, while the Property & Casualty (P&C) business demonstrated improvement in the underwriting result in the face of another year of elevated catastrophe losses. Farmers Management Services also contributed to the improvement in BOP, fueled by growth at the Farmers Exchanges¹ while the Farmers Life business also showed strong increases in new business value. In addition, accumulated expense savings of around USD 1.1 billion against the 2015 baseline have been achieved.

Corporate governance and risk management

Zurich Insurance Group, consisting of Zurich Insurance Group Ltd and its subsidiaries 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 provide proper organization and conduct of business within Zurich and to define 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 administrative, management, and ancillary services to the Farmers Exchanges as attorney-in-fact and receives fees for its services.

Introduction *continued*

The 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 chaired by the Group Chief Executive Officer (CEO). As of December 31, 2018, to reflect the Group's business and geography, members of the ExCo included the CEO EMEA (Europe, Middle East & Africa), 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 (CFO), the Group Chief Investment Officer (CIO), the Group Chief Operating Officer (COO) and the Group Chief Risk Officer (CRO) were also members of the ExCo as of December 31, 2018.

Taking risk is inherent to the insurance business, but 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 enterprise risk management framework (ERM) supports achievement of the Group's strategy and helps protect capital, liquidity, earnings and reputation.

Risk profile

The Group assesses risks systematically and from a strategic perspective through its proprietary Total Risk Profiling™ (TRP) process, which allows Zurich to identify and evaluate the frequency and severity of a risk scenario. The Group then develops, implements and monitors improvements. The TRP process is integral to how Zurich deals with change, and is particularly suited to evaluate strategic risks, as well as risks to Zurich's reputation. At Group level, this process is ongoing, with regular reviews with senior management.

Among the risks focused on in 2018 are the uncertainties of geopolitical and macroeconomic environments, inflation, credit and cyber risks, and risks to the execution of our organizational transformation.

The Group regularly reports on its risk profile at local and Group levels. The Group has procedures to refer risk issues 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 2018, reporting was supplemented with in-depth risk insights into topics such as macroeconomic developments, inflation, information security management, climate change-related risks, cyber and credit risks, and risks to the execution of our organizational transformation.

Economic risk profile

Zurich's main quantitative risk management tool is our internal economic capital model Z-ECM. Z-ECM is an integral part of how the Group is managed. It is embedded in the Group's organization and decisionmaking 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.

Total Z-ECM capital required: USD 31.0 billion

%, as of January 1, 2019



The Group's Z-ECM ratio has decreased from 132 percent as of January 1, 2018 to 124 percent as of January 1, 2019. The development of the Z-ECM ratio in 2018 was driven mainly by financial market performance, economic profit generation, and selective acquisitions.

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 decreased by USD 11.4 billion from USD 196.9 billion as of 2017 to USD 185.5 billion as of 2018.

The market-consistent value of total Other assets increased by USD 0.2 billion from USD 28.1 billion in 2017 to USD 28.3 billion in 2018.

The market value Best estimate of insurance liabilities decreased by USD 25.7 billion from USD 318 billion as of December 31, 2017 to USD 292.3 billion as of December 31, 2018. Shares of reinsurers in the insurance reserves decreased by USD 21.1 billion from USD 38.7 billion in December 31, 2017 to USD 17.6 billion in December 31, 2018. The market value of Other liabilities has decreased by USD 1 billion from USD 34.8 billion as of December 31, 2017 to USD 33.8 billion as of December 31, 2018.

Capital management

The Zurich Insurance Group manages its capital to maximize long-term shareholder value while maintaining financial strength within its 'AA' target range, and meeting regulatory, solvency and rating agency requirements. In particular, the Zurich Insurance Group endeavors to manage its shareholder's equity of USD 30.2 billion, subordinated debts of USD 6.8 billion and senior financial debts not maturing within the next year of USD 2.4 billion as part of the capital available in the Zurich Insurance Group's economic framework. Further adjustments usually include such items as intangible assets, deferred tax assets and liabilities, or allowing for discounting of liabilities and the value of in-force business, as presented in the market-consistent balance sheet.

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 Swiss Solvency Test (SST) requirements.

In 2018, 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, 2019 stands at 221%, 5 percentage points higher compared to SST ratio as of January 1, 2018. Following the favorable model change impact, the SST ratio remains stable as the strong operational capital generation from the businesses is offset by negative financial market movements in the latter part of the year and the dividend accrual.

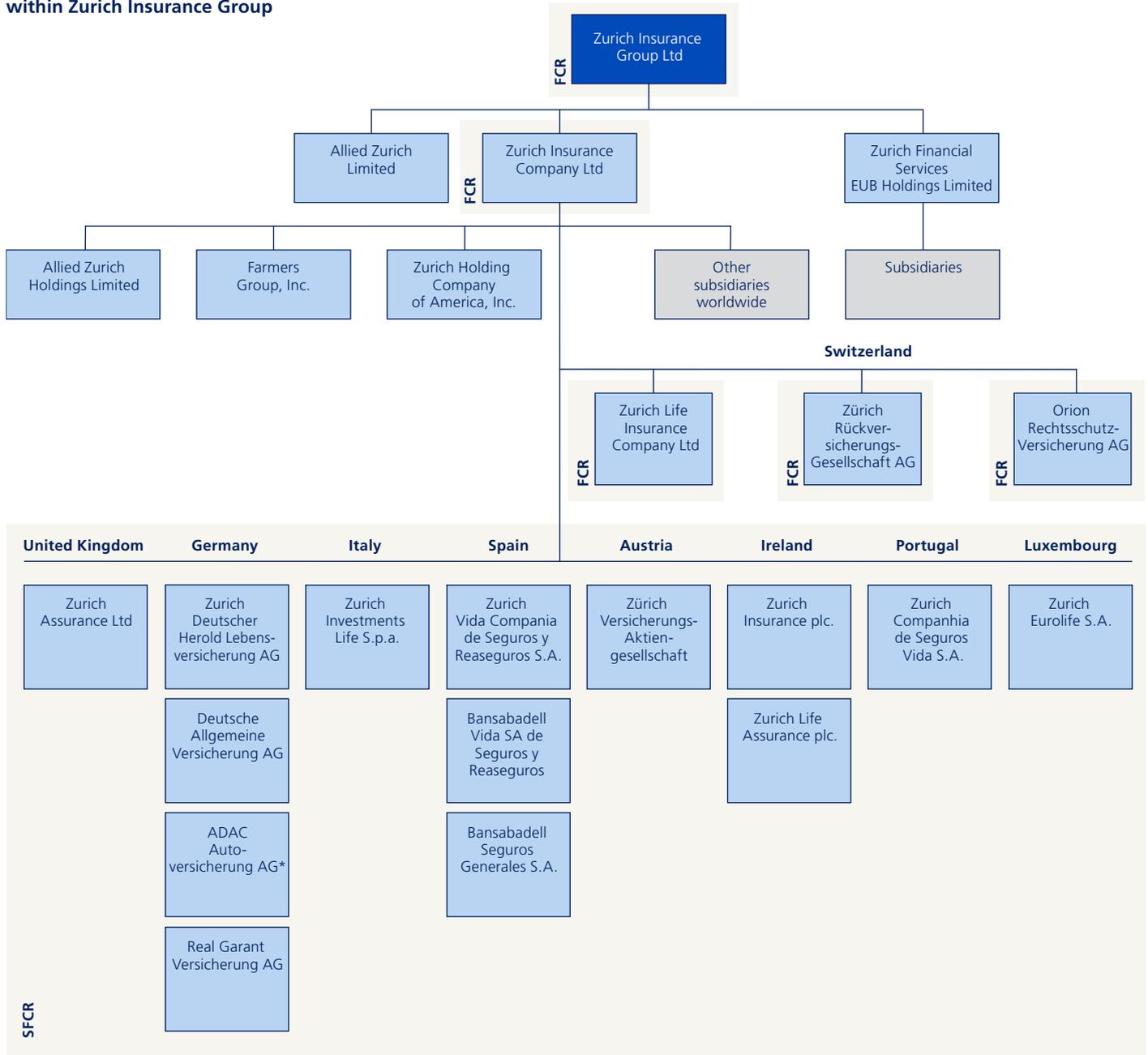
2 Approval of the Financial Condition Report

This Report was reviewed and signed-off by the Board of Directors of Zurich Insurance Group Ltd on April 23, 2019.

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, 2018), 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.

*on December 21, 2018, the Group entered into an agreement to sell its 51% participation in ADAC Autoversicherung AG. The sale of the shares in ADAC Autoversicherung AG became effective as of January 1, 2019.

Zurich is a leading multi-line insurer that serves its customers in global and local markets. With about 54,000 employees, Zurich provides a wide range of property and casualty, and life insurance products and services in more than 210 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') is the principal operating insurance company of ZIG. ZIC and its subsidiaries are collectively referred to as 'Zurich Insurance Company Group' or 'ZIC Group.'

The subsidiaries of ZIC 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 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 2018

Acquisitions

Blue Insurance

On October 3, 2018, Cover-More Australia Pty Ltd, a fully owned subsidiary of Zurich Insurance Company Ltd, completed the acquisition of Blue Insurance Ltd (Blue Insurance), an Irish domiciled insurance intermediary acquired for approximately USD 64 million, subject to performance adjustments. Based on the initial purchase price accounting, goodwill amounted to USD 35 million.

Adira Insurance

On September 27, 2018, Zurich Insurance Group entered into agreements to acquire 80 percent of PT Asuransi Adira Dinamika (Adira Insurance) from PT Bank Danamon Indonesia (Bank Danamon) and a minority investor for approximately USD 414 million, with potential future incremental payments based on business performance. The transaction includes two separate long-term strategic cooperation agreements with Bank Danamon and PT Adira Dinamika Multi Finance Tbk. The transaction is expected to close in the first half of 2019, subject to regulatory approval.

EuroAmerica portfolio in Chile

On April 20, 2018, the Group announced it had entered into an agreement to acquire the individual and group life insurance portfolios as well as the long-term savings operations of EuroAmerica in Chile. The Group finalized the acquisition on November 5, 2018, for an estimated aggregate price of USD 144 million, subject to closing adjustments. Based on the initial purchase price accounting, goodwill amounted to USD 102 million.

Travel Ace and Universal Assistance

On March 12, 2018, the Group announced the acquisition of Travel Ace and Universal Assistance, the leading providers of traveler assistance in Latin America for approximately USD 82 million. The transaction encompassed 19 legal entities operating throughout Latin America, most notably in Argentina, Brazil, Chile, Colombia and Mexico. Based on the initial purchase price accounting, goodwill amounted to USD 94 million.

A. Business activities *continued*

QBE Latin America

On February 24, 2018, the Group entered into an agreement to acquire the Latin American operations of the Australian insurer QBE Insurance Group Limited (QBE) with operations in Argentina, Brazil, Colombia, Ecuador and Mexico, subject to regulatory approvals. On July 2, 2018, the acquisitions of Argentina and Brazil were closed for an amount of USD 196 million and USD 34 million, respectively. The acquisitions of Mexico and Ecuador were closed on August 31, 2018 and October 1, 2018, for an amount of USD 32 million and USD 52 million, respectively. The acquisition of Colombia was completed on February 1, 2019, for an amount of USD 36 million.

QBE Latin America's net income after taxes for the months since the acquisition dates, as included in the Group consolidated income statements for the year ended December 31, 2018, amounts to USD 3 million including transaction-related costs. Pro-forma net income after taxes for the full 12 months ended December 31, 2018, amounts to approximately USD 21 million, adjusted for transaction-related costs incurred by QBE Latin America. In addition, the Group incurred transaction-related costs of approximately USD 9 million in non-technical expenses in BOP. The majority has been incurred in 2018.

Update on acquisition of ANZ life and consumer credit insurance business

On December 11, 2017, the Group announced that it had entered into an agreement to acquire 100 percent of the Australian life insurance and consumer credit business (One Path Life) of Australia and New Zealand Banking Group Limited (ANZ) for AUD 2.85 billion (USD 2 billion), subject to a purchase price adjustment. The transaction, which is subject to regulatory approval, is expected to close during the first half of 2019. In May 2018, the Group entered into a quota share reinsurance agreement with One Path Life and made an upfront commission payment of USD 754 million.

Divestments

Held for sale

On December 21, 2018, the Group entered into an agreement to sell its 51 percent participation in ADAC Autoversicherung AG and the shares in Bonnfinanz AG. The sale of the shares in ADAC Autoversicherung AG became effective as of January 1, 2019, while the sale of Bonnfinanz AG is expected to close in the first half of 2019. As of December 31, 2018, assets and liabilities of USD 431 million and USD 294 million, respectively, were reclassified to held for sale.

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 sale is expected to close in the second half of 2019. As of December 31, 2018, assets and liabilities reclassified to held for sale were USD 260 million and USD 1.8 billion, respectively.

On November 7, 2018, the Group entered into an agreement to sell its Venezuelan operations, subject to regulatory approval. The Group currently has USD 258 million of negative cumulative translation adjustments which will be recognized in the statement of income upon completion of the sale.

During the 12 months ended December 31, 2017, the Group entered into an agreement to sell a Life business in the UK. As of December 31, 2018, the related assets and liabilities held for sale decreased by USD 6 billion to USD 23 billion since December 31, 2017.

As of December 31, 2018, the total assets and liabilities reclassified to held for sale were USD 24 billion and USD 26 billion, respectively.

UK workplace pensions 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. The remaining business is to be 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. The target transfer date is July 1, 2019.

Endsleigh Limited

On March 29, 2018, the Group completed the sale of the Endsleigh Limited group of companies to A-Plan Holdings. A pre-tax loss of USD 116 million has been recorded within net gains/losses on divestment of businesses, of which USD 97 million were recognized in December 2017 at the time the sale was announced.

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 service quality and customer experience;
- 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 expand customer relationships, simplify the business and significantly reduce costs. 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 Exchanges¹ will continue to focus on improving customer satisfaction and retention rates.

