

# Financial Condition Report 2017



# Zurich Insurance Company Ltd

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The information published in this report is consistent with the information published in the Annual Reports 2017 of Zurich Insurance Group and Zurich Insurance Company Group, as well as the regulatory reportings of the Zurich Insurance Company Ltd for the year 2017, including the regulatory reporting to the Swiss Financial Market Supervisory Authority FINMA (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 Company 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 Company Ltd (ZIC) is the main operating entity of the Zurich Insurance Group. Zurich Insurance Group is a leading multi-line insurer that services its customers in global and local markets. With about 53,000 employees, it provides a wide range of property and casualty, and life insurance products and services in more than 210 countries and territories. ZIC writes direct property and casualty insurance business mainly in Switzerland, Canada, Hong Kong and Japan.

Total gross written premiums and policy fees

**CHF 18.7bn**

Net income after taxes

**CHF 1.3bn**

Net investment result

**CHF 3.2bn**

### System of governance and enterprise risk management

Good corporate governance enables ZIC to create sustainable value for all its stakeholders.

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

### Risk profile

Zurich Insurance Group uses its Total Risk Profiling™ process to evaluate internal and external risks, both those that are market-wide and those idiosyncratic to Zurich. In deciding how to respond, we take into account the time horizon for risks to potentially materialize, as well as what we can control and what we cannot.

Of the near-to mid-term risks we have identified, two risks have strong technology elements and reflect the rapidly changing environment. The first is the external risk posed by changes in customer expectations, and the corollary internal risk to our ability to engage and provide service to our customers at the desired level. The second is information security and cyber risk.

### Financial condition

ZIC maintained its strong rating level in 2017. As of December 31, 2017, the Insurance Financial Strength rating was 'AA-' by Standard and Poor's, 'Aa3/stable' by Moody's, and 'A+/negative' by A.M. Best.

Shareholders' equity

**CHF 21.6bn**

Swiss Solvency Test ratio as of January 1, 2018

**SST 212%**

Standard & Poor's financial strength rating as of December 31, 2017

**AA-/stable**

# Acronyms

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AC	Audit Committee	IT	information technology
ABS	asset-backed securities	JV	joint venture
AFR	available financial resources	LAE	loss adjustment expenses
AIF	attorney-in fact contract	LEM	loss event management
ALM	asset liability management	M&A	mergers and acquisitions
ALMIC	Asset Liability Management and Investment Committee	MBS	mortgage-backed securities
ALV	Arbeitslosenversicherung (Swiss unemployment insurance)	MCBS	market consistent balance sheet
Board	Board of Directors	MCEV	market consistent embedded value
BEL	best estimate liability	MCFC	minimum common financial controls
bn	billion	MVM	market value margin
BRL	Brazilian real	OKC	operational key controls
BU	Business Unit	ORSA	Own Risk and Solvency Assessment
CECS	Control for Economic and Solvency	PV	planned value
CEO	Chief Executive Officer	PwC	PricewaterhouseCoopers AG
CFO	Chief Financial Officer	Q	quarter
CH	Switzerland	RCIS	Rural Community Insurance Services
CHF	Swiss franc	SAA	strategic asset allocation
CRO	Chief Risk Officer	SAV	Swiss Association of Actuaries
CLP	Corporate Life & Pensions	SFCR	Solvency and Financial Condition Report
DF	discount factor	SNB	Swiss National Bank
EMEA	Europe, Middle East & Africa	SIA	Swiss Insurance Association
ERM	Enterprise Risk Management	SOX	Sarbanes-Oxley Act
EU	European Union	SPV	special purpose vehicle
EUR	euro	SST	Swiss Solvency Test
ExCo	Executive Committee	TDS	top down scenario
FCR	Financial Condition Report	TRP	Total Risk Profiling
FGI	Farmers Group, Inc.	TVOG	time value of options and guarantees
FINMA	Swiss Financial Market Supervisory Authority	UK	United Kingdom
FX	foreign exchange	UL	unit-linked
FV	fair value	UPR	unearned premium reserves
GBP	Great Britain pound	USD	U.S. dollar
GL	Global Life	ZBAG	Zürich Beteiligungs-Aktiengesellschaft (Deutschland)
Group	Zurich Insurance Group	Z-ECM	Zurich Economic Capital Model
GWP	gross written premiums and policy fees	ZGEBBS	Zurich Global Employee Benefit Solutions
HK	Hong Kong	ZIAG	Zurich Investment AG
HR	Human Resources	ZIC	Zurich Insurance Company Ltd
IFRS	International Financial Reporting Standards	ZIG	Zurich Insurance Group
IGRS	International Group Risk Solutions	ZILL	Zurich International Life Limited
IIA	Institute of Internal Auditors	ZIP	Zurich Insurance plc
ISA	Swiss Insurance Supervision Act	Zurich IMRE	Zurich Investment Management Real Estate
ISDA	Swiss International Swaps and Derivatives Association	AG	AG
ISO	Insurance Supervision Ordinance	ZLIC	Zurich Life Insurance Company Ltd
		ZRP	Zurich Risk Policy
		Zurich	Zurich Insurance Group

# Introduction

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## How to read the report

Zurich Insurance Company Ltd ('ZIC' or 'the Company')'s financial condition report is prepared in compliance with ISO article 26 and FINMA's Circular 2016/2 'Disclosure - insurers'. The report focuses on the 2017 financial year, and should be read in conjunction with the Company's Annual Report 2017 (available on [www.zurich.com/en/investor-relations/results-and-reports/other-statutory-filings](http://www.zurich.com/en/investor-relations/results-and-reports/other-statutory-filings)). Wherever applicable, this report makes reference to the Zurich Insurance Group's Financial Condition Report or the Zurich Insurance Group's Annual Report for more information.

We prepared this report on a consolidated basis, using a look-through approach that captures the entire Zurich Insurance Company Group (Zurich Insurance Company Ltd and its subsidiaries, or ZIC Group). With this approach, ZIC:

- Evaluates assets and liabilities of subsidiaries and participations by 'looking through' to their balance sheets. This view is possible as subsidiaries are wholly owned and deliver detailed information about the risk profile and valuation of these assets and liabilities (e.g., an equity exposure held in the balance sheet of a subsidiary is presented in the 'equity line' in the consolidated ZIC Group balance sheet, and therefore subsidiaries are not presented under 'investments in subsidiaries').
- Aggregates assets and liabilities by type or line items, to create a consolidated view.

The consolidated, look-through approach results in particular under the Swiss Solvency Test in equivalent level of protection of the policyholders and equivalent prudential outcome. Only the presentation differs, as it focuses on a ZIC Group view, rather than a ZIC's entity view. This approach is consistent with our regulatory SST submissions to FINMA. See section E.2, pages 37 following for more information.

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

- 'Business activities'-related and 'Performance' results are presented on an IFRS basis for ZIC Group results. The disclosure is complemented with information in the quantitative reporting templates (see Appendix 1) based on the Swiss statutory reporting standards applicable to ZIC.
- The 'Risk profile' section presents information for the ZIC Group under IFRS for insurance and credit risk, and a net economic asset value-based analysis of the market risk.
- 'Valuation' presents the market-consistent balance sheet (MCBS) of the ZIC Group following the Swiss Solvency Test (SST) principles. The SST MCBS is compared with the IFRS balance sheet of the ZIC Group as of December 31, 2017.
- Finally, the 'Solvency' section shows the regulatory capital adequacy of the Company based on SST.

Risk and capital are managed at the ZIC Group, region and business unit level according to Zurich Insurance Group's risk and capital management framework. The principles of the Zurich Insurance Group's enterprise risk management described in the 'Governance and risk management section' and in the 'Risk profile' section are equally applicable to ZIC Group. There is no material difference between how risk and capital are managed at the Zurich Insurance Group and the ZIC Group.

FINMA mandates the disclosure of quantitative templates for insurance companies that are included in Appendix 1.

## Introduction *continued*

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### 1 Executive summary

#### Business activities

ZIC is the main operating entity of the Zurich Insurance Group (ZIG, Zurich, the Group, or the consolidated Group). Zurich is a leading multi-line insurer that serves its customers in global and local markets. With about 53,000 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.

#### Performance: ZIC's financial results overview in 2017

ZIC reported a net income after taxes of CHF 1,344 million in 2017, a 57 percent decrease compared to 2016. This decrease is mainly driven by lower net investment result of CHF 809 million, by lower net other financial income and expense of CHF 388 million and by higher net insurance benefits and losses of CHF 349 million.

Total gross written premiums and policy fees decreased by CHF 215 million or 1 percent to CHF 18,748 million for the year ended December 31, 2017. Direct business gross written premiums and policy fees decreased by CHF 152 million to CHF 4,075 million. Assumed reinsurance gross written premiums and policy fees decreased by CHF 63 million to CHF 14, 673 million.

#### Corporate governance and risk management

The Zurich insurance Group 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.

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.

#### Risk profile

Zurich Insurance Group works to reduce unintended risks of strategic business decisions through its risk management processes and tools, including Total Risk Profiling™ (TRP) process. As part of the regular TRP process the Zurich Insurance Group's Executive Committee (ExCo) identified and assessed risks from both external and internal factors. External risks include changes in inflation or interest rates beyond expected forecasts; geopolitical uncertainties such as Brexit; looming European banking crisis; insurance market trends, and changing customer expectations. Internally, key risks include Zurich's ability to engage and provide service to customers at the desired level; technical excellence in underwriting; information security and cyber threats; challenges related to Zurich's workforce, and managing the growing requirements. Mitigating actions have been assigned to executive owners and their status is reviewed at least quarterly.

ZIC Group's key risks, as measured by the Swiss Solvency Test (SST) target capital, are market risk, premium and reserve risk, and natural catastrophe risk. ZIC Group's risk profile is largely a function of the risks written by its subsidiaries. Premium and reserve risk followed by market risk are the major risk drivers of the business directly written in Switzerland by ZIC. See section 'Solvency', pages 48-49.

#### Valuation

ZIC Group's market-consistent balance sheet (MCBS) values assets and liabilities in accordance with the SST principles. The difference between the value of the assets and the liabilities forms the basis for the calculation of the risk-bearing capital.

The main movements in the MCBS include:

- The market value of Total investments increased by USD 11.3bn from USD 185.6bn as of Q4 2016 to USD 196.9bn as of Q4 2017.
- Other investments increased by USD 1.0bn from USD 7.2bn in Q4 2016 to USD 8.5bn in Q4 2017.
- The market-consistent value of Best estimate of insurance liabilities has increased by USD 30.5bn from 287.5bn in Q4 2016 to USD 318.0bn in Q4 2017.

See 'Valuation' for a presentation of ZIC Group's market-consistent balance sheet and an analysis of change.

### 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 33.1 billion, subordinated debts of USD 6.9 billion and senior financial debts not maturing within the next year of USD 2.9 billion were 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.

ZIC maintained its strong rating level in 2017. On Dec 8, 2017, A.M. Best modified the rating outlook from negative to stable while reaffirming the A+ (Superior) Financial Strength Rating (FSR) and aa- Issuer Credit Rating (ICR) of Zurich Insurance Company Ltd and of its subsidiaries rated by AM Best. With this, AM Best recognized "the positive impact of the strong corrective actions management has taken on the Zurich Insurance Group's Property and Casualty (P&C) operations." This change is also based on the recognition of the Zurich Insurance Group's diversified sources of earnings in terms of businesses and geographies, as well as the strength of the balance sheet.

As of December 31, 2017, the IFSR of Zurich Insurance Company Ltd (ZIC), was 'AA-/Stable' by Standard and Poor's, 'Aa3/Stable' by Moody's, and 'A+ (Superior)/Stable' by A.M. Best.

### Solvency

The SST compares risk-bearing capital with target capital through calculation of the SST ratio. This test indicates whether the level of risk-bearing capital is sufficient to ensure that the probability of policyholder impairment is at a level consistent with FINMA's regulatory objectives.

Based on the new SST internal model the ZIC SST ratio as of January 1, 2018 stands at 212%, 18 percentage points higher compared to the new model based ZIC SST ratio as of January 1, 2017.

The ZIC SST ratio has increased driven mainly by favorable economic and business changes, partially offset by a higher dividend base.

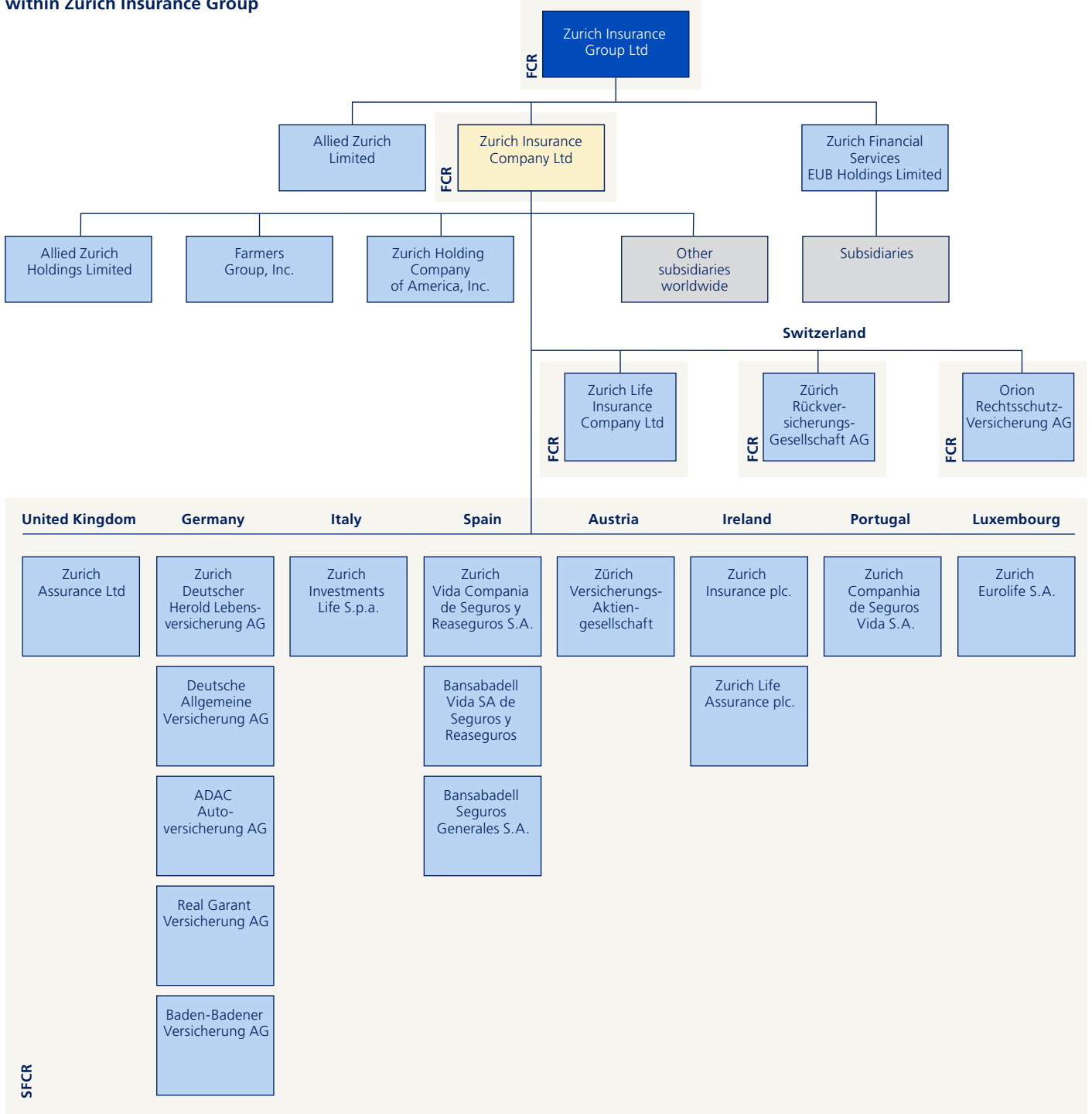
## 2 Approval of the Financial Condition Report

This Report was reviewed and signed-off by the Board of Directors of ZIC on April 25, 2018.

# A. Business activities

## A.1 Legal structure and major subsidiaries and branches

**Chart 1: 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    ■ Current disclosure

Note: The purpose of the chart above is to provide a simplified overview of the Group's major subsidiaries (as reported at April 30, 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.



ZIC is the main operating carrier of Zurich Insurance Group, a leading multi-line insurer that serves its customers in global and local markets. With about 53,000 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.

As well as being an insurance company, ZIC also acts as the holding company for all subsidiaries and other affiliates of the Group, except for the Group's property loans and banking activities. ZIC pools internal reinsurance and ensures pooling of capital within Zurich. In addition, it is the main debt issuer of Zurich and carries the cost of the corporate center. Main subsidiaries include Allied Zurich Holdings Limited, Farmers Group, Inc, Zurich Assurance plc (UK), Zurich Insurance plc (Ireland), Zurich Holding Company of America, Inc (North America), and Zurich Life Insurance Company Ltd (Switzerland).

The ZIC subsidiaries regulated in Switzerland produce their own Financial Condition Report:

- 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 available on Zurich's website: <https://www.zurich.com/en/investor-relations/results-and-reports/other-statutory-filings>.

On December 22, 2017, the ZIC Group announced that it has acquired 100 percent of the shares of Bright Box HK Limited (Bright Box) and its subsidiaries, a provider of telematics solutions linking vehicle drivers, dealers and manufacturers.

On December 11, 2017, the ZIC Group announced it has entered into an agreement to acquire 100 percent of the Australian life insurance and consumer credit businesses (One Path Life) of Australie and New Zealand Banking Group Limited (ANZ) for AUD 2.85 billion (USD 2 billion) subject to a purchase price adjustment. Both parties expect the transaction, which is subject to regulatory approvals, to be completed by the end of 2018.

On April 13, 2017, the ZIC Group completed the acquisition of all the shares in Cover-More Group Limited (Cover-More), a travel insurance and assistance solutions provider listed on the Australian Securities Exchange, with main operations in Australia, India and the U.S. In conjunction with this acquisition, the ZIC Group also acquired Halo Insurance Services Limited (Halo), a distributor of vehicle hire related insurance in the U.K.

The final purchase price for Cover-More and Halo amounted to USD 580 million gross of a pre-closing dividend of USD 14 million. Based on the initial purchase accounting, the fair value of non-tangible assets acquired amounted to negative USD 99 million and identifiable intangible assets estimated at USD 163, gross of related deferred tax liabilities of USD 49 million. Residual goodwill amounted to USD 566 million which represents the future growth potential of the travel insurance assistance business, the value of the workforce with their distribution capabilities and related know-how and synergies with the ZIC Group.

During the twelve months ended December 31, 2017, the ZIC Group entered into various agreements to sell Property & Casualty (P&C) and Life businesses in the UK. On January 2, 2018, the ZIC Group announced the sale of the Endsleigh group of companies to A-Plan Holdings (except for Endsleigh Financial Services Limited and Endsleigh Pension Trusted Limited, subject to regulatory approval). On October 12, 2017, the ZIC Group announced a strategic deal under which Lloyds Banking Group (LBG) will acquire the UK workplace pensions and savings business. The assets and liabilities of both transactions have been reclassified to held for sale. As of December 31, 2017, the total assets and total liabilities reclassified were USD 29 billion and USD 29 billion respectively. Re-measurements of assets held for sale resulted in a pre-tax loss of USD 97 million which is recorded within net gains/(losses) on divestment of businesses. These transactions are expected to close in 2018.

On June 19, 2017, the ZIC Group closed the sale of its P&C insurance operations in the Middle East to Cigna International Corporation for a sales price of approximately USD 48 million subject to a purchase price adjustment. A pre-tax gain of USD 10 million has been recorded within net gains/(losses) on divestment of businesses.