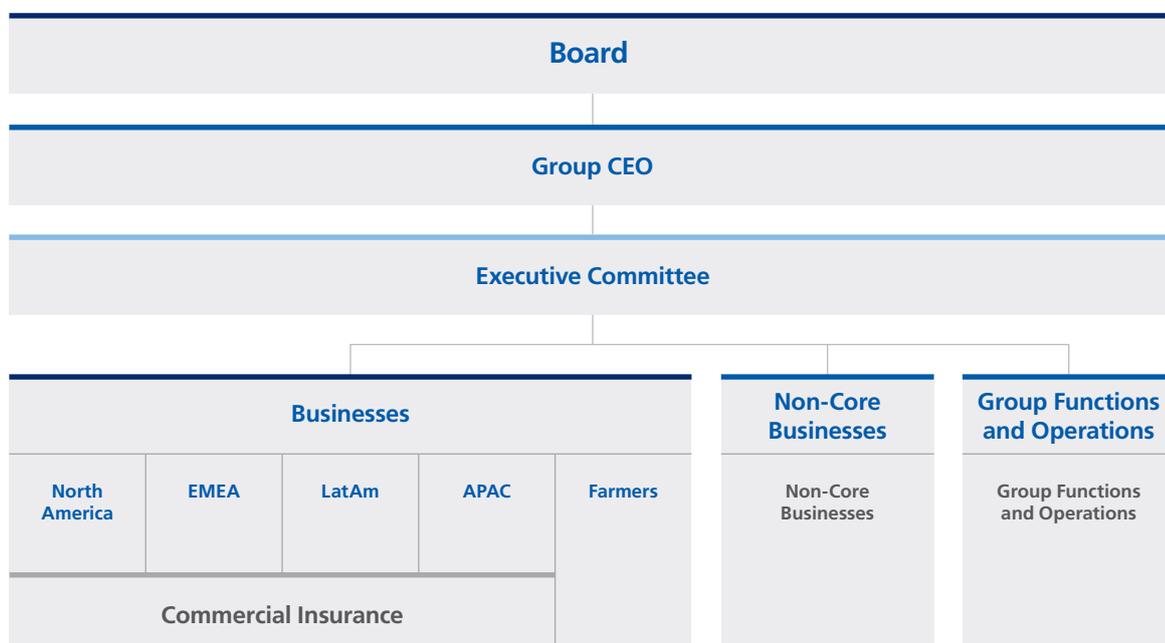
For additional information on the Group’s strategy, see pages 12 and 13 of the Annual Report 2018.

Group structure

The following chart shows the operational group structure on December 31, 2018.

Operational Group structure

as of December 31, 2018



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

A. Business activities *continued*

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 has identified 13 reportable segments in accordance with IFRS 8 'Operating Segments'. The Group's reportable segments for 2018 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, non-claims related, administrative, management, and ancillary services to the Farmers Exchanges¹ as attorney-in-fact. FGI receives fee income for the provision of services to the Farmers Exchanges¹, 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 Exchanges¹ by the Group. Farmers Exchanges¹ 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.

Joint ventures and distribution networks

Zurich can reach over 60 million customers in major markets in 15 countries through our bank distribution networks. This approach is particularly popular in southern Europe and Latin America for customers seeking life insurance and savings products, as well as general insurance products. Many banks also see this as a way to develop key products to meet the needs of their customers.

Zurich continues to grow our business through such agreements. Its most significant relationships include joint ventures with Banco Santander S.A. in Latin America and Banco Sabadell S.A. in Spain

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

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 2018, the Group received two notifications by third parties that they had either exceeded or fallen below a relevant threshold.

As of December 31, 2018, 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 (> 3 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, 2018, 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 4, 2018, PwC was re-elected by the shareholders of Zurich Insurance Group Ltd.

A.4 Significant unusual events

For significant events during 2018 and thereafter, please refer to the Annual Report 2018 of Zurich Insurance Group as well as to the news releases available at <https://www.zurich.com/en/media/news-releases>. No other significant events are to be reported.

B. Performance

Financial highlights

in USD millions, for the years ended December 31, unless otherwise stated	2017	2018	Change ¹
Business operating profit	3,803	4,566	20%
Net income attributable to shareholders	3,004	3,716	24%
P&C business operating profit	1,546	2,085	35%
P&C gross written premiums and policy fees	33,024	33,505	1%
P&C combined ratio	100.9%	97.8%	3.1 pts
Life business operating profit	1,258	1,554	23%
Life gross written premiums, policy fees and insurance deposit	33,242	33,448	1%
Life new business annual premium equivalent (APE) ²	4,868	4,639	(5%)
Life new business margin, after tax (as % of APE) ²	23.3%	24.1%	0.8 pts
Life new business value, after tax ²	999	981	(2%)
Farmers business operating profit	1,691	1,643	(3%)
Farmers Management Services management fees and other related revenues ³	2,892	3,204	11%
Farmers Management Services managed gross earned premium margin	7.0%	7.0%	–
Farmers Re gross written premiums and policy fees	995	194	(81%)
Farmers Life new business annual premium equivalent (APE) ²	91	84	(7%)
Average Group investments ⁴	189,723	190,235	–
Net investment result on Group investments ⁴	7,249	6,288	(13%)
Net investment return on Group investments ^{4,5}	3.8%	3.3%	(0.5 pts)
Total return on Group investments ^{4,5}	4.1%	0.6%	(3.4 pts)
Shareholders' equity ⁶	32,993	30,189	(8%)
Z-ECM ⁷	132%	125%	(7.0 pts)
Return on common shareholders' equity (ROE) ⁸	10.9%	13.1%	2.1 pts
Business operating profit (after tax) return on common shareholders' equity (BOPAT ROE) ⁸	9.2%	12.1%	2.8 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 the annual results 2018. 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 An adjustment made related to the adoption of IFRS 15 'Revenue from Contracts with Customers' resulted in a USD 289 million increase to revenues and a USD 287 million increase to expenses.

⁴ Including investment cash.

⁵ Calculated on average Group investments.

⁶ 2017 balance includes adjustment for effect of adoption of IFRS 15 'Revenue from Contracts with Customers'.

⁷ Ratio as of December 31, 2018 reflects midpoint estimate with an error margin of +/-5 pts.

⁸ 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.

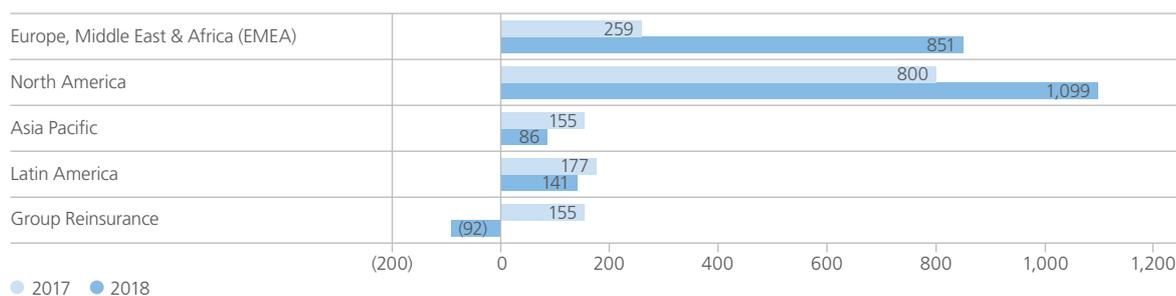
Property & Casualty (P&C)

in USD millions, for the years ended December 31

	2017	2018	Total Change
Gross written premiums and policy fees	33,024	33,505	1%
Net earned premiums and policy fees	26,033	26,431	2%
Insurance benefits and losses, net of reinsurance	17,996	17,291	4%
Net underwriting result	(231)	574	nm
Net investment result	2,038	1,884	(8%)
Business operating profit	1,546	2,085	35%
Loss ratio	69.1%	65.4%	3.7 pts
Expense ratio	31.8%	32.4%	(0.6 pts)
Combined ratio	100.9%	97.8%	3.1 pts

P&C business operating profit (BOP)

in USD millions, for the years ended December 31



Gross written premiums in Property & Casualty (P&C) for the full year of 2018 rose 1 percent in U.S. dollars and were flat in local currency and adjusting for the acquisitions, which were closed during the second half of the year.

Property & Casualty Business Operating Profit for the year 2018 was USD 2.1 billion, 35 percent higher than in the previous year.

The underwriting result increased strongly by USD 805 million due to a combination of underlying improvement in the combined ratio, lower natural catastrophe losses and more favorable development of reserves established in prior years. The combined ratio for 2018 improved by 3.1 percentage points to 97.8 percent from 100.9 percent for 2017.

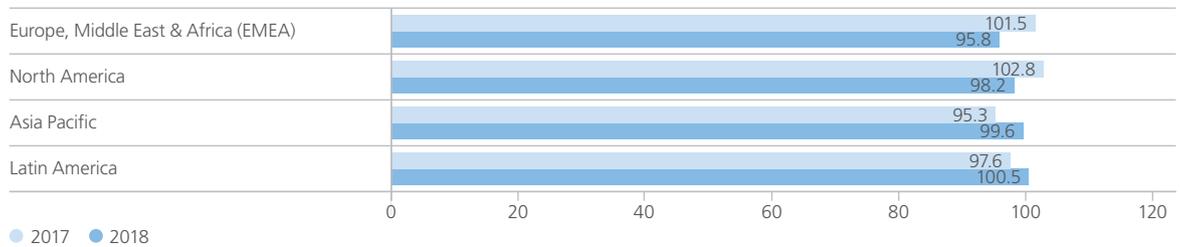
Investment income for the full year increased by 5 percent in U.S. dollars and 8 percent in local currency, driven by underlying growth in investment income across North America, Latin America and Asia Pacific, while EMEA saw a decline. This improvement was more than offset by an USD 238 million reduction in the level of fair value gains on the Group's hedge fund portfolio, which affected full year 2018 results with an USD 48 million loss compared to a favorable contribution of USD 191 million in 2017.

By region, growth in EMEA and North America due to improved underwriting results was partly offset by a weaker underwriting performance in Latin America, lower prior year reserve releases in the Asia Pacific region and lower reinsurance recoveries in the Group Reinsurance unit.

B. Performance *continued*

P&C combined ratio

%



The Group's **combined ratio** of 97.8 percent was 3.1 percentage points better than in the previous year, mainly due to a lower accident year loss ratio ex-catastrophes and lower claims from catastrophe events. These improvements were partially offset by an increase in the commission ratio as a result of shifts in the mix of business. Development of reserves established in prior years was 2.3 percent, reflecting the general strength of the Group's claims reserves, including the positive development of claims from the 2017 hurricanes Harvey, Irma and Maria.

In **EMEA** the combined ratio benefited from improvements in the underlying loss ratio and a lower level of catastrophes as well as more favorable prior year reserve development.

In **North America** the combined ratio improved largely due to lower levels of natural catastrophe losses with the underlying combined ratio excluding catastrophes at a similar level to the prior year.

The **Asia Pacific region** remained stable on an underlying level, with less favorable prior year reserves development accounting for the increase in the reported combined ratio.

In **Latin America**, the increase in the combined ratio was mainly driven by higher levels of exceptional large losses in Argentina and Mexico, the absence of a one-time benefit to the insurance premium tax in Brazil and very favorable prior year reserve development included in 2017.

Life

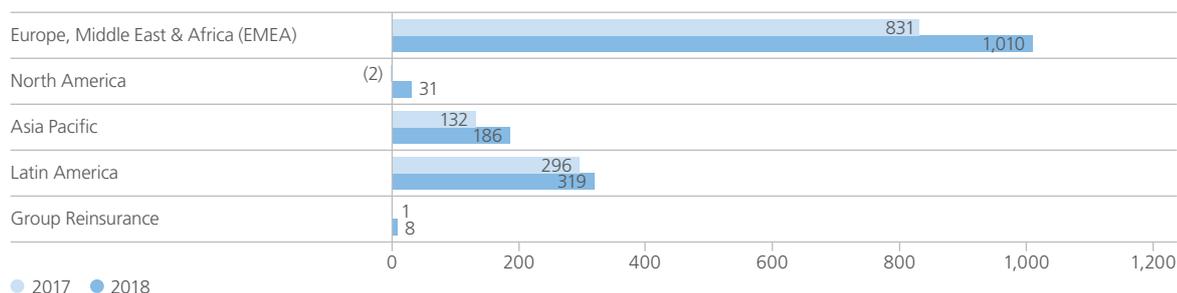
in USD millions, for the years ended December 31	2017	2018	Change
Insurance deposits	19,172	18,694	(2%)
Gross written premiums and policy fees	14,070	14,754	5%
Net investment income on Group investments	2,925	3,035	4%
Insurance benefits and losses, net of reinsurance	(9,259)	(9,702)	(5%)
Business operating profit	1,258	1,554	23%
Net policyholder flows ¹	7,705	7,425	(4%)
Assets under management ²	269,836	254,248	(6%)
Total reserves for life insurance contracts, net of reinsurance, and liabilities for investment contracts (net reserves)	215,424	202,024	(6%)

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 Business Operating Profit increased by 23 percent to USD 1.6 billion and included USD 20 million of charges related to the Group's restructuring.

In **EMEA**, the Business Operating Profit increased by 22 percent in U.S. dollars and 17 percent in local currencies, with most countries contributing to the performance. Growth was driven by a combination of portfolio growth, cost reductions and the absence of the impact from the change to UK indexation tax relief in 2017 as well as a number of one-time items relating to market movements and assumption changes.

In **Latin America**, higher business volumes supported earnings growth, with the Business Operating Profit increasing 8 percent in U.S. dollars and 28 percent in local currencies and reflects devaluation in a number of Latin American currencies. The result also includes a foreign exchange benefit of USD 36 million in Argentina, as a result of a portion of the domestic liabilities being backed by U.S. dollar denominated securities as well as integration costs of USD 8 million related to the acquisitions in Chile and Mexico.

Asia Pacific Business Operating Profit increased by USD 53 million, an increase of 40 percent in U.S. dollars and in local currencies. Growth was driven by portfolio growth across the region as well as a first time contribution of USD 27 million from the reinsurance agreement with OnePath Life, partially offset by initial integration costs of USD 16 million relating to the OnePath Life acquisition.

In **North America**, earnings increased by USD 33 million compared to the prior year due to favorable assumption updates and a one-time provision release.

Net inflows decreased by 4 percent compared to the prior year. The decrease was primarily driven by the absence of a single large additional contribution to an existing corporate protection scheme in North America.

Assets under management decreased by 6 percent due to negative foreign exchange effects and adverse market movements in the fourth quarter of 2018.

B. Performance *continued*

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	
	2017	2018	2017	2018	2017	2018
	Europe, Middle East & Africa (EMEA)	605	619	3,333	2,890	19.1%
North America	66	15	224	82	29.3%	18.3%
Asia Pacific	165	186	195	231	85.8%	82.2%
Latin America	164	161	1,117	1,437	23.2%	15.3%
Total	999	981	4,868	4,639	23.3%	24.1%

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.

Life new business APE increased 11 percent on a like-for-like basis after adjusting for currency, acquisitions and the disposal of the UK workplace savings business, with a reduction of 5 percent on a reported basis.

In **EMEA**, like-for-like growth was 5 percent with underlying growth in most countries. Growth was driven in particular by corporate protection and a large longevity transaction in the UK.

Asia Pacific saw growth of 17 percent on a like-for-like basis driven by growth in protection business across the region.

In **Latin America** APE sales increased by 40 percent on a like-for-like basis including a large corporate protection scheme in Chile as well as positive developments in Brazil, Mexico and Argentina.

New business value (NBV) increased 1 percent on a like-for-like basis after adjusting for currency, acquisitions and the disposal of the UK workplace savings business, and decreased 2 percent in U.S. dollars.

Underlying volume growth in EMEA, Latin America and Asia Pacific was offset by the absence of a large US corporate protection scheme in 2017.

EMEA saw an increase in new business value due to improvements in business mix and favorable currency translation effects.

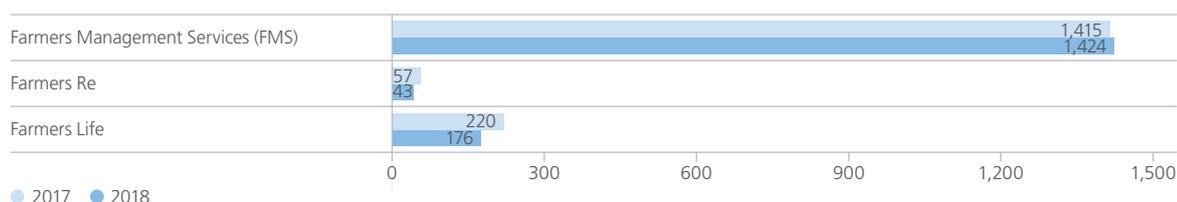
In **Latin America**, higher corporate business volumes were partially offset by unfavorable operating assumption updates and currency translation effects, while in **Asia Pacific** higher sales volumes and positive assumption updates were partially offset by business mix developments.

The **new-business margin** decreased by 2.9 percent on a like-for-like basis and improved by 0.8 percentage points to 24.1 percent on a headline basis.

Farmers

Farmers business operating profit (BOP)

in USD millions, for the years ended December 31



Farmers Management Services (FMS) Business Operating Profit was broadly stable compared to the prior year, with growth in the gross management result driven by higher gross earned premiums at Farmers Exchanges¹ offsetting USD 23 million of unfavorable mark-to-market impacts on a deferred compensation plan.

The managed gross earned premium margin remained stable at 7.0 percent.

Farmers Re Business Operating Profit was USD 14 million lower than in the prior year, as a consequence of the announced reduction in the all lines quota share participation from 8 percent to 1 percent, effective December 31, 2017. The combined ratio was 1 percentage point lower, driven by improved underwriting results at the Farmers Exchanges¹.

Farmers Life business operating profit was USD 43 million lower than in the prior year, driven by a USD 6 million negative impact from the annual assumption review compared to a USD 28 million positive benefit in the prior year, and slightly unfavorable mortality experience. New business APE was USD 6 million below prior year, while the new business value increased 13 percent driven by updated operating assumptions and the reduction in U.S. corporate tax rates.

Farmers Exchanges¹

The Farmers Exchanges¹ are owned by their policyholders. Farmers Group, Inc., a wholly owned subsidiary of the Group, provides certain non-claims administrative, management, and ancillary services to the Farmers Exchanges¹ as attorney-in-fact and receives fees for its services.

Financial information about the Farmers Exchanges¹ is proprietary to the Farmers Exchanges¹, 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	2017	2018	Change
Gross written premiums	19,908	20,325	2%
Gross earned premiums	19,841	20,171	2%

The **Farmers Exchanges¹** showed continued growth in top-line through 2018. Gross written premiums for continuing operations increased by 3.7 percent compared to prior year, with growth coming in all lines of business and driven by a combination of rate increases, improved retention as a result of Farmers' customer focused strategy, further expansion into the eastern United States and the agreement with Uber to provide commercial rideshare insurance in Georgia and Pennsylvania. In the eastern United States, the Farmers Exchanges¹ saw growth in gross written premiums of 33 percent year-on-year including the Uber rideshare business.

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

B. Performance *continued*

Top-line growth in continuing operations was partially offset by the run-off of discontinued operations, consisting primarily of two books of business: 21st Century outside of California and Hawaii and approximately USD 200 million of gross written premiums of business insurance distributed through independent agents, to which renewal rights were sold in February 2018. It is expected that the impact on growth from the run-off of this portfolio will be significantly reduced in 2019.

Group Functions and Operations

in USD millions, for the years ended December 31	2017	2018	Change
Holding and Financing	(450)	(443)	2%
Headquarters	(281)	(310)	(10%)
Total business operating profit	(731)	(753)	(3%)

The business operating loss reported under **Group Functions & Operations** increased by USD 22 million to USD 753 million. Lower recharges to business units more than offset reduced Headquarters expenses, while the Holding and Financing result benefited from gains on currency hedges. The 2018 figure also includes a USD 17 million charge relating to the Group's restructuring charges recognized within the business operating profit, compared with a charge of USD 38 million in 2017.

Non-Core Businesses

in USD millions, for the years ended December 31	2017	2018	Change
Zurich Legacy Solutions	(8)	43	nm
Other run-off	47	(7)	nm
Total business operating profit	39	37	(6%)

Non-Core business operating profit was USD 37 million reflecting the completion of a number of transactions, including the transfer of the German med-mal portfolio to Catalina and the sale of an Australian compulsory third-party liability portfolio to Enstar Group, as well as some expenses related to the reinsurance of the UK employers liability portfolio to Catalina announced in December 2018.

Investment performance

The net investment result on Group investments, before allocations to policyholders, of USD 6.3 billion decreased by USD 1.0 billion, or by 13 percent in both U.S. dollar terms and on a local currency basis, resulting in a net investment return on average Group investments of 3.34 percent, 51 basis points lower than in 2017.

Net investment income, predominantly included in the core business results, of USD 5.4 billion increased by USD 0.2 billion, or 3 percent in both U.S. dollar terms and on a local currency basis as a result of rising yields in the U.S., an increase in assets due to the QBE acquisition in Argentina and higher rental income from real estate property.

Net capital gains on investments and impairments included in the net investment result decreased by USD 1.1 billion to USD 0.9 billion, mainly as a result of lower returns from equity investments and widening credit spreads in 2018. As a result, capital gains from equity securities decreased significantly compared with the prior period, while hedge funds generated losses.

Total return on Group investments was 0.65 percent, 3.5 percentage points less than the same period of 2017. Total return includes the net investment result, net capital gains and the unfavorable impact from net unrealized capital gains before allocations to policyholders reported in shareholders' equity, which were a negative USD 5.1 billion compared with positive USD 486 million in 2017. This decline was mainly due to rising government bond yields in major markets after yields fell in 2017, and low performance of equity markets.

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	
	2017	2018	2017	2018	2017	2018	2017	2018
Investment cash	11	8	–	–	11	8	–	–
Equity securities	402	438	1,422	355	1,824	794	(77)	(218)
Debt securities	3,942	4,103	558	84	4,500	4,187	–	(32)
Investment property ¹	463	487	355	401	818	888	–	–
Mortgage loans	198	186	–	1	198	187	–	1
Other loans	415	382	9	14	424	397	8	12
Investments in associates and joint ventures	3	1	–	–	3	2	–	–
Derivative financial instruments	–	–	(310)	45	(310)	45	–	–
Investment result, gross, on Group investments	5,433	5,606	2,034	901	7,467	6,507	(69)	(238)
Investment expenses on Group investments	(218)	(219)	–	–	(218)	(219)	–	–
Investment result, net, on Group investments	5,215	5,387	2,034	901	7,249	6,288	(69)	(238)

¹ Rental operating expenses for investment property amounted to USD 98 million and USD 91 for the years ended December 31, 2018 and 2017, respectively.

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

in USD millions, as of December 31

	Total	
	2017	2018
Equity securities: available-for-sale	1,862	137
Debt securities: available-for-sale	9,720	6,567
Other	350	164
Gross unrealized gains/(losses) on Group investments	11,932	6,868
Less amount of unrealized gains/(losses) on investments attributable to:		
Life policyholder dividends and other policyholder liabilities	(6,779)	(4,857)
Life deferred acquisition costs and present value of future profits	(702)	(490)
Deferred income taxes	(928)	(476)
Non-controlling interests	(36)	(33)
Total¹	3,488	1,012

¹ Net unrealized gains/(losses) on Group investments include net gains arising on cash flow hedges of USD 363 million and USD 398 million as of December 31, 2018 and 2017, respectively.

C. Corporate governance and risk management

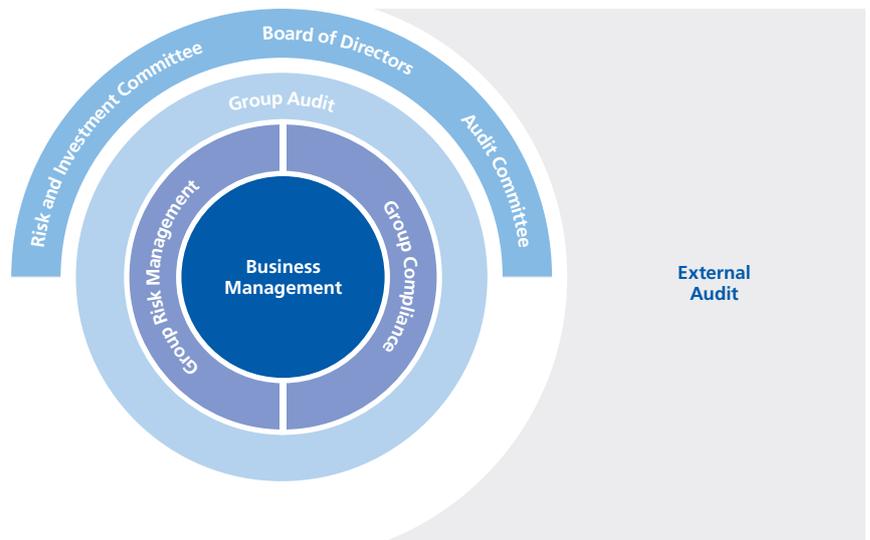
C.1 Corporate governance

C.1.1 Corporate governance

The 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, 2018



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 – Audit Committee and Risk and Investment Committee**

The Board is ultimately responsible for the supervision of the control and assurance activities. Its Audit and Risk and Investment committees receive regular updates from Group Risk Management, Group Compliance, Group Audit and external audit throughout the year.

- **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.1.2 Board of Directors

The Board, under the leadership of the Chairman, is responsible for determining the overall strategy of the Group and supervising senior management. 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, 2018



* 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, 2018

Board of Directors	Expiration of term of office
Michel M. Liès, Chairman	2019
Christoph Franz, Vice Chairman	2019
Joan Amble	2019
Catherine Bessant	2019
Dame Alison Carnwath	2019
Jeffrey Hayman	2019
Monica Mächler	2019
Kishore Mahbubani	2019
David Nish	2019

Claudia Biedermann, Company Secretary

C. Corporate governance and risk management *continued*

Key governance developments in 2018 – at a glance

as of December 31, 2018

Board of Directors	Executive Committee
<p>Election</p> <p>→ Michel M. Liès, elected as Chairman (as of April 4, 2018)</p>	<p>New appointments</p> <p>→ Amanda Blanc, CEO EMEA (Europe, Middle East & Africa) (as of October 5, 2018)</p> <p>Resignations</p> <p>→ Gary Shaughnessy, former CEO EMEA (as of December 31, 2018)</p>

At the AGM on April 4, 2018, all Board members were re-elected for another one-year term. Michel Liès was newly elected as Chairman of the Board. As members of the Board Remuneration Committee, the AGM elected Catherine Bessant, Christoph Franz, Michel Liès and Kishore Mahbubani. As independent voting rights representative, the shareholders elected lic. iur. Andreas G. Keller, attorney at law. See Zurich Insurance Group's Annual Report 2018, page 46 for further information on Board Committee membership in 2018.

David Nish has decided to retire from the Board as of the AGM 2019 and did not stand for re-election.

The Board proposed to shareholders that they elect or re-elect as follows:

- as members: Michel M. Liès, Joan Amble, Catherine Bessant, Dame Alison Carnwath, Christoph Franz, Jeffrey Hayman, Monica Mächler, Kishore Mahbubani, Jasmin Staiblin, Michael Halbherr 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 elected or re-elected by the shareholders, as proposed by the Board, at the AGM 2019 which took place on April 3, 2019. In addition, Jasmin Staiblin, Michael Halbherr and Barry Stowe were elected as new members to the Board (for a one-year term). Michel M. Liès was elected as Chairman of the Board.

After the AGM 2019, the Board Committees are composed 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.1.3 Executive Management

To the extent not reserved to the Board, management is delegated to the 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, 2018, to reflect both lines of business and geography, members of the ExCo included the CEO EMEA (Europe, Middle East & Africa), 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 CFO, the Group CIO, the Group COO, the Group CRO and Gary Shaughnessy as former CEO EMEA were also members of the ExCo as of December 31, 2018.