## A. Business activities *continued*

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On January 17, 2017, the ZIC Group closed the sale of its P&C insurance operations in Taiwan to Hotai Motor Co., Ltd. for a sales price of approximately USD 213 million. A pre-tax loss of USD 9 million has been recorded with net gains (losses) on divestment of business.

On April 10, 2018, the AGM of ZLIC decided to distribute a dividend in kind consisting of two 100 percent owned investments in subsidiaries, Zurich Vida, Compañía de Seguros y Reaseguros, SA (Spain Life Company) and Zurich Latin America Holding SL (LatAm Holding Company), of the 90 percent interest in Zurich EuroLife SA (Luxembourg Life Company) as well as of 99.99 percent of ZLIC's shares of Zurich Companhia de Seguros Vida SA (Portugal Life Company). The legal transfer of such shares was completed on April 17, 2018.

It has been decided that ZIC provides reinsurance to Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft with effect of January 1<sup>st</sup>, 2018. At the same time ZIC has taken over the ZLIC's economic exposure to the Zurich Global Employee Solutions business through a 100% quota share retrocession arrangement.

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

The Zurich Insurance Company'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 improving service quality and customer experience
- Simplifies creating a more agile and responsive organization
- Innovates providing better products, services and customer care.

Zurich's strategy is 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. Zurich Insurance 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.

See the Zurich Insurance Group's Annual Report 2017, pages 12 and 13 for more information. Zurich Insurance Company Ltd includes the direct Property & Casualty business in Switzerland and its branches mainly located in Canada, Japan and Hong Kong as well as assumed reinsurance business from its subsidiaries and the Farmers Exchanges<sup>1</sup>. It includes the corporate center as well as most of the debt financing of Zurich Insurance Group

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

## A.3 Group structure

The Zurich Insurance Company Group consists of Zurich Insurance Company Ltd and its subsidiaries (the 'ZIC Group' or 'Zurich Insurance Company Group').

ZIC Group's business is focused on providing best-in-class general and life insurance products and services to individuals, small businesses, mid-sized and large companies.

The operational group structure reflects both, ZIC Group's businesses and geographical regions. ZIC Group pursues a customer-centric strategy, with the Property & Casualty (P&C) and Life businesses which are managed through a regional structure. For details on the activities of the various businesses refer to note 27 of the audited consolidated financial statements.

ZIC Group further divides its P&C and Life business into Retail and Commercial customer units.

ZIC Group has identified the following 13 reportable and operating segments.

### Group structure

Businesses	Property & Casualty (P&C)	Life	Farmers	Non-Core Businesses	Group Functions and Operations
Reportable segments	Europe, Middle East & Africa (EMEA) North America Asia Pacific Latin America Group Reinsurance	Europe, Middle East & Africa (EMEA) North America Asia Pacific Latin America Group Reinsurance	Farmers	Non-Core Businesses	Group Functions and Operations
Customer units	Commercial Retail				

## A. Business activities *continued*

Operating insurance branches of ZIC Ltd	as of December 31, 2017	Segment
<b>Bahrain</b>		
Zurich Insurance Company Ltd (Bahrain Branch)	Bahrain	Property & Casualty
<b>Bermuda</b>		
Zurich Insurance Company Ltd, Bermuda Branch	Bermuda	Property & Casualty
<b>Canada</b>		
Zurich Insurance Company Ltd, Canadian Branch	Canada	Property & Casualty
<b>Hong Kong</b>		
Zurich Insurance Company Ltd, Hong Kong Branch	Hong Kong	Property & Casualty
<b>Ireland</b>		
Zurich Insurance Company Ltd Ireland Branch	Ireland	Property & Casualty
<b>Italy</b>		
Zurich Insurance Company Limited - Rappresentanza Generale per l'Italia	Italy	Property & Casualty
<b>Japan</b>		
Zurich Insurance Company Limited	Japan	Property & Casualty
<b>Qatar</b>		
Zurich Insurance Company Ltd. QFC Branch	Qatar	Property & Casualty
<b>Singapore</b>		
Zurich Insurance Company Ltd Singapore Branch	Singapore	Property & Casualty
<b>Switzerland</b>		
Zürich Versicherungs-Gesellschaft AG, Regionalsitz Zürich	SWITZERLAND	Property & Casualty
Zürich Versicherungs-Gesellschaft AG, Regionalsitz Bern/Mittelland	SWITZERLAND	Property & Casualty
Zürich Versicherungs-Gesellschaft AG, Regionalsitz Zentral- und Nordwestschweiz	SWITZERLAND	Property & Casualty
Zurigo Compagnia di Assicurazioni SA, Sede regionale per il Ticino	SWITZERLAND	Property & Casualty
Zurich Compagnie d'Assurances SA, siège régional pour la Suisse romande	SWITZERLAND	Property & Casualty
<b>United Arab Emirates</b>		
Zurich Insurance Company Ltd. (DIFC Branch)	United Arab Emirates	Property & Casualty

### A.4 Information about the company's external auditors as per Article 28 ISA

Pricewaterhouse CoopersAG (PwC), Birchstrasse 160, in 8050 Zurich, is ZIC's external auditor.

### A.5 Significant unusual events

For significant events during 2017 and thereafter, please refer to the Annual Report 2017 of Zurich Insurance Company Group and Zurich Insurance Group, respectively, 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

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### B.1 Most important markets

In 2017, the most important markets according to premium income (direct business, excluding subsidiaries) were Switzerland, Canada, Hong Kong and Japan.

### B.2 Performance overview of ZIC

As complementary to the consolidated, look-through perspective presented for ZIC Group, FINMA mandates the disclosure of statutory stand-alone information prepared under the ZIC perspective, under local reporting requirements (Swiss Code of Obligations and relevant supervisory law) and in Swiss francs. Based on this perspective, Zurich presents performance information, differentiating between the direct Property & Casualty business written by ZIC in Switzerland and its branches located mainly in Canada, Japan and Hong Kong as well as assumed reinsurance business, reflecting primarily business assumed from ZIC's subsidiaries. Zurich provides this information in appendix 1. A discussion of the main factors affecting performance is outlined in the following commentary.

ZIC reported a net income after taxes of CHF 1,344 million in 2017, a 57 percent decrease compared to 2016. This decrease is mainly driven by a lower net investment result of CHF 809 million, lower net other financial income and expense of CHF 388 million and by higher net insurance benefits and losses of CHF 349 million.

Total gross written premiums and policy fees decreased by CHF 215 million or 1 percent to CHF 18,748 million for the year ended December 31, 2017. In local currency, gross written premiums and policy fees decreased by 1 percent or 185 million. Direct business gross written premiums and policy fees decreased by CHF 152 million to CHF 4,075 million because of decreasing business in Switzerland and Canada. Gross written premiums and policy fees of indirect business decreased by CHF 63 million to CHF 14,673 million.

The net insurance reserves increased by CHF 204 million compared with the year ended December 31, 2016. Main driver for the increase is the impact of catastrophe and weather related events beyond a normal level, in particular the hurricanes impacting the U.S. in the third quarter, Harvey, Irma and Maria (HIM) of USD 480 million (CHF 472 million), partially offset by the non-renewal of the All Lines Quota Share reinsurance agreement with Farmers Exchanges.

The net investment result decreased by CHF 809 million to CHF 3,225 million, mainly due to lower income from investments in subsidiaries and associates of CHF 847 million as a result of one-off impacts and lower realized capital gains on investments in subsidiaries and associates of CHF 234 million. This decrease is partially offset by higher net investments results on equity securities due to the overall improvement in the equity securities markets during 2017.

#### **Direct Swiss Business**

The underwriting result decreased by CHF 196 million to CHF 293 million in 2017, as a result of reduction in premiums, particularly in the Motor line, combined with effect of the negative impact of several natural catastrophe losses. In particular the flooding in Zofingen, the mountain slide in Bondo and hails storms in the Ticino contributed to higher insurance benefits and losses in Motor and Property insurance compared to the prior year. Casualty insurance was negatively affected by large claims in Financial Lines. Other technical expenses improved as a result of efficiency efforts.

#### **Direct Non-Swiss Business**

The net underwriting result increased by CHF 38 million to CHF 84 million in 2017, as net earned premiums and policy fees and net technical expenses decreased. The different branches contributed to this result as follows:

## B. Performance *continued*

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### Japan

Overall gross written premiums and policy fees grew by CHF 11 million with the major portfolios of Accident & Health and Motor both growing strongly. Accident & Health growth was driven by new supplementary health insurance products. Net earned premiums decreased CHF 30 million due to an increase in the Group internal cession of the auto portfolio. The net result from technical income and expense improved by CHF 11 million to CHF 54 million, due to lower claims and expense costs as well as the higher cessions.

### Hong Kong

Net earned premium in Accident, Health and Motor decreased by CHF 16 million due to underwriting actions taken to improve the profitability of the respective portfolios. In addition, Marine was impacted by a lapse of a large client and a shortfall in Liability was driven by the soft market conditions. Catastrophe and weather losses increased mainly due to Typhoon Hato. Attritional losses increased in the majority of business lines.

### Canada

Gross written premiums decreased by CHF 94 million compared to 2016, largely due to a change in focus away from lower middle market customers to higher market customers, changes in coverage on some larger Commercial and Energy accounts, the loss of a few significant captives, and the non-renewals of some Reverse Flow accounts.

On the other side, favorable prior year development, mainly in the Property and Liability lines of business, resulted in approximately CHF 90 million positive impact (net result from technical income and expense), the main driver of which was a claim settlement. It benefitted overall results through a reduction of loss reserves. Overall favorable prior year development contributed to the positive net income movement compared to 2016.

### Bermuda

All the direct business in the Company's Bermuda branch is in run-off. In 2016, this branch contributed a positive result of CHF 70 million due to a settlement of a large loss with a positive result from a cession. In 2017, the result impact is almost nil.

### Other branches

The other foreign branches with direct business (Italy and Singapore) had only minor impact on ZIC's result and reported stable results in 2017 and 2016.