Executive Committee

Member	Position held
Mario Greco	Group Chief Executive Officer
Urban Angehrn	Group Chief Investment Officer
Amanda Blanc	CEO EMEA
Jeff Dailey	CEO of Farmers Group, Inc.
Claudia Dill	CEO Latin America
Jack Howell	CEO Asia Pacific
Alison Martin	Group Chief Risk Officer
George Quinn	Group Chief Financial Officer
Kathleen Savio	CEO North America
Gary Shaughnessy	Senior Advisor
James Shea	CEO Commercial Insurance
Kristof Terry	Group Chief Operating Officer

Changes to the Executive Committee (ExCo)

On October 5, 2018, Amanda Blanc was appointed CEO EMEA (Europe, Middle East & Africa) and became a member of the ExCo. Gary Shaughnessy, former CEO EMEA, decided to step down from his role as of the same date. To ensure a smooth transition, Gary Shaughnessy retired from the ExCo as of December 31, 2018.

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.

C. Corporate governance and risk management *continued*

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, 2018



For additional information on Corporate Governance, see the Annual Report 2018.

C.2 Risk management

C.2.1 Objectives of risk management

Taking risk is inherent to the insurance business, but such risk-taking needs to be made 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, identifies Zurich's principal 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 issues 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 2018, reporting was supplemented with in-depth risk insights into topics such as macroeconomic developments, information security management, climate change-related risks, and credit risk and country risk.

The Group assesses risks systematically and from a strategic perspective through its proprietary Total Risk Profiling™ (TRP) process, which allows Zurich to identify and evaluate the frequency and severity of a risk scenario. The Group then develops, implements and monitors improvements. The TRP process is integral to how Zurich deals with change, and is particularly suited to evaluate strategic risks, as well as risks to Zurich's reputation. At Group level, this process is on-going, with regular reviews with senior management.

The Group's risk appetite statement includes capital, liquidity, earnings volatility and non-financial metrics. The Group regularly measures and quantifies material risks to which it is exposed. Zurich's policy is to maintain capital consistent with an '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 strategic 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

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

Z-ECM ratio

C. Corporate governance and risk management *continued*

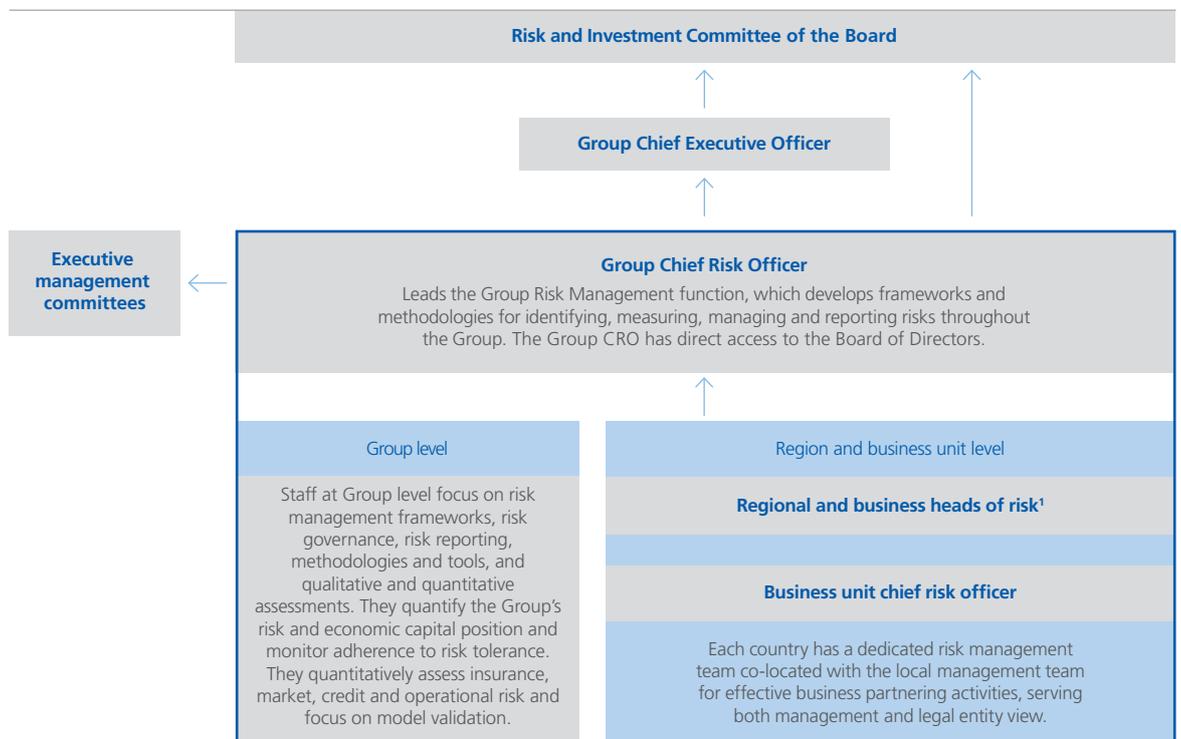
Risk-based remuneration

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 ensures such arrangements do not encourage inappropriate risk-taking. With regard to the latter, the Group Chief Risk Officer (Group CRO) consults with the other assurance, control and governance functions to provide the Group CEO with a review of risk factors to consider in the annual variable-compensation process. In consultation with these functions, the Group CRO also provides an individual assessment of Group key risk takers as part of their annual individual performance assessment.

For more information on Zurich's remuneration system, see the 'remuneration report.'

C.2.3 Risk management organization

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



The Group has committees covering oversight activities that encompass major business areas. The committees review certain risk management matters for their respective areas. At the local level, these oversight activities are conducted through risk and control committees.

¹ Farmers Chief Risk Officer has a matrix reporting line into the Group CRO.

The risk function is independent of the business by being a vertically integrated function where global risk employees directly report into the Group CRO, 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 assesses risks systematically and from a strategic perspective through its proprietary Total Risk Profiling™ (TRP) process, which allows Zurich to identify and evaluate the probability and severity of a risk scenario. The Group then develops, implements and monitors improvements. The TRP process is integral to how Zurich deals with change, and is particularly suited to evaluate strategic risks, as well as risks to Zurich's reputation. At Group level, this process is ongoing, with regular reviews with senior management.

C.3 Internal control system

Risk management and internal controls

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. For further information please see Zurich Insurance Group's Annual Report 2018, page 72.

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 material 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 with communication and training. Key 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 addressing significant risks, 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 (FAR), is responsible for reviewing all external communications and disclosures that contain information material to the financial position and/or performance of the Group. In particular, it reviews half-year and year-end IFRS financial results as well as the updates for the first three and nine months of the Group and related documents, e.g., related news releases and analysts' information. It reviews other external communications that contain material information as to the financial position and performance of the Group, proposals from Group Compliance regarding projects that have an impact on the Group and respective dealing restrictions as well as controls and procedures regarding the effectiveness of the Group's internal controls over financial reporting. It makes recommendations to the Group CFO.

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. Corporate governance and risk management *continued*

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 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, as well as outcomes and insights to management, the Audit Committee of the Board of Directors of ZIG and to the regional and local equivalent bodies.

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 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.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 and that timely follow-up action occurs. 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, 2019. As of January 1, 2019, the largest proportion of Z-ECM capital required was related to insurance risk, which comprised 49 percent of the total. Z-ECM capital required for market risk was the second-largest, comprising 45 percent.

Total Z-ECM capital required: USD 31.0 billion

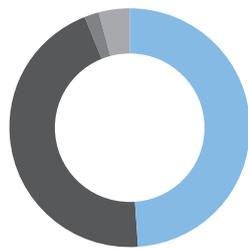
%, as of January 1, 2019



D.1 Insurance risk

The Group's insurance risk is diversified by geography, line of business, product and customer, supported by centralized purchasing of reinsurance.

Total Z-ECM capital required: USD 31.0 billion
%, as of January 1, 2019



● Insurance risk	49%
● Market risk, including investment credit risk	45%
● Other credit risk	2%
● Operational risk	4%

Key risk and capital indicators

Z-ECM, in USD billions

	Q4 2017	Q4 2018
Business risk	3.6	3.9
Life liability risk	1.5	2.1
Premium & reserve risk	7.5	7.1
Natural catastrophe risk	2.5	2.1

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:

- Strong 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 expenses tied 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, delegates authority to individuals based on their specific expertise, and sets appropriate underwriting and pricing guidelines. Technical reviews confirm whether underwriters perform within their authorized roles and adhere to underwriting philosophies and policies.

Property & Casualty 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 within sights 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 has an Emerging Risk Group, with cross-functional expertise from core insurance functions such as underwriting, claims and risk management to identify, assess and recommend actions for emerging risks.

D. Risk profile *continued*

Actions are underway to rebalance the portfolio, reducing exposure to long tail lines. Governance is in place to ensure appropriate focus on 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. In 2018, risk-based capital (RBC) for catastrophe risk increased as a result of growth in short-tail lines of business. 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 and ensure accumulations stay within intended exposure limits. 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 centrally. 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 modelled results. Risk modeling mainly addresses climate-induced perils such as windstorm, flood, tornado, and hail, and geologically-induced perils such as earthquake.

Zurich constantly strives to improve its modeling and improve data quality. It supplements internal knowledge with external knowledge (e.g., the Advisory Council for Catastrophes). Zurich is a governor sponsor of the Global Earthquake Model Foundation, a shareholder of PERILS AG, and a member of the 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. We are actively monitoring and managing our 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 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 7.0 billion and USD 6.5 billion for the years ended December 31, 2018 and 2017, respectively. Reinsurance programs are managed on a global basis, and therefore, net premium after reinsurance is monitored on an aggregated basis.

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

¹ In 2018, the crop business line in North America was reclassified, resulting in a USD 1.7 billion shift from special lines to property.

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

in USD millions, for the year ended December 31, 2017		Motor	Property	Liability	Special lines	Worker injury	Total
Europe, Middle East & Africa		4,459	3,869	1,927	1,895	335	12,486
North America		1,750	2,691	3,175	3,864	2,934	14,414
Other regions		1,472	1,184	341	1,646	138	4,781
Total		7,681	7,745	5,443	7,405	3,408	31,681

Analysis of sensitivities for property and casualty risks

The following tables show the sensitivity of net income before tax and the sensitivity of net assets as a result of adverse developments in the net loss ratio by one percentage point, using the Group's effective income tax rate. 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 table below, 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, 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)

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

in USD millions, for the year ended December 31, 2017		Europe, Middle East & Africa	North America	Asia Pacific	Latin America	Reinsurance	Total
+1% in net loss ratio							
Net income before tax		(119)	(105)	(19)	(19)	1	(260)
Net assets		(79)	(70)	(13)	(13)	1	(174)

D. Risk profile *continued*

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.

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 to be affected across the board by a change in any subset of risks than an undiversified portfolio. As a result, the offsetting effects between unit-linked and traditional business reduce some of the risk associated with the life business.

D.1.5 Management of Life business insurance risk

The Group has local product development committees and a Group-level committee, which analyze potential new life products that could significantly increase or change the nature of the Group's risks. The Group regularly reviews the suitability and the potential risks of existing life products.

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 are linked to the value of funds under management, and hence are 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 inability 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.

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 major clients have switched into less risky investment divisions. See heading 'other contracts' in note 7 of the consolidated financial statements for additional information.

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 7.4 billion in 2018 (2017: USD 8.2 billion) and in the UK for an amount of USD 0.5 billion in 2018 (2017: USD 0.6 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 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, under certain conditions which 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	
	2017	2018	2017	2018	2017	2018
Life						
Europe, Middle East & Africa	46,802	41,229	81,182	77,756	127,984	118,985
of which:						
United Kingdom	18,699	15,323	3,468	3,271	22,167	18,594
Germany	17,178	15,976	39,638	36,980	56,817	52,956
Switzerland	731	634	18,123	17,294	18,854	17,928
Italy	1,073	1,568	4,155	4,521	5,228	6,089
Ireland	3,133	2,347	2,260	2,021	5,393	4,368
Spain	856	699	11,182	11,415	12,038	12,114
Zurich International	4,784	4,339	277	309	5,061	4,648
Rest of Europe, Middle East & Africa	349	342	2,078	1,946	2,427	2,288
North America	9,298	9,241	841	893	10,139	10,135
Asia Pacific	584	539	2,731	2,791	3,315	3,330
Latin America	13,687	13,159	5,075	5,385	18,762	18,544
Group Reinsurance	–	–	–	2	–	2
Eliminations	–	–	(3)	(13)	(3)	(13)
Subtotal	70,371	64,168	89,826	86,814	160,197	150,982
Other businesses	5,042	4,598	9,404	9,474	14,446	14,072
Total	75,413	68,766	99,230	96,288	174,643	165,054

D. Risk profile *continued*

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 2018' (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 introduced in 2017 has been successfully implemented and applied 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 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 21.0 percent and 19.7 percent as of December 31, 2018 and December 31, 2017, respectively. The cession rate for Life was 7.0 percent and 8.0 percent as of December 31, 2018 and December 31, 2017, respectively.

For more information, see Zurich Insurance Group Annual Report 2018, pages 120 - 149.

D.2 Market risk including investment credit risk

In 2018 the Group's overall market risk position remained stable and in line with our risk appetite. Interest rate risk contribution has moderately increased following liability modelling refinements, partially off-set by a lower credit risk position.

Total Z-ECM capital required: USD 31.0 billion
%, as of January 1, 2019



Key risk and capital indicators

Z-ECM, in USD billions

	Q4 2017	Q4 2018
Market risk	13.6	13.9

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
- Default 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 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.

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.

D. Risk profile *continued*

In compliance with Swiss insurance regulation, the Group's policy prohibits speculative trading in derivatives, meaning a pattern of '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.

D.2.1 Risk from equity securities and real estate

The Group is exposed to risks arising from price fluctuations in 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 quickly change the exposure to the equity markets that are key for Zurich within a short time frame through the use of derivatives.