### Indirect business

The underwriting result deteriorated by CHF 612 million, resulting in a loss of CHF 1,476 million. This is largely reflecting the impact of reinsured catastrophe and weather related events beyond historically normal average levels, in particular the hurricanes impacting the U.S. in the third quarter, Harvey, Irma and Maria (HIM) of CHF 472 million.

### Net Investment Result

Total investment income decreased by CHF 482 million or 10 percent to CHF 4,176 million in 2017. Dividend income from subsidiaries and associates decreased by CHF 847 million or 31 percent to CHF 1,881 million in 2017, mainly due to the absence of a dividend from Zurich Life Insurance Company Ltd and a one-off remittance by Farmers Group, Inc. in the previous year, partially offset by higher dividend income from Zurich Holding Ireland Limited, Zürich Beteiligungs-Aktiengesellschaft (Deutschland) and Zurich Reinsurance Company Ltd. The realized capital gains on subsidiaries and associates decreased by CHF 234 million to CHF 145 million. In 2017, the Company realized a capital gain of CHF 145 million on the sale of Zurich Insurance (Taiwan) Ltd. to Huatai Motor Co., whereas in 2016, CHF 379 million realized capital gains on subsidiaries and associates resulted from the sale of the Company's insurance business in Morocco to Allianz Group and in South Africa to Fairfax Financial Holdings Limited. The increase in write-ups on debt securities and equity securities is mainly driven by a rise in the value of the single investor funds as well as the overall improvement in equity securities markets compared to 2016.

Total investment expenses increased by CHF 328 million or 53 percent to CHF 951 million in 2017, mainly due to higher write-downs on investments in subsidiaries and associates of CHF 607 million in 2017 compared to CHF 264 million 2016, which includes impairments of a subsidiary in Bermuda and of Zurich Minas Brasil Seguros S.A. both in 2017 and 2016.

**Other financial income and expense**

Net other financial income and expense decreased by CHF 388 million to a net loss of CHF 109 million in 2017 due to lower gains and higher losses on derivative instruments.

**Interest expense on debt and other interest expense**

Total interest expense on debt and other interest expense decreased by CHF 180 million or 25 percent to CHF 544 million in 2017.

**Shareholder's Equity**

Shareholder's equity decreased by CHF 956 million to CHF 21,616 million for the year ended December 31, 2017, from CHF 22,572 million for the year ended December 31, 2016. This decrease reflects the net result of the net income after taxes of CHF 1,344 million and the dividend payment to ZIG of CHF 2,300 million in 2017, which was approved at the Annual General Meeting on March 29, 2017.

## C. Corporate governance and risk management

### C.1 Corporate governance

ZIC's corporate governance follows the principles of Zurich Insurance Group. The disclosure below highlights areas of ZIC's corporate governance, in particular where they are specific to Zurich Insurance Company Ltd. It should be read in conjunction with the Zurich Insurance Group's Financial Condition Report 2017, section C.1 Corporate Governance, pages 27 to 31 and following.

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 ZIC and ZIC Group, except for decisions reserved for the shareholders. For further information about the Zurich Insurance Group Board's responsibilities, see Zurich Insurance Group's Annual Report 2017, pages 54 and 55.

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.

All Directors of Zurich Insurance Group Ltd are also members of the ZIC Board of Directors. Mr. de Swaan also served as Chairman of that Board.

ZIC's corporate bodies include:

- the Chairman
- the Board Governance, Nominations & Corporate Responsibility Committee
- the Board Remuneration Committee
- the Board Audit Committee
- the Board Risk and Investment Committee
- the CEO
- the Executive Committee (ExCo)
- the executive staff

#### Board of Directors as of December 31, 2017

Board of Directors	Expiration of current term of office
Tom de Swaan, Chairman	2018
Fred Kindle, Vice Chairman	2018
Joan Amble	2018
Catherine Bessant	2018
Susan Bies	2018
Dame Alison Carnwath	2018
Christoph Franz	2018
Jeffrey Hayman	2018
Monica Mächler	2018
Kishore Mahubani	2018
David Nish	2018
Adrian Peyer, Corporate Secretary	

At the Annual General Meeting on March 29, 2017, all Board members were re-elected for another one-year term. Ms. Catherine Bessant was newly elected. The shareholders elected re-elected Mr. Tom de Swaan as Chairman. As members of the Board Remuneration committee, they elected Mr. Christoph Franz, Mr. Tom de Swaan, Mr. Fred Kindle and Mr. Kishore Mahubani. As independent voting rights representative, the shareholders elected Mr. lic. iur. Andreas G. Keller, attorney at law. See Zurich Insurance Group's Annual Report 2017, page 46 for further information on Board Committee membership in 2017.



Mr. Tom de Swaan, Mr. Fred Kindle and Ms. Susan Bies have decided to retire from the Board as of the AGM 2018 and did not stand for re-election.

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

- as members: Mr. Michel M. Liès, Ms. Joan Amble, Ms. Catherine Bessant, Dame Alison Carnwath, Mr. Christoph Franz, Mr Jeffrey Hayman, Ms. Monica Mächler, Mr. Kishore Mahbubani and Mr. David Nish
- as Chairman: Mr. Michel M. Liès
- as members of the Remuneration Committee: Ms. Catherine Bessant, Mr. Christoph Franz, Mr. Michel M. Liès and Kishore Mahbubani
- as independent voting rights representative: Mr. lic. 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 2018 which took place on April 4, 2018. In addition, Mr. Michel M. Liès was elected as new member to the Board (for a one-year term). Mr. Michel M. Liès was elected as new Chairman of the Board.

After the AGM 2018, the Board Committees are composed as follows:

- Governance, Nominations & Corporate Responsibility Committee: Mr. Michel M. Liès (Chair), Dame Alison Carnwath, Mr. Christoph Franz, Mr. Jeffrey Hayman, Ms. Monica Mächler
- Remuneration Committee: Mr. Christoph Franz, Ms. Catherine Bessant, Mr. Michel M. Liès, Mr. Kishore Mahbubani
- Audit Committee: Dame Alison Carnwath (Chair), Ms. Catherine Bessant, Ms. Monica Mächler, Mr. David Nish
- Risk and Investment Committee: Mr. Jeffrey Hayman (Chair), Ms. Joan Amble, Dame Alison Carnwath, Mr. Kishore Mahbubani, Mr. David Nish

The ZIC ExCo is headed by Mr. Mario Greco who also serves as Group CEO for Zurich Insurance Group (ZIG). The ZIC ExCo composition is equivalent to Zurich Insurance Group ExCo. On October 1, 2017 Alison Martin and Kathleen Savio were appointed Group Chief Risk Officer-Designate and CEO-Designate North America respectively and became members of ZIG and ZIC ExCo respectively. Cecilia Reyes, Group CRO, and Mike Foley, CEO North America, stepped down from their roles on January 1, 2018. Cecilia Reyes and Mike Foley retired from the ZIG and ZIC Executive Committee, respectively, as of March 1, 2018. Alison Martin took over as Group Chief Risk Officer and Kathleen Savio as CEO North America. Gary Shaughnessy will step down from his role as CEO Europe, Middle East & Africa (EMEA), and as a member of the ZIG ExCo. in the fourth quarter of 2018. Amanda Blanc will succeed Gary Shaughnessy as CEO EMEA and as member of the Executive Committee in the fourth quarter of 2018.

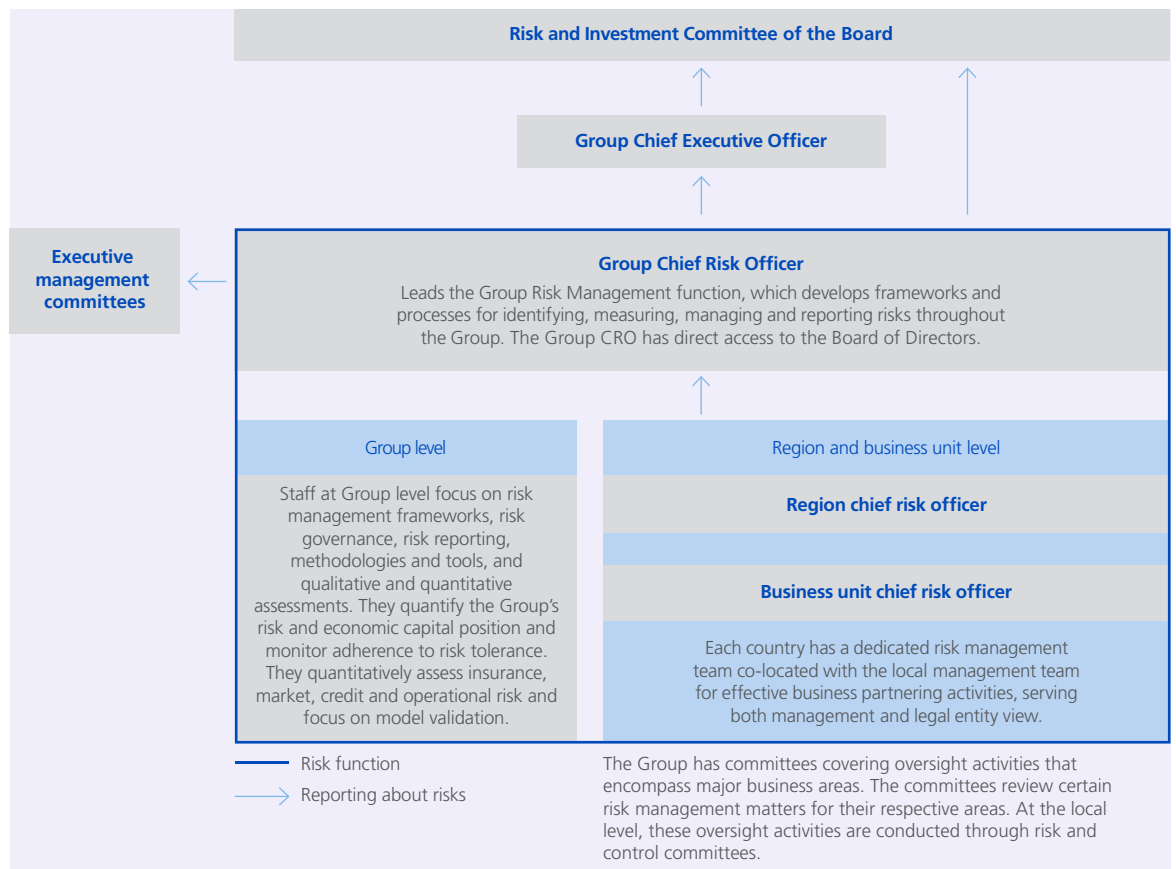
<b>Zurich Insurance Company Executive Committee as of December 31, 2017</b>	<b>Member</b>	<b>Position held</b>
	Mario Greco	Chief Executive Officer
	Urban Angehrn	Chief Investment Officer
	Jeff Dailey	CEO of Farmers Group, Inc.
	Claudia Dill	CEO Latin America
	Mike Foley	CEO North America
	Jack Howell	CEO Asia Pacific
	Alison Martin	Chief Risk Officer-Designate
	George Quinn	Chief Financial Officer
	Cecilia Reyes	Chief Risk Officer
	Kathleen Savio	CEO-Designate North America
	Gary Shaughnessy	CEO EMEA (Europe, Middle East & Africa)
	James Shea	CEO Commercial Insurance
	Kristof Terry	Chief Operating Officer

## C. Corporate governance and risk management *continued*

### C.2 Risk management

Risks and capital are managed at Group, regional and business unit level according to the Zurich's risk and capital management framework. The principles of enterprise and risk management are equally applicable to the Zurich Insurance Company Ltd and its subsidiaries (collectively the ZIC Group).