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 loss resulting from changes in interest rates, including changes in the shape of yield curves. The Group is exposed to interest-rate risk from debt securities, reserves for insurance contracts, liabilities for investment contracts, debt issued by 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 expected probability of default, expected losses in cases of defaults of issuers, the uncertainty of default probabilities and losses.

Returns on unit-linked contracts, whether classified as insurance or investment contracts, are at risks borne by policyholders; 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 derived from the value 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 for the fair value for Group investments before tax as of 2018 was a negative USD 9.9 billion (negative USD 10.7 billion as of 2017) for a 100-basis-point increase in interest rate. For a 100-basis-point decrease in interest rates, the sensitivity was USD 11.1 billion (USD 12.0 billion as of 2017). For a 10 percent decline in equity markets, Group investments would have dropped in value by USD 1.1 billion compared to USD 1.2 billion as of 2017. A 100-basispoint increase in credit spreads would have resulted in a decrease of USD 5.2 billion compared to USD 5.4 billion as of 2017.

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 that all interest rates in the respective currencies would move in parallel. 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 that all stock markets move in the same way. The sensitivity analysis does not take into account actions that might be taken to mitigate losses. Such actions may involve changing the asset allocation, for example through selling and buying assets. The sensitivities do not indicate the 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 three tables below 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 [derived] from the embedded-value models. They are calibrated to match life insurance liabilities' dependence on developments in financial markets, taking into account interest rates, equity and property values. 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 the market risk that the Group faces. The following tables 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 the 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.

Analysis of economic sensitivities for interest-rate risk

The following table shows the estimated net impact before tax of a 100-basis point increase/decrease in yield curves after consideration of hedges in place, as of December 31, 2018 and 2017.

Economic interest rate sensitivities*	In USD millions, as of December 31	
	2017	2018
100 basis point increase in the interest rate yield curves		
Property and casualty	(278)	(180)
Life¹	244	655
Rest of the business	(275)	(192)
100 basis point decrease in the interest rate yield curves		
Property and casualty	100	(8)
Life¹	(1,127)	(2,103)
Rest of the business	236	151

¹ Modeling enhancements introduced in 2018 for the German Life business that extended the maximum maturity to 60 years compared to 40 years previously.

D. Risk profile *continued*

Analysis of economic sensitivities for equity risk

The following 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, 2018 and 2017 respectively.

Economic equity price sensitivities*	In USD millions, as of December 31	2017	2018
	10% decline in stock markets		
Property & Casualty		(642)	(593)
Life		(422)	(395)
Rest of the business		(74)	(83)

Analysis of economic sensitivities for credit spread risk

The following table shows the estimated net impact before tax from a 100-basis point increase in corporate credit spreads, as of December 31, 2018 and 2017 respectively. The sensitivities apply to all fixed income instruments, excluding government, supranational and similar debt securities. For the 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	2017	2018
	100 basis point increase in credit spreads		
Property & Casualty		(1,694)	(1,614)
Life		(3,095)	(3,048)
Rest of the business		(564)	(338)

* 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 Risk 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	2017		2018	
		USD millions	% of total	USD millions	% of total
Rating					
AAA		37,426	25.2%	35,283	25.2%
AA		39,664	26.7%	37,362	26.7%
A		26,011	17.5%	20,998	15.0%
BBB		38,360	25.9%	39,529	28.3%
BB and below		6,033	4.1%	5,341	3.8%
Unrated		767	0.5%	1,357	1.0%
Total		148,261	100.0%	139,870	100.0%

The table above shows the credit risk exposure of debt securities, by credit rating. As of December 31, 2018, 95.2 percent of the Group's debt securities was investment grade and 25.2 percent was rated 'AAA.' As of December 31, 2017, 95.4 percent of debt securities was investment grade and 25.2 percent was rated 'AAA.'

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

The risk-weighted average credit rating of the Group's debt securities portfolio is 'A-' in 2018, compared with 'A-' in 2017.

As of December 31, 2018, 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 31.4 billion (44 percent) was secured. As of December 31, 2017, 50 percent of the Group's debt portfolio was invested in government-related securities. In all other categories, a total of USD 30.0 billion (41 percent) was secured. Industry classifications in the fixed income portfolio were revised during 2018 to better align with the management view of the portfolio and financial industry practice. The 2017 figures were restated accordingly.

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 4.4 billion and USD 4.9 billion to the German central government or the German federal states as of December 31, 2018 and 2017, respectively. For more information, see the 'mortgage loans and other loans' section.

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 8.6 billion as of December 31, 2018 and USD 8.2 billion as of December 31, 2017. The risk-weighted average rating of the overall cash portfolio was 'A-' as of December 31, 2018 and December 31, 2017. The ten largest global banks represent 77 percent of the total, whose risk-weighted average rating was 'A+' as of December 31, 2018 and 'A' as of December 31, 2017.

Mortgage loans and other loans

Mortgage loans amounted to USD 6.6 billion as of December 31, 2018 and USD 7.0 billion as of December 31, 2017. The Group's largest mortgage loan portfolios are held in Switzerland (USD 3.4 billion) and in Germany (USD 2.3 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 7.6 billion reported loans as of December 31, 2018, 62 percent are government-related, of which 94 percent are to the German central government or the German federal states. As of December 31, 2018, USD 4.7 billion were rated as 'AAA' (61 percent) compared with 5.1 billion as of December 31, 2017; USD 0.7 billion as 'AA' (10 percent) compared to 0.7 billion as of December 31, 2017; USD 0.3 billion as 'A' (4 percent) compared with 0.6 billion as of December 31, 2017; USD 1.2 billion as 'BBB' and below (16 percent) compared with 1.2 billion as of December 31, 2017; and USD 0.7 billion as unrated (10 percent) compared with 1.2 billion as of December 31, 2017.

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. Risk profile *continued*

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. 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 for additional information on foreign currency translation and transactions.

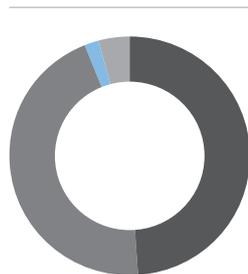
Sensitivity of the Group's total IFRS equity to exchange rate fluctuations	in USD millions, as of December 31	
	2017	2018
10% increase in		
EUR/USD rate	467	336
GBP/USD rate	245	215
CHF/USD rate	447	350
BRL/USD rate	147	163
Other currencies/USD rates	645	624

The sensitivities show the effects of a change in 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 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.3 Other credit risk

Our credit exposures related to reinsurance assets were of sustained high credit quality and remained basically unchanged in 2018 compared with 2017.

Total Z-ECM capital required: USD 31.0 billion %, as of January 1, 2019



● Insurance risk	49%
● Market risk, including investment credit risk	45%
● Other credit risk	2%
● Operational risk	4%

Key risk and capital indicators

Z-ECM, in USD billions

	Q4 2017	Q4 2018
Reinsurance credit risk	1.2	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 for the largest counterparties, certain insurance products. There was no unapproved material exposure in excess of the Group's limits for counterparty aggregation as of December 31, 2018 nor December 31, 2017.

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 2 million and USD 16 million as of December 31, 2018 and 2017, respectively. See note 22 of the consolidated financial statements for undrawn loan commitments.

D. Risk profile *continued*

D.3.1 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, 2018 and 2017 respectively, 52 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, 50 percent was ceded to captive insurance companies in 2018, and 51 percent in 2017.

Reinsurance assets included reinsurance recoverables (the reinsurers' share of reserves for insurance contracts) of USD 21.3 billion and USD 21 billion, and receivables arising from ceded reinsurance of USD 1.1 billion and USD 1.2 billion as of December 31, 2018 and 2017, respectively, gross of allowance for impairment. Reserves for potentially uncollectible reinsurance assets amounted to USD 113 million as of December 31, 2018 and USD 94 million as of December 31, 2017. 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 table below 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 0.2 billion to USD 9.6 billion per December 31, 2018, compared to previous year.

Reinsurance assets and unsecured reinsurance assets by rating of reinsurer and captive	as of December 31		2017				2018	
			Unsecured reinsurance assets		Reinsurance assets		Unsecured reinsurance assets	
	USD	% of	USD	% of	USD	% of	USD	% of
	millions	total	millions	total	millions	total	millions	total
Rating								
AAA	–	0.0%	–	0.0%	9	0.0%	9	0.1%
AA	5,939	26.9%	5,378	42.5%	5,633	25.3%	5,173	40.8%
A	10,562	47.9%	4,619	36.5%	10,882	48.9%	4,740	37.4%
BBB	1,634	7.4%	974	7.7%	1,572	7.1%	983	7.8%
BB	247	1.1%	57	0.5%	447	2.0%	232	1.8%
B and below	638	2.9%	168	1.3%	645	2.9%	37	0.3%
Unrated	3,036	13.8%	1,446	11.4%	3,085	13.9%	1,510	11.9%
Total¹	22,056	100.0%	12,642	100.0%	22,273	100.0%	12,685	100.0%

¹ The value of the collateral received amounts to USD 9.6 billion and USD 9.4 billion as of December 31, 2018 and 2017, respectively.

D.3.2 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.

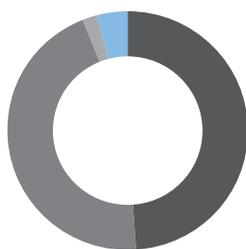
Receivables that are past due but not impaired should be regarded as unsecured, but some of these receivable positions may be offset by collateral. The Group reports internally on Group past-due receivable balances and strives to keep the balance of past-due positions as low as possible, while taking 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.4 Operational risk

The Group established a dedicated framework for key focus areas such as information security and cyber risk.

Total Z-ECM capital required: USD 31.0 billion
%, as of January 1, 2019



● Insurance risk	49%
● Market risk, including investment credit risk	45%
● Other credit risk	2%
● Operational risk	4%

Key risk and capital indicators

Z-ECM, in USD billions

	Q4 2017	Q4 2018
Operational risk	0.8	1.2

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, systems or from external events such as external fraud, catastrophes, or failure in outsourcing arrangements. Zurich has a framework to identify, assess, quantify, mitigate, 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 loss events exceeding a threshold determined per Zurich’s risk policy manuals. Remedial action is taken to avoid a recurrence of such operational loss events.
- Conducts risk assessments where operational risks are identified for key business areas. Risks identified and assessed above a certain threshold must be mitigated. Risk mitigation plans are documented and tracked on an ongoing basis. In the assessments, the Group uses such sources of information as the Total Risk Profiling™ process, internal control assessments, and audit findings, as well as scenario modeling and loss event data.

The Group has specific processes and systems in place to focus on high-priority operational matters such as managing information security and third-party suppliers, as well as combating fraud.

Managing information security, including cyber risk, remains a key focus for Zurich. To measure the global exposure to this risk, a dedicated framework has been established, resulting in substantial improvements achieved throughout the year. As part of the introduction of this framework, capabilities were upgraded across the risk function and more attention was paid to types of risk arising from Zurich Insurance Group’s ongoing digital transformation, with particular focus on information security, emerging technologies, innovation, and third-party management.

Our customer focused organization, with enhanced capabilities and increased attention to operational resilience, maintains our core business services by upgrading our continuous reviews and assurance around our existing business continuity program. Zurich pays increasing attention to the protection and privacy of data for all of our stakeholders. We have done this by revising corresponding risk policies and governance, which has led to a more precise alignment to new legal and regulatory requirements and the changing operating environments.

With the increased use of third parties and suppliers and amid continual changes in regulatory requirements, the Group is providing greater support to the organization in third-party and supplier risk management practices. This is taking place alongside an ongoing focus on critical suppliers. It includes identifying the risks and obtaining assurance over key controls to affirm that suppliers can deliver services as required through the entire lifecycle of the sourcing arrangements. Assessments include ensuring that suppliers remain financially viable, comply with Zurich’s security and resilience requirements, and limit the Group’s exposure to geographic and supplier concentration risks.

Preventing, detecting and responding to fraud are embedded in Zurich’s business. 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. Risk profile *continued*

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 carriers 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 monitors that the liquidity of assets stays in line with the liquidity needs. During 2018, 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.

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. See note 6 of the consolidated financial statements 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.

D.6 Other material risks

D.6.1 Strategic risk

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

Strategic risks can arise from:

- Inadequate assessment of strategic plans
- Ineffective implementation 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 2019 and beyond. These include: macro-economic risks such as financial stress due to geopolitical uncertainties and monetary policy; long-term capital and liquidity impacts of new post Brexit regulatory regime in the UK; changes affecting competitiveness in markets where Zurich is active; information security including cyber risks and digital transformation. The ExCo 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 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.

D.6.2 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 type of risk helps reduce such threats.

The Group aims to preserve its reputation by adhering to applicable laws and regulations, and by following the core values and principles of the Group's code of conduct, which promotes integrity and good business practice. The Group centrally manages certain aspects of reputation risk, for example, communications, through functions with the appropriate expertise.

D.6.3 Climate-change Risk

The Total Risk Profiling™ is the Group's primary tool to assess strategic risks throughout the Group and in 2018 was used to update our climate risk assessment. The assessment confirmed that both physical and transition risks remain manageable and foreseeable near-term (less than five years), whereas long-term risks (5–10 years and beyond) remain elevated and highly uncertain. In our current assessment, long-term risks are more likely to be driven by physical effects of climate change, in line with our climate risk score card which suggests that transition to a two-degree scenario became less likely in 2018.

More information can be found in Zurich's Task Force on Climate-related Financial Disclosures (TCFD) and in our report Managing the impacts of climate change: risk management responses.

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 2018, pages 196 to 198; 199 to 202; 241 to 248. 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 2018, pages 181 to 191.

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.

Asset valuation MCBS vs IFRS

In USD millions, as of December 31

	2017 (SST)	2018 (SST)	Evolution 2017–2018 (SST)	2018 (IFRS)	Difference 2018 (IFRS – SST)
Market-consistent value of investments					
Real estate	12,238	12,351	112	12,351	0
Shareholdings	19	36	17	36	(0)
Fixed income securities	133,139	124,068	(9,072)	123,163	904
Loans	10,410	9,130	(1,280)	7,614	1,516
Mortgages	7,501	6,934	(566)	6,556	379
Equities	8,519	7,644	(875)	7,644	0
Other investments.	25,033	25,298	265	25,283	15
Collective investment schemes	4,159	3,682	(477)	3,667	15
Alternative investments	3,440	3,308	(132)	3,308	0
Other capital investments	17,434	18,308	874	18,308	0
Total Investments	196,860	185,461	(11,399)	182,647	2,814
Financial investments from unit-linked life insurance	128,591	133,047	4,457	109,733	23,314
Receivables from derivative financial instruments	903	899	(5)	899	0
Market-consistent value of other assets					
Cash and cash equivalents	8,269	8,669	400	8,649	19
Receivables from insurance business	11,237	10,739	(498)	10,571	168
Other receivables	3,374	3,574	200	3,563	11
Other assets	5,244	5,294	50	58,233	(52,939)
Total other assets	28,124	28,276	152	81,016	(52,740)
Total market-consistent value of assets	354,477	347,682	(6,795)	374,295	(26,612)

E. Valuation *continued*

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

In USD millions, as of December 31

	2017 (SST)	2018 (SST)	Evolution 2017–2018 (SST)	2018 (IFRS)	Difference 2018 (IFRS – SST)
Best estimate liabilities (BEL)					
Best estimate of insurance liabilities	(317,983)	(292,304)	25,680	(297,529)	5,225
Direct insurance: life insurance business (excluding ALV)	(98,832)	(94,743)	4,089	(107,320)	12,578
Direct insurance: non-life insurance business	(66,108)	(63,182)	2,926	(73,498)	10,316
Direct insurance: health insurance business	0	0	0	0	0
Direct insurance: unit-linked life insurance business	(146,012)	(129,532)	16,479	(109,954)	(19,578)
Direct insurance: other business	(457)	(470)	(13)	(475)	5
Outward reinsurance: life insurance business (excluding ALV)	(2,215)	(694)	1,521	(2,144)	1,450
Outward reinsurance: non-life insurance business	(4,353)	(3,676)	676	(4,131)	455
Outward reinsurance: health insurance business	0	0	0	0	0
Outward reinsurance: unit-linked life insurance business	0	1	1	1	0
Outward reinsurance: other business	(6)	(6)	0	(6)	0
Reinsurers' share of best estimate of insurance liabilities	38,716	17,567	(21,149)	21,197	(3,630)
Direct insurance : life insurance business (excluding ALV)	4,998	4,916	(82)	6,204	(1,288)
Direct insurance: non-life insurance business	7,102	7,469	368	8,616	(1,147)
Direct insurance: health insurance business	0	0	0	0	0
Direct insurance : unit-linked life insurance business	21,656	(0)	(21,657)	0	(0)
Direct insurance: other business	0	0	0	0	0
Outward reinsurance: life insurance business (excluding ALV)	266	317	51	313	4
Outward reinsurance: non-life insurance business	4,695	4,865	171	6,064	(1,199)
Outward reinsurance: health insurance business	0	0	0	0	0
Outward reinsurance: unit-linked life insurance business	0	0	0	0	0
Outward reinsurance: other business	0	0	0	0	0
Market consistent value of other liabilities					
Non-technical provisions	(4,450)	(3,397)	1,053	(3,386)	(10)
Interest-bearing liabilities similar to debt capital	(11,744)	(12,345)	(600)	(12,012)	(333)
Liabilities from derivative financial instruments	(214)	(325)	(111)	(325)	0
Deposits retained on ceded reinsurance	(431)	(432)	(1)	(612)	180
Liabilities from insurance business	(4,327)	(3,612)	715	(3,584)	(29)
Other liabilities	(13,632)	(13,693)	(61)	(47,855)	34,162
Total BEL plus market-consistent value of liabilities	(314,064)	(308,540)	5,525	(344,105)	35,565
Difference between market-consistent assets and market-consistent debt capital	40,413	39,142	(1,271)	30,189	8,953

Subordinated debt eligible as AFR included in Interest-bearing liabilities similar to debt capital in 2018 and as well as in the 2017 comparatives.

E.2.1 Evolution of assets since 2017

Total Investments

The market value of Investments decreased by USD 11.4 billion from USD 196.9 billion as of December 31, 2017 to USD 185.5 billion as of December 31, 2018.

- The movement is primarily driven by a decrease of USD 9 billion in **Fixed income securities** from USD 133.1 billion in December 31, 2017 to USD 124.1 billion in December 31, 2018, due to unfavorable foreign currency translation effects of USD 5 billion, drop in market values following rising yields mainly in the US of USD 1.6 billion, in Switzerland of USD 1 billion and in Germany of USD 0.7 billion. Furthermore an increase in net sales, as a result of a shift in the strategic asset allocation from debt securities to Equities and Asset backed securities, contributed to the decrease mainly in Switzerland of USD 1.5 billion and in the UK of USD 0.5 billion. These decreases were partially offset by additions in Spain of USD 1 billion, in the US of USD 0.6 billion and the acquisition of Euro America portfolio in Chile of USD 0.6 billion.
- **Loans** decreased by USD 1.3 billion from USD 10.4 billion in December 31, 2017 to USD 9.1 billion in December 31, 2018. The decrease is largely due to unfavorable currency movement of USD 0.5 billion, maturities and net sales driven by a change in the asset allocation mainly in Switzerland of USD 0.9 billion, in Germany and in the UK of USD 0.5 billion offset by change in fair value of USD 0.8 billion mainly in Switzerland and in the UK.
- **Mortgages** decreased by USD 0.6 billion from USD 7.5 billion in December 31, 2017 to USD 6.9 billion in December 31, 2018. The decrease is mainly due to an unfavorable currency movements of USD 0.2 billion, maturities mostly in Germany of USD 0.2 billion and net sale in Switzerland of USD 0.1 billion, following a change in the asset allocation.
- **Equities** decreased by USD 0.9 billion from USD 8.5 billion in December 31, 2017 to USD 7.6 billion in December 31, 2018. The decrease is primarily due to unfavorable currency movements of USD 0.2 billion, a decrease in market values of USD 1.5 billion, despite increased volume of investments mainly in Switzerland, Germany and in the US due to changes in the asset allocation. These decreases were offset by net acquisitions in the US of USD 0.4 billion, Italy of USD 0.2 billion and in Switzerland of USD 0.2 billion.
- These decreases have been partially offset by an increase in **Other Investments** of USD 0.3 billion from USD 25 billion in December 31, 2017 to USD 25.3 billion December 31, 2018 driven by changes in asset allocation of USD 0.6 billion, as offset by negative effects of currency translation of USD 0.3 billion. This increase resulted from increases in Asset backed securities by USD 1 billion mainly in the US due to net acquisition of USD 1.8 billion, partially offset by negative market revaluation of USD 0.6 billion, in Private equity of USD 0.2 billion mostly due to positive market revaluation, offset by a decrease of USD 0.5 billion in Investment Funds. This is mostly due to net sales in the US of USD 0.6 billion and in Spain of USD 0.2 billion, as well as a reduction in fair value of USD 0.3 billion as offset by acquisitions in Italy of USD 0.3 billion and in Germany of 0.3 billion. Additionally a USD 0.3 billion decrease in Hedge funds, due to changes in fair value.
- **Real estate** increased by USD 0.2 billion from USD 12.2 billion in December 31, 2017 to USD 12.4 billion in December 31, 2018 as a result of increases in fair values across many regions of USD 0.4 billion, net acquisition in Italy of USD 0.2 billion and in the US of USD 0.2 billion mostly offset by an unfavorable currency movements of USD 0.3 billion and net sales of USD 0.4 billion in Switzerland.

E. Valuation *continued*

Financial investments from unit-linked life insurance

Financial investments from unit-linked life insurance increased by USD 4.5 billion from USD 128.6 billion in December 31, 2017 to USD 133.1 billion in December 31, 2018. The increase is driven by the reclassification of USD 21.1 billion from reinsurers' share of best estimate of unit-linked insurance reserves and positive market movements in Brazil of USD 1.3 billion mostly offset by an unfavorable currency movement of USD 8.6 billion and negative market movements and lapses mainly in the UK of USD 9.4 billion

Other Assets

The market-consistent value of total other assets increased by USD 0.2 billion from USD 28.1 billion in 2017 to USD 28.3 billion in 2018.

- **Cash and cash equivalents** increased by USD 0.4 billion from USD 8.3 billion in December 31, 2017 to USD 8.7 billion in December 31, 2018, mainly due to higher operational cash resulting from changes in the timing of settlements.
- **Receivables from insurance business** decreased by USD 0.4 billion from USD 11.2 billion in December 31, 2017 to USD 10.8 billion in December 31, 2018, mostly due to reduction in Deposits made under assumed reinsurance treaties.

E.2.2 Evolution of liabilities since 2017

Best estimate of insurance liabilities

The market value *Best estimate of insurance liabilities* decreased by USD 25.7 billion from USD 318 billion as of December 31, 2017 to USD 292.3 billion as of December 31, 2018.

- **Direct insurance: unit-linked life insurance business** decreased by USD 16.5 from USD 146 billion in December 31, 2017 to USD 129.5 billion in December 31, 2018, mainly due to a favorable currency translation of USD 8.3 billion and by negative market movements and lapses in UK, partially offset by positive market movements in Brazil of USD 1.3 billion.
- **Direct insurance: life insurance business (excluding ALV)** decreased by USD 4.1 billion from USD 98.8 billion in December 31, 2017 to USD 94.7 billion in December 31, 2018. This is mainly due to a favorable currency translation of USD 3.7 billion, decreases in Switzerland in corporate life and individual savings and annuity products, as well as in Germany, mostly due to higher number of maturities in individual traditional savings business. These decreases are mostly offset by an increase in Spain in individual savings products distributed via Bansabadell Vida.
- **Direct insurance: non-life insurance business** decreased by USD 2.9 billion from USD 66.1 billion in December 31, 2017 to USD 63.2 billion in December 31, 2018 is mainly due to a favorable currency translation of USD 1.6 billion, the divestment of German Medical Malpractice, Australian Third Party Motor, and UK Building Guarantee portfolios for a total of USD 0.6 billion, a reduction in the US of USD 0.6 billion, driven by longer payment patterns and higher discount rates offset by an increase of USD 0.3 billion for onboarding of QBE business mainly in Argentina.
- **Outward reinsurance** decreased by USD 2.2 billion from USD 6.6 billion in December 31, 2017 to USD 4.4 billion in December 31, 2018.
 - Mainly due to **Outward reinsurance: life insurance business (excluding ALV)** which decreased by USD 1.5 billion from USD 2.2 billion in December 31, 2017 to USD 0.7 billion in December 31, 2018 reflecting the positive economic value of the reinsurance agreement with OnePath Life entered into in May 2018.
 - **Outward reinsurance: non-life insurance business** decreased by USD 0.7 billion from USD 4.4 billion in December 31, 2017 to USD 3.7 billion in December 31, 2018 mainly due to the cancellation of the reinsurance agreement with Farmers Exchanges¹ where prior accident year reserves of USD 0.4 billion are in run-off.

Reinsurers' share of best estimate of insurance liabilities

Shares of reinsurers in the insurance reserves decreased by USD 21.1 billion from USD 38.7 billion in December 31, 2017 to USD 17.6 billion in December 31, 2018. The decrease is mainly due to a reclassification of USD 21.1 billion from **Direct insurance: unit-linked life insurance business** to Financial investments from unit-linked life insurance. The reclassification has a nil impact to the AFR.

- These decreases have been partially offset by an increase in **Direct insurance: non-life insurance business** by USD 0.4 billion from USD 7.1 billion in December 31, 2017 to USD 7.5 billion in December 31, 2018. The increase is mainly due to recoveries on individual large losses in the US.
- **Outward reinsurance: non-life insurance business** increased by USD 0.2 billion from USD 4.7 billion in December 31, 2017 to USD 4.9 billion in December 31, 2018, driven by changes in loss reserves for large claims.

Other liabilities

The market value of other liabilities has decreased by USD 1 billion from USD 34.8 billion as of December 31, 2017 to USD 33.8 billion as of December 31, 2018

- **Non-technical provisions** decreased by USD 1 billion from USD 4.4 billion in December 31, 2017 to USD 3.4 billion in December 31, 2018. The pension fund liability has decreased by USD 1 billion mainly in UK mostly due to changes in financial assumptions. In addition, there was an extraordinary contribution for the Farmers pension plan reducing the net pension obligation.
- **Liabilities from insurance business** decreased by USD 0.7 billion from USD 4.3 billion in December 31, 2017 to USD 3.6 billion in December 31, 2018 mainly due to a reclassification with an equal and offsetting movement within Other miscellaneous liabilities of USD 1 billion.

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

E. Valuation *continued*

- These decreases has been offset by an increase in **Interest-bearing liabilities** similar to debt capital by USD 0.6 billion from USD 11.7 billion in December 31, 2017 to USD 12.3 billion in December 31, 2018, mostly due to issuance of senior debts in support of certain reinsurance agreements in ZIC of USD 0.7 billion and in Australia of USD 0.8 billion, for general corporate purposes and to refinance external credit agreements, mostly offset by changes in market value of USD 0.8 billion in Subordinated debts.

E.2.3 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, 2018

Total IFRS value of investments		182,647
	Bonds held-to-maturity measured at fair value in MCBS	537
Fixed income securities	The reclassification to held for sale is not applicable in MCBS	368
Mortgages	Mortgage loans measured at fair value in MCBS	379
	Other loans measured at fair value in MCBS	1,508
Loans	The reclassification to held for sale is not applicable in MCBS	8
Other investments	The reclassification to held for sale is not applicable in MCBS	15
Total market-consistent value of Investments (SST)		185,461

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

The investments for unit-linked insurance are designated at fair value through profit or loss in IFRS. Therefore, no measurement difference arises in MCBS. However, under IFRS, the Group reclassified assets of USD 23.3 billion as 'held-for-sale' following agreements to sell certain businesses in the UK. This reclassification is not applicable in MCBS.