The risk management framework is based on a governance process that sets forth clear responsibilities for taking, managing, monitoring and reporting risks. The following paragraphs explain the essential elements of the risk management framework.



The Group Risk Management function is a Global function, led by the Group Chief Risk Officer. The risk function is independent of the business by being a vertically integrated function where all risk employees globally directly report into the Group CRO: Risk officers are embedded in the business, positioning them to support, advise, as well as independently challenge business decisions from a risk perspective. As business advisors on risk matters, the risk officers, equipped with technical risks as well as business skills, help foster a risk-aware culture in the business.

The Zurich Risk Policy is Zurich Insurance Group's main risk governance document; it sets standards for effective risk management throughout the Zurich Insurance Group. The policy describes the Zurich Insurance Group's risk management framework, identifies Zurich Insurance Group's principal risk types and defines the Zurich Insurance 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 Zurich Insurance Group regularly reports on its risk profile at local and Zurich Insurance Group levels. The Zurich Insurance 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 updates. In 2017, reporting was enhanced with in-depth risk insights into ongoing topics such as information security and cyber risk, insurance market trends, and the potential adverse impact that accelerating inflation and expectations about inflation could have on reserves, and into the potential effects on Zurich of such topical issues as the Brexit negotiations, and geopolitical developments in Asia and Latin America.

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

The Zurich Insurance Group regularly measures and quantifies material risks to which it is exposed. Zurich Insurance Group's policy is to maintain capital consistent with an 'AA' financial strength rating for the Zurich Insurance Group. The Zurich Insurance Group translates that goal into a quantified risk appetite and tolerance. The primary metric used to steer business is the Zurich Economic Capital Model (Z-ECM). The Z-ECM provides a key input to the Zurich Insurance Group's risk tolerance. The Z-ECM forms the basis for optimizing the Zurich Insurance Group's risk-return profile by providing consistent risk measurement across the Zurich Insurance Group.

### C.3 Compliance

Zurich Insurance Group is committed to complying with applicable legal, regulatory and internal requirements, professional and industry standards. Accordingly, the Group's core values are founded on the principle that it acts lawfully and seeks to do what is right. The Compliance function is control function responsible for:

- delivering compliance solutions by providing expertise regarding the management and maintenance of policies, practical guidance, training and controls and processes relating to compliance risks
- providing assurance, as part of the second line of defense, to management that compliance risks within the scope of the function are appropriately identified and managed
- assisting management to promote the ethics-based foundation of Zurich's corporate culture

The operationalization of the compliance framework relies on regular global compliance risk and assurance assessments, which support the compliance function's risk-based strategic and annual planning conducted in consultation with business partners as well as its monitoring activities. Through a comprehensive program, the compliance function implements, embeds and monitors internal compliance policies and guidelines. As part of this program, compliance officers introduce new employees to applicable rules and are involved in the integration of newly acquired companies. To help employees understand their responsibilities under Zurich's code of conduct and internal compliance policies, all employees receive yearly ethical and compliance training. In addition, each year all Zurich employees confirm their understanding of, and compliance with Zurich's code of conduct and internal policies.

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 our Zurich Insurance Group's policies. Employees are free to report their concerns to management, Human Resources, Zurich Insurance 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.

The ZIC compliance function consists of compliance professionals overseen by the ZIC Chief Compliance Officer, who is also the Chief Compliance Officer of ZIC Group. The ZIC Chief Compliance Officer regularly provides reports to the ZIC Audit Committee and has an additional reporting line to the Chairman of the Audit Committee as well as appropriate access to the Chairman of the ZIC Board.

## C. Corporate governance and risk management *continued*

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### C.4 Internal Control System

#### **Risk management and internal controls**

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. 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 2017, page 74.

Zurich Insurance Group considers controls key instruments for managing operational risk. The Board has overall responsibility for the Group's risk management and internal control functions, in particular for their adequacy and integrity. The internal control system increases the reliability of the financial reporting, makes operations more effective, and aims to ensure legal and regulatory compliance. The internal controls system is designed to mitigate rather than eliminate the material risk that business objectives might not be met. It provides reasonable assurance against material financial misstatements or operational losses.

Zurich Insurance Group promotes risk awareness and encourages understanding of controls through communication and training. Primary risk management and internal control systems are designed at Zurich Insurance 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 controls. Key processes and controls in the organization are subject to reviews by management, Group Risk Management, Group Compliance, and Group Audit. Significant risks and associated mitigation actions are reported regularly to the Risk and Investment Committee and the Audit Committee of the Board.

In 2017, the Zurich Insurance Group further enhanced specific areas of the internal control framework, focusing on key financial reporting controls as well as controls to ensure the integrity of Zurich Insurance Group's regulatory and internal capital calculations. Key control issues or issues affecting more than one business unit may be categorized as having Group-level significance. The Risk and Investment Committee and the Audit Committee of Zurich Insurance Group's Board monitor resolution of such issues.

Zurich Insurance Group's Disclosure Committee, chaired by the Head of Group Financial Accounting and Reporting, assesses the content, accuracy and integrity of the disclosures and the effectiveness of the internal controls over financial reporting. The conclusions result in a recommendation to the Group Chief Financial Officer to release the financial disclosures to the Audit Committee of the Zurich Insurance Group's Board. This ensures that both Zurich Insurance Group's Board and management have sufficient opportunity to review and challenge the Zurich Insurance Group's financial statements and other significant disclosures before they are made public.

The Risk and Investment Committee of the Zurich Insurance Group's Board has reviewed the effectiveness of the Zurich Insurance Group's risk management system including the Zurich Insurance Group's risk tolerance and enterprise-wide risk governance framework, and the Audit Committee of the Zurich Insurance Group's Board has reviewed the effectiveness of the system of control over financial reporting for the calendar year 2017 and has reported to the Zurich Insurance Group's Board accordingly and have been or are being addressed by Zurich Insurance Group.

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

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## C.5 Internal Audit Function

Zurich's Insurance Group's internal audit function (Group Audit) is tasked with providing independent and objective assurance to ZIC's Board, Audit Committee, CEO and management. This is accomplished by developing a risk-based plan, which is updated on an ongoing basis, as the risks faced by the business. The plan is based on the full spectrum of business risks including concerns and issues raised by the Audit Committee, management and other stakeholders. 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). Key issues raised by Group Audit are communicated to the responsible management function, ZIC's CEO and the Audit Committee using a suite of reporting tools.

See the Zurich Insurance Group's Annual Report 2017, page 77 or more information on Group Audit.

## D. Risk profile

Risk and capital are managed at the Zurich Insurance Group, regional and business unit level according to Zurich Insurance Group's risk and capital management framework. The principles of the Zurich Insurance Group's enterprise risk management described in this chapter are equally applicable to the Zurich Insurance Company Ltd (ZIC) and its consolidated subsidiaries (collectively the 'ZIC Group'). There is no material difference in how risk and capital are managed at the Zurich Insurance Group and the ZIC Group.

The significant risks for ZIC, as measured by the SST target capital, are market risk, premium and reserve risk, and natural catastrophe risk. The risk associated with the direct general insurance business in Switzerland and its branches as well as assumed reinsurance business from its subsidiaries makes for approximately 32 percent of the SST target capital. Of that underwriting risk is the single greatest source of potential risk followed by market risk. See section G, 'Solvency', page 48 and 49 for an analysis of the SST target capital contribution.

### D.1 Insurance risk

Zurich Insurance Group diversifies its sources of revenue by geography, line of business, product and customer, and therefore is not exposed to concentrations of insurance risk beyond our risk appetite.

Insurance risk is the inherent uncertainty regarding the occurrence, amount or timing of insurance liabilities. 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. The exposure is transferred to ZIC Group through the underwriting process. Zurich Insurance Group actively seeks to write those risks it understands and that provide a reasonable opportunity to earn an acceptable profit. Zurich Insurance Group manages the customer risks it assumes, and minimizes unintended underwriting risks through such means as:

- Establishing limits for underwriting authority
- Requiring specific approvals for transactions above established limits or new products
- Using a variety of reserving and modeling methods
- Ceding insurance risk through external proportional or non-proportional reinsurance treaties and facultative single-risk placement. The Zurich Insurance Group centrally manages reinsurance treaties.

In terms of risk associated with the direct property and casualty business in Switzerland, the management continuously monitors the reserve adequacy as a key risk. Management monitors in particular developments regarding the impact of interest rates on the level of reserve for motor and property and casualty business.

#### D.1.1 Property and casualty insurance risk

Property and casualty risk 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. Business risk for property & casualty predominantly relates to unexpected increases in the expenses to claims handling, underwriting, and administration. The following provides an overview of the ZIC Group's main lines of business:

- Motor includes automobile physical damage, loss of the insured vehicle and automobile third-party liability insurance.
- Property includes fire risks (e.g., fire, explosion and business interruption), natural perils (e.g., earthquake, windstorm and flood), engineering lines (e.g., boiler explosion, machinery breakdown and construction) and marine (e.g., cargo and hull).
- Liability includes general/public and product liability, excess and umbrella liability, professional liability including medical malpractice, and errors and omissions liability.
- Special lines includes directors and officers, credit and surety, crime and fidelity, accident and health, and crop.
- Worker injury includes workers' compensation and employers' liability.

The Zurich Insurance Group's underwriting strategy aims to take advantage of the diversification of property and casualty risks across lines of business and geographic regions. Zurich Insurance Group's underwriting governance is applied throughout Zurich Insurance Group.

Underwriting discipline is a fundamental part of managing insurance risk. The Zurich Insurance Group sets limits on underwriting capacity, and delegates authority to individuals based on their specific expertise. The Zurich Insurance Group sets appropriate pricing guidelines, which are monitored regularly. Technical reviews are implemented to confirm that underwriters perform within their authority and adhere to underwriting philosophies and policies. The Zurich Insurance Group has governance procedures to review and approve potential new products to evaluate whether the risks are well understood and justified by the potential rewards.

Actual losses on claims provisions may be higher or lower than anticipated. Property and casualty insurance reserves are therefore regularly estimated, reviewed and monitored. The total loss and loss adjustments expense reserves are based on work performed by qualified and experienced actuaries at local, regional and Zurich Insurance Group levels.

To arrive at their reserves estimates, the actuaries take into consideration, among other things, the available facts, historical trends and patterns of loss payments, exposure growth, court decisions, economic conditions, inflation, and public attitudes that may affect the ultimate cost of claim settlement. Inflation is monitored on a country basis; the monitoring process relies on both Zurich Insurance Group's economic view on inflation and specific claims activity, and feeds into actuarial models and Zurich Insurance Group's underwriting processes and pricing. To ensure a common understanding of business insights and reserves for reserve analysis, financial plans, underwriting and pricing decisions Zurich Insurance Group has established a culture of continuous cross-functional collaboration between underwriting, actuarial (pricing and reserving), claims, finance, sales and distribution, risk engineering and risk management underpinned by quarterly meetings on local and Group level.

In most cases, these actuarial analyses are conducted at least twice a year for on-going business according to agreed timetables. Analyses are performed by product line, type and extent of coverage and year of occurrence. As with any projection, claim reserve estimates are inherently uncertain due to the fact that the ultimate liability for claims will be affected by trends as yet unknown, including future changes in the likelihood of claimants bringing suit, the size of court awards, and claimants' attitudes toward settlement of their claims.

The Zurich Insurance Group monitors potential new emerging risk exposures. Zurich Insurance Group has an Emerging Risk Group, with cross-functional expertise from core insurance functions such as underwriting, claims, and risk to identify, assess and recommend actions for such risks.

In addition to the specific risks insured, the Zurich Insurance Group is exposed to losses that could arise from natural and man-made catastrophes. The main concentrations of risks arising from such potential catastrophes are regularly reported to executive management. The most important peril regions and natural catastrophes are U.S. and Caribbean tropical cyclone, Europe windstorm and California earthquake.

Tables 1.a and 1.b show the ZIC Group's concentration of risk within the Property & Casualty business by region and line of business based on direct written premiums before reinsurance. Property & Casualty premiums ceded to reinsurers (including retrocessions) amounted to USD 6.5 billion and USD 7.0 billion for the years ended December 31, 2017 and 2016, respectively. Reinsurance programs are managed on a global basis, and therefore, net premium after reinsurance is monitored on an aggregated basis.

**Table 1.a**

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

in USD millions, for the year ended  
December 31, 2017

	<b>Motor</b>	<b>Property</b>	<b>Liability</b>	<b>Special lines</b>	<b>Worker injury</b>	<b>Total</b>
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
<b>Total</b>	<b>7,681</b>	<b>7,745</b>	<b>5,443</b>	<b>7,405</b>	<b>3,408</b>	<b>31,681</b>

## D. Risk profile *continued*

Property & Casualty – Direct written premiums and policy fees by line of business – prior period	Table 1.b						
	in USD millions, for the year ended December 31, 2016						
	Motor	Property	Liability	Special lines	Worker injury	Total	
Europe, Middle East & Africa	4,715	4,045	2,026	1,955	361	13,102	
North America	1,689	2,733	3,258	3,819	2,844	14,342	
Other regions	1,382	1,196	357	1,249	143	4,326	
<b>Total</b>	<b>7,785</b>	<b>7,973</b>	<b>5,641</b>	<b>7,023</b>	<b>3,347</b>	<b>31,770</b>	

### Analysis of sensitivities for Property and Casualty risk

Tables 2.a and 2.b show the sensitivity of net income before tax and the sensitivity of net assets, using the ZIC Group effective income tax rate, showing what would happen in the event of adverse development in the net loss ratio by one percentage point. Such an increase could develop either due to the insured events happening more frequently or due to resulting claims becoming more severe, or from a combination of frequency and severity. 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 tables 2.a and 2.b, each additional percentage point increase in the loss ratio would have a linear impact on net income before tax and net assets. Zurich Insurance 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	Table 2.a						
	in USD millions, for the year ended December 31, 2017						
	Europe, Middle East & Africa	North America	Asia Pacific	Latin America	Reinsurance	Total	
<b>+1% in net loss ratio</b>							
Net income before tax	(119)	(105)	(19)	(19)	1	(260)	
Net assets	(79)	(70)	(13)	(13)	1	(174)	

Insurance risk sensitivity for the Property & Casualty business – prior period	Table 2.b						
	in USD millions, for the year ended December 31, 2016						
	Europe, Middle East & Africa	North America	Asia Pacific	Latin America	Reinsurance	Total	
<b>+1% in net loss ratio</b>							
Net income before tax	(128)	(100)	(19)	(16)	2	(261)	
Net assets	(89)	(69)	(13)	(11)	2	(181)	

### D.1.2 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 – the risk associated with Zurich Insurance 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 – the risk associated with a loss or potential loss from counterparties failing to fulfill their financial obligations, which is analyzed in the ‘market risk’ section, including ‘investment credit risk’ and ‘other credit risk’ sections.

A more diversified portfolio of risks is less likely than an undiversified portfolio to be affected across the board by a change in any subset of the risks. For example, the offsetting effects between unit-linked and traditional business reduce some of the risk associated with the life business.

The Zurich Insurance Group has local product development committees and a Zurich Insurance Group-level product approval committee to analyze potential new life products that could significantly increase or change the nature of its risks. The Zurich Insurance Group regularly reviews the continued 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 Zurich Insurance Group’s traditional business. Risks that are inherent in these products are largely passed on to the policyholder, although a portion of the 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 explicit 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. Epidemics and lifestyle changes are among the most significant factors that could result in earlier or more claims than expected. Disability, defined in terms of the ability to perform an occupation, could be affected by 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 Zurich Insurance 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.

Interest rate guarantees (with concentration in traditional, guaranteed business in Germany and Switzerland or variable annuity business in the U.S. containing minimum guaranteed death benefits) expose Zurich Insurance Group 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 matching and hedging.

The Zurich Insurance Group defines concentration risk in the life business as the risk of the 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.

Table 3 shows the ZIC Group’s concentration of risk within Life by region and line of business based on reserves for life insurance on a net basis. These reserves for life insurance also include policyholder surplus reserves with a loss absorbing capacity, predominantly in Germany (USD 8.2 billion) and the UK (USD 0.6 billion). The ZIC Group’s exposure to life insurance risks varies significantly by geographic region and line of business and may change over time.

## D. Risk profile *continued*

### Reserves, net of reinsurance, by region

Table 3

in USD millions, as of December 31, 2017

	Unit-linked insurance contracts		Other life insurance liabilities		Total reserves	
	2017	2016	2017	2016	2017	2016
<b>Life</b>						
Europe, Middle East & Africa	46,802	40,668	80,499	72,666	127,302	113,333
of which:						
United Kingdom	18,699	17,359	3,051	2,618	21,750	19,977
Germany	17,178	14,183	39,593	35,159	56,771	49,341
Switzerland	731	718	18,063	17,586	18,794	18,304
Italy	1,073	394	4,148	3,046	5,220	3,440
Ireland	3,133	2,832	2,143	1,909	5,276	4,740
Spain	856	813	11,157	10,320	12,014	11,133
Zurich international	4,784	4,068	212	334	4,996	4,402
Rest of Europe, Middle East & Africa	349	302	2,131	1,694	2,480	1,996
North America <sup>1</sup>	9,298	885	840	503	10,138	1,388
Asia Pacific	584	469	2,667	2,513	3,251	2,982
Latin America	13,687	11,961	5,021	4,657	18,708	16,618
Subtotal	70,371	53,983	89,027	80,339	159,398	134,322
<b>Other businesses<sup>1,2</sup></b>	<b>5,042</b>	<b>11,546</b>	<b>7,733</b>	<b>10,205</b>	<b>12,775</b>	<b>21,752</b>
<b>Total</b>	<b>75,413</b>	<b>65,530</b>	<b>96,760</b>	<b>90,544</b>	<b>172,173</b>	<b>156,074</b>

<sup>1</sup> In 2017, the Group transferred a portfolio of stable value products (SVP) marketed with life insurance policies (Bank Owned Life Insurance, BOLI) from Non-Core Businesses (part of Other businesses) to Life. The change resulted in a transfer of USD 8.3 billion of investments for unit-linked contracts and of reserves for unit-linked contracts.

<sup>2</sup> The Other businesses are defined in note 27 of the consolidated financial statements.

### Modeling natural catastrophes and risks from man-made catastrophes

While specific catastrophes are unpredictable, modeling helps to determine potential losses and the likelihood of such losses. The Zurich Insurance Group uses adjusted third-party models to manage its underwriting and accumulations to stay within intended exposure limits and to guide how much reinsurance Zurich Insurance Group buys.