SST – IFRS valuation difference

in USD millions, as of December 31, 2018

Total IFRS value of financial investments from unit-linked life insurance		109,733
Financial investments from unit-linked life insurance	The reclassification to held for sale is not applicable in MCBS	23,314
Total market-consistent value of financial investments from unit-linked life insurance (SST)		133,047

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.

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.

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 23.9 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, 2018

Total IFRS value of other assets		81,016
	Deferred acquisition costs: Value set to zero in MCBS	(19,547)
	Deferred origination costs: Value set to zero in MCBS	(419)
	Deferred tax assets: Value set to zero in MCBS	(1,125)
	Goodwill and other intangible assets: Value set to zero in MCBS	(8,202)
	Property and equipment: Real estate held for own use is at fair value in MCBS	432
	The reclassification to held for sale is not applicable in MCBS	(23,915)
Other assets	Other differences	36
Total market-consistent value of other assets (SST)		28,276

E.2.4 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. 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.

Illustrative breakdown of Unearned Premium Reserve (UPR)

	IFRS	MCBS
Unearned premium	Underwriting profit	
	Acquisition expenses (deferred & non-deferred)	
	Admin. expenses	
	Loss reserves (i.e., losses and allocated/unallocated loss adjustment expenses)	Admin. expenses
		Discounted loss reserves (i.e., losses and allocated/unallocated loss adjustment expenses)
		Cost of insurance

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 recoverables 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 rate 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 rate.

E. Valuation *continued*

SST – IFRS valuation difference

in USD millions, as of December 31, 2018

Total Best estimate of non-Life insurance liabilities (IFRS)		(77,629)
	Valuation differences	12,850
Non-Life insurance liabilities	The reclassification to held for sale is not applicable in MCBS	(2,079)
Total Best estimate of non-Life insurance liabilities (SST)		(66,858)

Best estimate of life investment and insurance liabilities

Generally, the SST MCBS value of all unit-linked and non-unit-linked investment, as well as life insurance liabilities, is based on a bottom-up best estimate projection of future cash flows (excluding current policyholder loan balances). Any options and guarantees provided to the policyholder are valued on an economic and 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 economic 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.

Cash-flow projections may vary, depending on the product. 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 transfer 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 modeling, 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, 2018

Total Best estimate of life insurance liabilities (IFRS)		(219,419)
Life insurance liabilities	Valuation differences	14,027
Direct insurance: unit-linked life insurance business	The reclassification to held for sale is not applicable in MCBS	(23,709)
	Market movements	4,130
Total Best estimate of life insurance liabilities (SST)		(224,970)

Reinsurers' share of best estimate of 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 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 UPR

Under IFRS, the reinsurers' share of UPR represents the portion of the ceded premiums related to the unexpired coverage period. The adjustments performed to arrive at the MCBS value for UPR are illustrated below.

Illustrative breakdown of ceded UPR

IFRS	MCBS
Ceded profit	
Reinsurance commission received	
Future claims recoveries	Discounted future claims recoveries

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.

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, 2018

Total Best estimate of Reinsurers' share of best estimate of insurance liabilities (IFRS)	21,197
Reinsurers' share of best estimate of Valuation differences.	(3,864)
insurance liabilities -unit-linked life insurance business	The reclassification to held for sale is not applicable in MCBS
	234
Total Best estimate of Reinsurers' share of best estimate of insurance liabilities (SST)	17,567

Market-consistent value of other liabilities

Interest-bearing liabilities include subordinated debt instruments eligible as supplementary capital² under SST. Such interest-bearing liabilities are subject to a market-consistent valuation based on risk-free rates, where the future cash flows are considered over the remaining period until the earliest contractual redemption date. In cases where a quoted market price is available and used, the market price is adjusted to eliminate own credit spread.

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.

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.

² Supplementary capital is defined in Art. 49 of Insurance Supervision Ordinance (ISO) and includes risk-absorbing capital instruments that fulfill the definition in Art. 22a ISO and are approved by the FINMA.

E. Valuation *continued*

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.

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

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).

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 25.8 billion as held for sale under IFRS is not applicable in MCBS.

SST – IFRS valuation difference

in USD millions, as of December 31, 2018

Total IFRS value of other liabilities		(67,773)
Interest bearing liabilities	Valuation differences	(333)
	Deferred front-end fees: Value set to zero in MCBS	5,177
	The reclassification to held for sale is not applicable in MCBS	25,788
	Deferred taxes (other than deferred tax on Swiss real estate transfers attributable to shareholders): Valued set to zero in MCBS	3,439
Other liabilities		
Other differences		(102)
Total market-consistent value of other liabilities (SST)		(33,803)

E.2.5 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 SST circular 2017/03.

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, 2019 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	Smith Wilson giving smooth		1.38% (50-year market spot rate)	0.2
USD	50	mid-swap	forward and spot curves passing exactly through market data		2.78% (50-year market spot rate)	0.2
GBP	50	rates from			1.48% (50-year market spot rate)	0.2
CHF	30	Bloomberg			0.84% (30-year market spot rate)	0.2

F. Capital management

F.1 Capital management objectives

The Group manages its capital to maximize long-term shareholder value while maintaining financial strength within its 'AA' target range, and meeting regulatory, solvency and rating agency requirements. In particular, the Group endeavors to manage its shareholders' equity under IFRS to balance maximization of shareholder value and constraints imposed by its economic framework, rating agencies and regulators. As of December 31, 2018, shareholders' equity of USD 30.2 billion, subordinated debt of USD 6.8 billion and senior financial debt not maturing within the next year of USD 2.4 billion were part of the capital available in the Group's economic framework. Further adjustments usually include such items as intangible assets, deferred tax assets and liabilities, allowing for discounting of liabilities and the value of in-force business or excluding new net issuances of senior debt. For more information, see 'analysis of the Group's Z-ECM available financial resources' (unaudited).

Zurich strives to simplify its legal entity structure to reduce complexity and increase fungibility of capital.

F.2 Capital structure

Share capital

As of December 31, 2018, the ordinary share capital of Zurich Insurance Group Ltd amounted to CHF 15,134,802.70 divided into 151,348,027 fully paid registered shares with a nominal value of CHF 0.10 each. The Board proposed to the shareholders at the Annual General Meeting on April 3, 2019 a dividend of CHF 19 per share. The dividend 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, 2018

At the Annual General Meeting of April 4, 2018, shareholders approved to extend the validity period of the authorized share capital and the combined dilution limitations for authorized and contingent share capital as specified in Article 5^{bis} and 5^{ter} of the Articles of Association.

Up to and including April 4, 2020, the Board of Zurich Insurance Group Ltd is authorized to increase the authorized share capital (Art. 5^{bis}) 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. This authorized share capital corresponds to about 30 percent of the total registered shares issued as of December 31, 2018. Share issuances out of authorized share capital where the shareholders' subscription rights are restricted or excluded are limited to 15,000,000 shares (i.e., less than 10 percent of the total registered shares issued as of December 31, 2018).

The contingent share capital of Zurich Insurance Group Ltd (Art. 5^{ter} 1a) 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. This contingent share capital corresponds to about 20 percent of the total registered shares issued as of December 31, 2018.

Up to and including April 4, 2020, the total number of new shares which could be issued from (i) authorized share capital under Art. 5^{bis} where the subscription rights are restricted or excluded and (ii) contingent share capital in connection with financial instruments under Art. 5^{ter} 1a where the advance subscription rights are restricted or excluded is limited to 30,000,000 shares (i.e., less than 20 percent of the total registered shares issued as of December 31, 2018).

Moreover, there is an additional contingent share capital (Art. 5^{ter} 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 225 to 227. This contingent share capital compares to about 3.3 percent of the current total registered shares issued as of December 31, 2018.

F. Capital management *continued*

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

Changes to share capital during 2018

During 2018, a total of 8,176 shares were issued to employees out of contingent share capital. As a result, on December 31, 2018, the share capital amounted to CHF 15,134,802.70 (151,348,027 shares). The authorized share capital (Art. 5^{bis} 1) amounted to CHF 4,500,000 (45,000,000 shares). The contingent share capital for financial instruments (Art. 5^{ter} 1a) amounted to CHF 3,000,000 (30,000,000 shares) and the contingent share capital for employees (Art. 5^{ter} 2a) amounted to CHF 494,723.20 (4,947,232 shares).

On April 11, 2018, the Board of Directors launched a public share buy-back program of 1,740,000 of Zurich Insurance Group Ltd's own shares for cancellation purposes, which was completed on May 18, 2018. The purchase value of the repurchased own shares corresponded to CHF 548,167,352. For further information, see the audited consolidated financial statements note 19 on pages 225 to 227.

Convertible bonds and options

Zurich Insurance Group Ltd had no public convertibles or options outstanding as of December 31, 2018. For information on employee share plans, see the audited consolidated financial statements, note 21 on pages 236 to 237.

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 a number of 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 2018, the Group paid a dividend out of retained earnings and the capital contribution reserve, executed a share repurchase program, issued senior debt to finance redemptions and investments in the Group's development, and called hybrid debt that was re-financed during 2018.

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, 2018, the amount of the statutory general legal reserve is more than 40 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 2018.

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

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

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.

At the Group level, Zurich compares Z-ECM capital required to the Z-ECM available financial resources (Z-ECM 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 statement includes capital, liquidity, earnings volatility and non-financial metrics. The Group regularly measures and quantifies material risks to which it is exposed. Zurich's policy is to maintain capital consistent with an '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 strategic 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

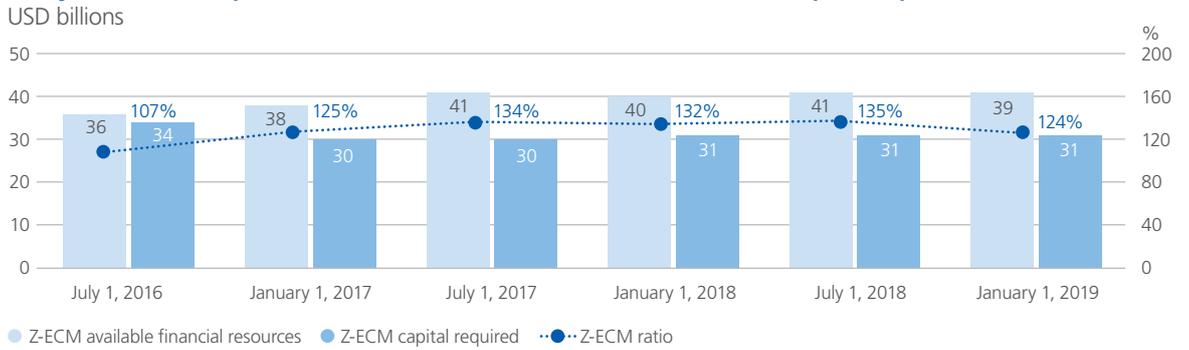
<p><90%</p> <p>Z-ECM ratio below Group risk tolerance level, requiring appropriate remedial actions</p>	<p>90–100%</p> <p>Position may be tolerated for a certain length of time depending on the risk environment</p>	<p>100–120%</p> <p>'AA' target range No action required as within stated objective and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

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, 2019, the Z-ECM ratio was estimated at 124% with an error margin of +/- 5 percentage points.

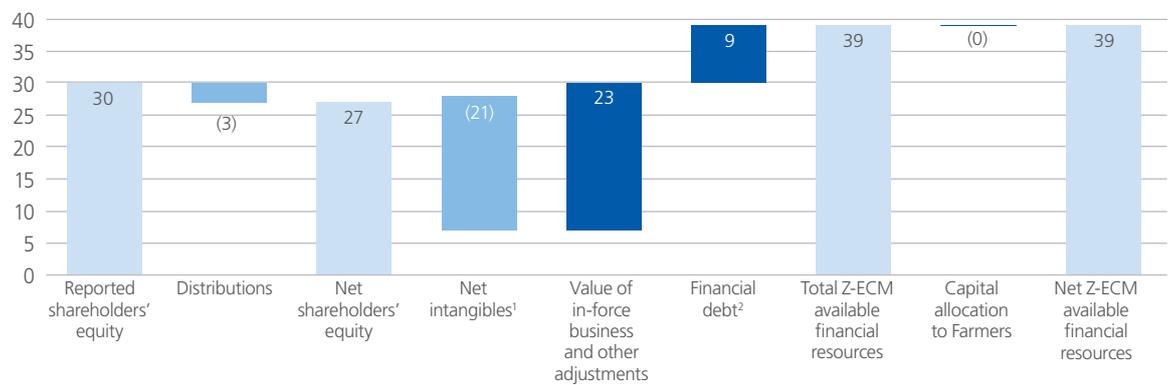
Analysis of the Group's Z-ECM available financial resources and Z-ECM capital required



The chart below shows an analysis of the composition of the Group's Z-ECM available financial resources as of January 1, 2019.

Analysis of the Group's Z-ECM available financial resources

USD billions, as of January 1, 2019



¹ Shareholders' intangible assets including deferred tax assets less deferred front-end fees and deferred tax liabilities

² Debt issues (senior and subordinated) excluding those classified as operational debt or maturing within one year. Since the second quarter 2018, net new issued senior debts are excluded

Total Z-ECM capital required: USD 31.0 billion

%, as of January 1, 2019



F.6 Insurance financial strength rating

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

In October 2018, Standard & Poor's affirmed ZIC's 'AA-' IFSR with a stable outlook and stated that "Zurich's performance (...) proves its management's ability to control the strategic plan's execution and adjust it accordingly." As a result, Standard & Poor's reassessed the management and governance factor in the rating analysis to strong from satisfactory.

Standard & Poor's sees Zurich's enterprise risk management as 'very strong,' based on a positive view of our risk management culture, risk controls, emerging risk management, risk models and strategic risk assessment. As of December 31, 2018, the IFSR of ZIC, the main operating entity of the Group, was 'AA-/Stable' by Standard and Poor's, '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 all of its regulated entities meet local regulatory capital requirements at all times.