Man-made catastrophes include such risks as industrial accidents and terrorism attacks. Zurich Insurance Group's experience in monitoring potential exposures to natural catastrophes is also applicable to threats posed by man-made catastrophes.

For more information, see Zurich Insurance Company Group's Annual Report 2017, page 13.

### Risk mitigation techniques and their effectiveness

The Zurich Insurance 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 Zurich Insurance Group follows a centralized reinsurance treaty purchasing strategy for both its Property & Casualty (P&C) and Life, and bundles programs, where appropriate, to benefit from diversification and economies of scale. In support of Zurich Insurance Group's empowerment-based management model and to align risk-bearing capacities between the Zurich Insurance Group and individual country operations, a new internal reinsurance vehicle was introduced in 2017. In addition, to actively manage and reduce potential claims-recovery risks on facultative property and casualty facilities. Operational excellence was also the driver for the consolidation of several individual 'property per risk' treaties into one global protection.

The Zurich Insurance Group structures and aligns its external reinsurance protection to its capital position to achieve an optimum risk-return ratio. This includes a participation in the underlying risks through self-retentions. Zurich Insurance Group manages its central reinsurance purchasing according to these principles. For more information, see Zurich Insurance Company Group's Annual Report 2017, page 13.

## D.2 Market risk including investment credit risk

Market risk remained broadly stable during 2017 following a period of active de-risking in the second half of 2016.

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

- Equity market prices
- Property market prices
- Interest rate risk
- Credit and swap spread changes
- Default of issuers
- Currency exchange rates

The Zurich Insurance 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 Zurich Insurance Group's risk tolerance and local regulatory constraints.

The Zurich Insurance Group has policies and limits to manage market risk and keep its strategic asset allocation in line with its risk capacity. Zurich Insurance Group 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. Zurich Insurance 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 Zurich Insurance Group regularly reviews its capacity to hold illiquid investments.

The Asset/Liability Management Investment Committee reviews and monitors Zurich Insurance Group's strategic asset allocation and tactical boundaries, and monitors Zurich Insurance Group's asset/liability exposure. The Zurich Insurance Group oversees the activities of local asset/liability management investment committees and regularly assesses market risks at both the Zurich Insurance 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 Zurich Insurance Group applies processes to manage market risks and to analyze market risk hotspots. Action to mitigate risk are taken if necessary to manage fluctuations affecting asset/liability mismatch and risk-based capital.

The Zurich Insurance Group may use derivative financial instruments to limit market risks arising from changes in currency exchange rates, interest rates and equity prices, from credit quality of assets and liabilities and commitments to third parties. The Zurich Insurance 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. The latter instruments include cross-currency interest rate swaps in fair value hedges and cross-currency swaps in cash flow hedges of Zurich's borrowings, in order to mitigate exposure to foreign currency and interest rate risk. In compliance with Swiss insurance regulation, the Zurich Insurance Group's policy prohibits speculative trading in derivatives, meaning a pattern of 'in and out' activity without reference to an underlying position. The Zurich Insurance 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.

## D. Risk profile *continued*

### **Risk from equity securities and real estate**

The Zurich Insurance Group is exposed to risks from price fluctuations on equity securities and property that could affect the Zurich Insurance Group's liquidity, reported income, surplus and regulatory capital position. Equity risk exposure includes common stocks, including equity unit trusts, 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, listed 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 property, but these risks are borne by policyholders. However, the Zurich Insurance 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 Zurich Insurance Group manages its risks from equity securities and property as part of the overall investment risk management process, and applies limits as expressed in policies and guidelines. Specifically, Zurich Insurance Group 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 Zurich Insurance Group has the capability and processes in place to change the exposure to the key equity markets within a short time frame through the use of derivatives.

### **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 Zurich Insurance Group is exposed to interest-rate risk including from debt securities, reserves for insurance contracts, liabilities for investment contracts, employee benefit plans, and loans and receivables.

The Zurich Insurance 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. Movement of credit spreads are influenced by expected probability of default, expected losses in cases of default of issuers, the uncertainty of default probabilities and losses.

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

### **Analysis of market risk sensitivities for interest rate, equity and credit spread risks**

Zurich Insurance Company Group investments sensitivities

The economic market risk sensitivities for the fair value for Group investments before tax as of 2017 is USD (10.7) billion (USD (10.4) billion as of 2016) for a 100-basis-point increase in interest rate. For a 100-basis-point decrease in interest rate, the sensitivity is USD 12.0 billion (USD 11.9 billion of 2016). For a 10% decline in equity market, ZIC Group investments drop in value by USD 1.2 billion compared to 1.1 billion as of 2016. A 100-basis-point increase in credit spreads results in a decrease of USD 5.4 billion compared to USD 5.3 billion as of 2016.

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

### **Risk from defaults of counterparties**

#### **Debt securities**

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

### Debt securities by rating of issuer

Table 4

as of December 31

Rating	2017		2016	
	USD millions	% of total	USD millions	% of total
AAA	37,426	25.2%	28,503	20.3%
AA	39,664	26.7%	46,497	33.2%
A	26,011	17.5%	23,133	16.5%
BBB	38,360	25.9%	35,733	25.5%
BB and below	6,033	4.1%	5,193	3.7%
Unrated	767	0.5%	1,122	0.8%
<b>Total</b>	<b>148,261</b>	<b>100.0%</b>	<b>140,181</b>	<b>100.0%</b>

Table 4 shows the credit risk exposure of debt securities, by issuer credit rating. As of December 31, 2017, 95.4 percent of the ZIC Group's debt securities was investment grade and 25.2 percent was rated 'AAA'. As of December 31, 2016, 95.5 percent of debt securities was investment grade and 20.3 percent was rated 'AAA'. The shift in portfolio exposure from 'AA' to 'AAA' largely reflects the outcome of a review of the ratings assigned to the U.S. agency mortgage-backed-securities, which moved assets from 'AA+' to 'AAA'.

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

The risk-weighted average issuer credit rating of the ZIC Group's debt securities is 'A-' in 2017, compared with 'BBB+' in 2016.

As of December 31, 2017, the largest concentration in the ZIC Group's debt securities portfolio was in governments, supranationals and similar at 47.6 percent. In all other categories, a total of USD 31.7 billion (40.8 percent) was secured. As of December 31, 2016, 47.5 percent of the ZIC Group's debt portfolio was invested in governments, supranationals and similar. In all other categories, a total of 31.3 billion (42.5 percent) was secured.

In addition to debt exposure, the ZIC Group had loan exposure of USD 4.9 billion and USD 4.3 billion to the German Central Government or the German Federal States as of December 31, 2017 and 2016, respectively. For more information, see the 'other loans' section.

The second largest concentration in the ZIC Group's debt securities portfolio is in financial institutions (including banks), at 19.6 percent, of which 38.4 percent is secured.

The third-largest concentration in the ZIC Group's debt securities portfolio is in structured finance securities (mortgage-backed securities (MBS)/asset-backed securities (ABS) and similar).

#### Cash and cash equivalents

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

For ZIC Group, Cash and cash equivalents amounted to USD 8.5 billion as of December 31, 2017 and USD 7.1 billion as of December 31, 2016. The risk-weighted average rating of the overall cash portfolio is 'A-' as of December 31, 2017 and December 31, 2016. 72 percent of the total was with the 10 largest global banks, whose risk-weighted average rating remain stable at 'A' as of December 31, 2017 and December 31, 2016.

#### Mortgage loans and other loans

The ZIC Group's largest mortgage loan portfolios are held in Germany (USD 2.6 billion) and in Switzerland (USD 3.6 billion); these are predominantly secured against residential property but also include mortgages secured by commercial property. ZIC Group invests in mortgages in the U.S. (USD 0.6 billion); these are mainly participations in large mortgage loans secured against commercial property.

## D. Risk profile *continued*

The credit risk arising from other loans is assessed and monitored together with the 'debt securities' portfolio: 59.6 percent of the reported loans are to governments, supnationals and similar, of which 94.2 percent are to the German federal government or the German federal states. As of December 31, 2017, USD 5.1 billion were rated as 'AAA' (58.1 percent) compared with 3.9 billion as of December 31, 2016, USD 0.7 billion as 'AA' (7.7 percent) compared to 0.6 billion as of December 31, 2016, USD 0.6 billion as 'A' (6.8 percent) compared to 3.3 billion as of December 31, 2016, USD 1.2 billion as 'BBB' and below (13.5 percent) compared with 1.3 billion of December 31, 2016, and USD 1.2 billion as unrated (14.0 percent) compared with none as of December 31, 2016.

### *Derivatives*

The replacement value of outstanding derivatives represents a credit risk to the Zurich Insurance Group. These instruments include interest rate and cross-currency swaps, forward contracts and purchased options. A potential exposure also arises from possible changes in replacement values. The Zurich Insurance 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 the Zurich risk policy manuals. The Zurich Insurance Group's standard practice is to only transact derivatives with those counterparties for which the Zurich Insurance Group has 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 Zurich Insurance Group further mitigates credit exposures from derivative transactions by using exchange-traded instruments whenever possible.

### **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 Zurich Insurance 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 the 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 Zurich Insurance 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 Zurich Insurance Group. Zurich Insurance Group hedges these residual local mismatches within an established limit through a central balance sheet. The monetary currency risk exposure on local balance sheets is considered immaterial.

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

Table 5 shows the sensitivity of the total IFRS equity to changes in exchange rates for the main functional currencies to which the ZIC Group is exposed. Positive values represent an increase in the value of the ZIC Group's total equity.

<b>Table 5</b>			
in USD millions, as of December 31			
<b>Sensitivity of the Group's total IFRS equity to exchange rate fluctuations</b>	<b>10% increase in</b>		
		<b>2017</b>	<b>2016</b>
	EUR/USD rate	467	515
	GBP/USD rate	245	208
	CHF/USD rate	447	457
	BRL/USD rate	147	139
	Other currencies/USD rates	645	546

The sensitivities show the effects of a change of the exchange rates only, while other assumptions remain unchanged. The sensitivity analysis does not take into account management actions that might be taken to mitigate such changes. The sensitivities do not indicate a probability of such events occurring in the future. They do not necessarily represent Zurich Insurance Group's view of expected future market changes. While table 5 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

The overall credit quality of the reinsurance assets portfolio remains high and stable.