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 to ensure regulated subsidiaries 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 has to 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 221 percent (unaudited) as of January 1, 2019.

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%) compared to SST (expected shortfall 99%)
- 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.

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 <ul style="list-style-type: none"> • P&C Expense Risk • Operational Risk 	Additional risk types compared to Z-ECM <ul style="list-style-type: none"> • Unearned premium reserves (UPR) risk
Senior debt	Valued as available capital	Valued as liability
Granularity	Management view <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Internal reinsurance considered • Only diversification within legal entity taken into account • Risk of subsidiaries included (with limited liability)

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.

In 2018, Zurich continued to enhance its internal model, advanced the approval process with FINMA, and has received approval for specific enhancements of the model. The model approval process continues for other parts of the internal model. The 2019 model changes will primarily address new regulatory requirements that enter into force in 2020 and that have not yet been implemented into the Group's internal model. Zurich intends to file these modules for FINMA's approval during the course of 2019.

The model changes implemented in 2018 have a moderate impact on the ZIG SST ratio, resulting in an increase of 5 percentage points, compared to the ZIG SST ratio of 216% filed with FINMA as of January 1, 2018.

Based on the enhanced SST internal model the SST ratio as of January 1, 2019 stands at 221%, 5 percentage points higher compared to SST ratio as of January 1, 2018. Following the model change impact, the strong operational capital generation from the businesses contributed 22 percentage points to the ZIG SST ratio. However, negative market movements in the latter part of the year reduced the ratio by 6 percentage points, largely due to credit and Italian government spread widening and falls in equity markets. Dividend accrual reduced the ratio by a further 16 percentage points.

Solvency	in USD millions, for the years ended December 31		Adjustments
	2017	Previous year	2018
Derivation of risk-bearing capital			
Market-consistent value of assets minus total of best estimate liabilities and market-consistent value of other liabilities	40,413		39,142
Deductions	(3,791)		(2,923)
Core capital	36,622		36,220
Supplementary capital	7,724		6,851
Risk-bearing capital	44,347		43,070
Derivation of target capital			
Underwriting risk	10,609		10,216
Market risk	10,575		10,108
Diversification effects	(3,805)		(3,928)
Credit risk	3,993		6,503
Risk margin and other effects on target capital ¹	1,824		(1,069)
Target capital	23,196		21,830
SST ratio²	216%		221%

¹ Risk margin accounts for USD 4,220 million, other effects on target capital include diversification effects between credit risk and other risk types, and other risk models.

² 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

	2017	Adjustments previous period	2018
Insurance risk derivation of target capital			
Premium and reserve risk (including UPR risk)	7,887		7,320
Nat Cat	3,329		3,823
Life insurance liabilities	2,764		2,650
Business risk	4,293		4,104
Diversification	(7,663)		(7,681)
Total	10,609		10,216
	–		–
Market risk derivation of target capital			
Equity risk	3,772		3,728
Interest rate risk	4,254		4,971
Exchange rate risk	2,423		2,861
Credit spread risk	6,831		3,551
Other	4,864		11,089
Diversification	(9,650)		(11,967)
Total (including investment credit risk)	12,493		14,233
thereof	–		–
Market risk (excluding investment credit risk)	10,575		10,108
Investment credit risk	3,816		6,305
	–		–
Credit risk derivation of target capital			
Investment credit risk	3,816		6,305
Reinsurance credit risk & receivables	993		766
Diversification	(815)		(568)
Total	3,993		6,503

THIS PAGE HAS INTENTIONALLY BEEN LEFT BLANK

Appendix 1: Quantitative templates

Income statement Group and segments (IFRS)

in USD millions, for the years ended December 31

	Total	
	2017	2018
Gross written premiums	46,685	47,038
Policy fees	2,429	2,447
Gross written premiums and policy fees	49,114	49,485
Less premiums ceded to reinsurers	(7,977)	(8,255)
Net written premiums and policy fees	41,136	41,230
Net change in reserves for unearned premiums	(79)	(224)
Net earned premiums and policy fees	41,057	41,007
Farmers management fees and other related revenues	2,892	3,204
Net investment result on Group investments	7,249	6,288
Net investment income on Group Investments	5,215	5,387
Net cap gains/losses & imp. on Group investments	2,034	901
Net investment result on unit-linked investments	11,664	(4,374)
Net gain/(loss) on divestments of businesses	(84)	(24)
Other income	1,183	1,080
Total revenues	63,961	47,180
Insurance benefits and losses, gross of reinsurance	34,894	33,483
Less ceded insurance benefits and losses	(6,252)	(5,837)
Insurance benefits and losses, net of reinsurance	28,643	27,646
PH div & particip. in profits, net	12,984	(2,736)
Underwriting and policy acqu. costs, net	9,039	8,565
Administrative and other operating expense	7,212	7,761
Interest expense on debt	411	402
Interest credited to policyholders and other interest	546	433
Total benefits, losses and expenses	58,835	42,070
Net income before income taxes	5,125	5,110
Income tax expense	(1,816)	(1,134)
– attributable to policyholders	(171)	183
– attributable to shareholders	(1,645)	(1,317)
Net income after taxes	3,309	3,977
Attributable to minority interests	305	261
Attributable to shareholders	3,004	3,716

Appendix 1: Quantitative templates *continued*

Income statement Group and major international markets (IFRS)

in USD millions, for the years ended December 31

	Total	
	2017	2018
Gross written premiums	46,685	47,038
Policy fees	2,429	2,447
Gross written premiums and policy fees	49,114	49,485
Less premiums ceded to reinsurers	(7,977)	(8,255)
Net written premiums and policy fees	41,136	41,230
Net change in reserves for unearned premiums	(79)	(224)
Net earned premiums and policy fees	41,057	41,007
Farmers management fees and other related revenues	2,892	3,204
Net investment result on Group investments	7,249	6,288
Net investment income on Group Investments	5,215	5,387
Net cap gains/losses & imp. on Group investments	2,034	901
Net investment result on unit-linked investments	11,664	(4,374)
Net gain/(loss) on divestments of businesses	(84)	(24)
Other income	1,183	1,080
Total revenues	63,961	47,180
Insurance benefits and losses, gross of reinsurance	34,894	33,483
Less ceded insurance benefits and losses	(6,252)	(5,837)
Insurance benefits and losses, net of reinsurance	28,643	27,646
PH div & particip. in profits, net	12,984	(2,736)
Underwriting and policy acqu. costs, net	9,039	8,565
Administrative and other operating expense	7,212	7,761
Interest expense on debt	411	402
Interest credited to policyholders and other interest	546	433
Total benefits, losses and expenses	58,835	42,070
Net income before income taxes	5,125	5,110
Income tax expense	(1,816)	(1,134)
– attributable to policyholders	(171)	183
– attributable to shareholders	(1,645)	(1,317)
Net income after taxes	3,309	3,977
Attributable to minority interests	305	261
Attributable to shareholders	3,004	3,716

Appendix 1: Quantitative templates *continued*Market-Consistent
Balance Sheet

in USD millions, for the years ended December 31

	2017	Adjustments previous period	2018
Market-consistent value of investments			
Real estate	12,238		12,351
Shareholdings	19		36
Fixed income securities	133,139		124,068
Loans	10,410		9,130
Mortgages	7,501		6,934
Equities	8,519		7,644
Other investments	25,033		25,298
Collective investment schemes	4,159		3,682
Alternative investments	3,440		3,308
Other capital investments	17,434		18,308
Total Investments	196,860		185,461
Financial investments from unit-linked life insurance	128,591		133,047
Receivables from derivative financial instruments	903		899
Market-consistent value of other assets			
Cash and cash equivalents	8,269		8,669
Receivables from insurance business	11,237		10,739
Other receivables	3,374		3,574
Other assets	5,244		5,294
Total other assets	28,124		28,276
Total market-consistent value of assets	354,477		347,682
Best estimate liabilities (BEL)			
Best estimate of insurance liabilities	(317,983)		(292,304)
Direct insurance: life insurance business (excluding ALV)	(98,832)		(94,743)
Direct insurance: non-life insurance business	(66,108)		(63,182)
Direct insurance: health insurance business	0		0
Direct insurance: unit-linked life insurance business	(146,012)		(129,532)
Direct insurance: other business	(457)		(470)
Outward reinsurance: life insurance business (excluding ALV)	(2,215)		(694)
Outward reinsurance: non-life insurance business	(4,353)		(3,676)
Outward reinsurance: health insurance business	0		0
Outward reinsurance: unit-linked life insurance business	0		1
Outward reinsurance: other business	(6)		(6)
Reinsurers' share of best estimate of insurance liabilities	38,716		17,567
Direct insurance: life insurance business (excluding ALV)	4,998		4,916
Direct insurance: non-life insurance business	7,102		7,469
Direct insurance: health insurance business	0		0
Direct insurance: unit-linked life insurance business	21,656		(0)
Direct insurance: other business	0		0
Outward reinsurance: life insurance business (excluding ALV)	266		317
Outward reinsurance: non-life insurance business	4,695		4,865
Outward reinsurance: health insurance business	0		0
Outward reinsurance: unit-linked life insurance business	0		0
Outward reinsurance: other business	0		0
Market consistent value of other liabilities			
Non-technical provisions	(4,450)		(3,397)
Interest-bearing liabilities similar to debt capital	(11,744)		(12,345)
Liabilities from derivative financial instruments	(214)		(325)
Deposits retained on ceded reinsurance	(431)		(432)
Liabilities from insurance business	(4,327)		(3,612)
Other liabilities	(13,632)		(13,693)
Total BEL plus market-consistent value of liabilities	(314,064)		(308,540)
Difference between market-consistent assets and market-consistent debt capital	40,413		39,142

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, 2018

	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	426.5
Zurich Australian Insurance Limited	Sydney	100	100	AUD	6.6
Zurich Financial Services Australia Limited	Sydney	100	100	AUD	2,198.8
Austria					
Zürich Versicherungs-Aktiengesellschaft	Vienna	99.98	99.98	EUR	12.0
Brazil					
Zurich Santander Brasil Seguros e Previdência S.A.	Sao Paulo	51	51	BRL	2,509.2
Zurich Minas Brasil Seguros S.A.	Belo Horizonte	100	100	BRL	4,726.8
Zurich Resseguradora Brasil S.A.	Sao Paulo	100	100	BRL	204.0
Chile					
Chilena Consolidada Seguros de Vida S.A.	Santiago	98.97	98.97	CLP	177,382.6
Zurich Santander Seguros de Vida Chile S.A.	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	981.0
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	99.99	99.99	MXN	190.0

Appendix 2: Interest in subsidiaries *continued*

Significant subsidiaries – non-listed (continued)

as of December 31, 2018

	Registered office	Voting rights %	Ownership interest %	Nominal value of share capital (in local currency millions)	
Spain					
Bansabadell Pensiones, E.G.F.P, S.A. ²	Barcelona	50	50	EUR	7.8
Bansabadell Seguros Generales, S.A. de Seguros y Reaseguros ²	Barcelona	50	50	EUR	10.0
Bansabadell Vida S.A. de Seguros y Reaseguros ²	Barcelona	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.	Boadilla del Monte	100	100	EUR	94.3
Zurich Santander Holding Dos (Spain), S.L.	Madrid	100	100	EUR	40.0
Zurich Santander Insurance America, S.L.	Madrid	51	51	EUR	177.0
Zurich Vida, Compañía de Seguros y Reaseguros, S.A. - Sociedad Unipersonal	Madrid	100	100	EUR	56.4
Switzerland					
Genevoise Real Estate Company Ltd	Geneva	100	100	CHF	20.4
Zurich Finance Company AG	Zurich	100	100	CHF	0.2
Zurich Insurance Company Ltd	Zurich	100	100	CHF	825.0
Zurich Investment Management AG	Zurich	100	100	CHF	10.0
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	100	100	GBP	90.7
Zurich Assurance Ltd	Cheltenham, England	100	100	GBP	236.1
Zurich Employment Services Limited	Cheltenham, England	100	100	GBP	215.8
Zurich Financial Services (UKISA) Limited	Cheltenham, England	100	100	GBP	1,652.1
Zurich Holdings (UK) Limited	Fareham, England	100	100	GBP	190.2
Zurich International Life Limited	Douglas, Isle of Man	100	100	GBP	123.4
Zurich UK General Services Limited	Fareham, England	100	100	GBP	300.7

**Significant
subsidiaries –
non-listed
(continued)**

as of December 31, 2018

	Registered office	Voting rights %	Ownership interest %	Nominal value of share capital (in local currency millions)	
United States of America					
Farmers Group, Inc. ³	Carson City, NV	100	100	USD	0.001
Farmers Reinsurance Company ³	Woodland Hills, CA	87.90	95.38	USD	58.8
Farmers New World Life Insurance Company ³	Bellevue, WA	100	100	USD	6.6
Zurich American Corporation	Wilmington, DE	100	100	USD	0.00001
Zurich American Insurance Company (and subsidiaries)	New York, NY	100	100	USD	5.0
Rural Community Insurance Company	Anoka, MN	100	100	USD	3.0
Zurich American Life Insurance Company	Schaumburg, IL	100	100	USD	2.5
Zurich Holding Company of America, Inc. ⁴	Wilmington, DE	100	100	USD	0.0
ZCM Matched Funding Corp.	George Town, Cayman Islands	100	100	USD	0.00100
Centre Group Holdings (U.S.) Limited	Wilmington, DE	100	100	USD	0.000010
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 The controlling shareholder of this subsidiary is Zurich Santander Holding Dos (Spain), S.L.

² Relates to Bansabadell insurance entities which are controlled by the Group.

³ 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.

⁴ 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 2018

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, 2018 are audited. Please refer to the report of the statutory auditor in the Zurich Group Annual Report 2018, page 276.

<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' 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 and in that capacity provide certain non-claims administrative, management, and ancillary services to the Farmers Exchanges¹. 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. Financial information about the Farmers Exchanges is proprietary to the Farmers Exchanges, 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.

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.