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 Zurich Insurance Group's exposure to other credit risk is derived from the following main categories of assets:

- Reinsurance assets
- Receivables

The Zurich Insurance Group's objective in managing credit risk exposures is to maintain them within parameters that reflect the Zurich Insurance Group's strategic objectives, and risk appetite and tolerance. Sources of credit risk are assessed and monitored, and the Zurich Insurance Group has policies to manage specific risks within various subcategories of credit risk. To assess counterparty credit risk, the Zurich Insurance 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 Zurich Insurance Group generally applies the lowest, unless other indicators justify an alternative, which may be an internal credit rating.

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

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

#### *Credit risk concentration*

The Zurich Insurance 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 Zurich Insurance Group's limits for counterparty aggregation as of December 31, 2017 or December 31, 2016.

On-balance sheet exposures are the main source of credit risk. Off-balance sheet credit exposures are related primarily to certain insurance products and collateral used to protect underlying credit exposures on the balance sheet. The ZIC Group also has off-balance sheet exposures related to undrawn loan commitments of USD 16 million and USD 7 million as of December 31, 2017 and 2016, respectively.

#### *Credit risk related to reinsurance assets*

Zurich Insurance Group's Corporate Reinsurance Security Committee manages the credit quality of cessions and reinsurance assets. The Zurich Insurance Group typically cedes new business to authorized reinsurers with a minimum rating of 'A-'. As of December 31, 2017 and 2016 respectively, 52 percent and 66 percent of the business ceded to reinsurers rated below 'A-' or to reinsurers that are not rated, is collateralized. Of the business ceded to reinsurers that fall below 'A-' or are not rated, 51 percent was ceded to captive insurance companies, in 2017 and 32 percent in 2016.

Reinsurance assets included reinsurance recoverables (the reinsurers' share of reserves for insurance contracts) of USD 21 billion and USD 18.4 billion, and receivables arising from ceded reinsurance of USD 1.2 billion and USD 1.4 billion as of December 31, 2017 and 2016, respectively, gross of allowance for impairment. Reserves for potentially uncollectible reinsurance assets amounted to USD 94 million as of December 31, 2017 and December 31, 2016. The Zurich Insurance 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 table 6 are shown before taking into account collateral such as cash or bank letters of credit and deposits received under ceded reinsurance contracts. Except for an immaterial amount, letters of credit are from banks rated 'A-' and better. Compared with December 31, 2016, collateral increased by USD 1.0 billion to USD 9.4 billion

## D. Risk profile *continued*

Table 6 shows reinsurance premiums ceded and reinsurance assets split by rating.

Reinsurance assets and unsecured reinsurance assets by rating of reinsurer and captive		2017		2016					
		USD millions	% of total	USD millions	% of total	USD millions	% of total		
Rating									
AAA		–	0.0%	–	0.0%	29	0.1%	29	0.3%
AA		5,939	26.9%	5,378	42.5%	5,402	27.4%	4,479	39.5%
A		10,562	47.9%	4,619	36.5%	8,625	43.7%	4,903	43.3%
BBB		1,634	7.4%	974	7.7%	1,366	6.9%	877	7.7%
BB		247	1.1%	57	0.5%	566	2.9%	311	2.7%
B and below		638	2.9%	168	1.3%	395	2.0%	160	1.4%
Unrated		3,036	13.8%	1,446	11.4%	3,367	17.0%	576	5.1%
<b>Total<sup>1</sup></b>		<b>22,056</b>	<b>100.0%</b>	<b>12,642</b>	<b>100.0%</b>	<b>19,749</b>	<b>100.0%</b>	<b>11,335</b>	<b>100.0%</b>

<sup>1</sup> The value of the collateral received amounts to USD 9.4 billion and USD 8.4 billion as of December 31, 2017 and 2016, respectively.

### *Credit risk related to receivables*

The ZIC 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 ZIC Group, or to pay claims to customers on behalf of the ZIC Group. The Zurich Insurance Group has policies and standards to manage and monitor credit risk related to intermediaries. The Zurich Insurance Group requires intermediaries to maintain segregated cash accounts for policyholder money. The Zurich Insurance 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 Zurich Insurance Group reports internally on Zurich Insurance 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.



## D.4 Operational risk

The Group uses a scenario-based approach to quantify the capital required for operational risk. The top three risk-scenario clusters relate to regulatory compliance, business conduct and M&A transactions.

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 Insurance Group has a comprehensive framework with a common approach to identify, assess, quantify, mitigate, monitor and report operational risk within the Zurich Insurance Group. Within this framework, the Zurich Insurance Group:

- Uses a scenario-based approach to assess, model and quantify the capital required for operational risk for business units under extreme circumstances.
- Documents and reviews loss events exceeding a threshold determined by the Zurich Risk Policy. Remedial actions 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 Zurich Insurance 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 Zurich Insurance 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.

Zurich Insurance Group mitigates and responds to cyber risks and threats to data security. Data held by Zurich Insurance Group's business partners is protected through contractual arrangements and controls that are built into 'cloud governance' procedures designed to secure Zurich's data in accordance with regulatory requirements and the Zurich Insurance Group's information security policies.

The Zurich Insurance Group regularly assesses risks associated with strategic suppliers to verify that suppliers remain financially viable and able to deliver services, and that the Zurich Insurance Group is not exposed to geographic and supplier concentration risks.

Preventing, detecting and responding to fraud are embedded in Zurich Insurance Group's business. Both claims and non-claims fraud are included in the common framework for assessing and managing operational risks.

In terms of operational risk associated with the direct general insurance business in Switzerland, the management actively manages the risk related to IT applications. Business applications are built on a variety of technologies, which affects complexity, costs and knowledge needs. The management has put in place an IT roadmap and conducts specific risk assessments to address such risks. The management also closely addresses data protection and security risk with a broad catalogue of actions to prevent information leaks, and inappropriate use of confidential customer data.

## D. Risk profile *continued*

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### D.5 Liquidity risk

Liquidity risk is the risk that the Zurich Insurance 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 Insurance Group'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 Zurich Insurance Group assesses, monitors and manages its liquidity needs on an ongoing basis.

Zurich Insurance Group's Group-wide liquidity management policies and specific guidelines govern how ZIC Group's business plan, manage and report liquidity and conduct regular stress tests for all major carriers. 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 Zurich Insurance Group had to recapitalize local balance sheets. Similar guidelines apply at Group level, and detailed liquidity forecasts are regularly conducted based on local businesses' input and the Zurich Insurance Group's forecasts. As part of its liquidity management, the Zurich Insurance Group maintains sufficient cash and cash equivalents and high-quality, liquid investment portfolios to meet outflows under expected and stressed conditions. The Zurich Insurance Group also maintains internal liquidity sources that cover potential liquidity needs, including those that might arise in times of stress. The Zurich Insurance Group takes into account the amount, availability and speed at which these sources can be accessed. The Zurich Insurance 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 Zurich Insurance Group maintains a range of maturities for external debt securities. A potential source of liquidity risk is the effect of a downgrade of the Zurich Insurance Company Ltd's credit rating. This could affect the Zurich Insurance 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 Zurich Insurance Group's liquidity framework.

The Zurich Insurance Group regularly analyzes the liquidity of the investment assets, and monitors that the liquidity of assets stays in line with the liquidity needs. During 2017, Zurich Insurance Group was within its capacity to hold illiquid assets.

The Zurich Insurance 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 Zurich Insurance Group's actual and forecast liquidity, possible adverse scenarios that could affect the Zurich Insurance Group's liquidity and possible liquidity needs from the Zurich Insurance Group's main subsidiaries, including under conditions of stress.

The Zurich Insurance 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 Zurich Insurance Group on a timely basis.

## D.6 Other material risks

### D.6.1 Strategic risk

Strategic risk corresponds to the risk of being unable to achieve strategic targets. Strategic risks can arise from:

- Inadequate assessment of strategic plans
- Ineffective implementation of strategic plans
- Unexpected changes to assumptions underlying strategic plans

Zurich Insurance Group defines the strategy as the long term plan of action designed to allow it to achieve its goals and aspirations.

The Zurich Insurance 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 regular TRP process, in 2017 the Executive Committee (ExCo) assessed the key strategic risk scenarios, looking at 2018 and beyond. The Group TRP identified and assessed risks from both external and internal factors. External risks include changes in inflation or interest rates beyond expected forecasts; geopolitical uncertainties such as Brexit; looming European banking crisis; insurance market trends and changing customer expectations. Internally, key risks include Zurich's ability to engage and service customers at the desired level, technical excellence in underwriting, information security and cyber threats, challenges related to Zurich's workforce, and managing the growing requirements and complexity of the global regulatory landscape. Mitigating actions have been assigned to executive owners and their status is reviewed at least quarterly.

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

### D.6.2 Risks to the Zurich Insurance Group's reputation

Risks include acts or omissions by the Zurich Insurance Group or any of its employees that could damage Zurich Insurance Group's reputation, or both, and lead to a loss of trust among its stakeholders. Every risk type has potential consequences for Zurich Insurance Group's reputation.

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

## E. Valuation

### E.1 Overarching market-consistent valuation principle

The following section presents ZIC 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 the insurance liabilities. Under the SST, the MCBS is essential to determine the company'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 in accordance with, and not at variance from information that can be obtained from trade in liquid 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			
	<b>Mark-to-market</b>	Highest priority for third-party assets, IFRS equity instruments and eligible capital instruments	Fair value as defined in the consolidated IFRS financial statements;
	<b>Mark-to-model</b>	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).
	<b>IFRS carrying value</b>		As a practical expedient, IFRS carrying value other than fair value is used as proxy for market-consistent valuation, provided such measurement can be considered reasonable. For example: <ul style="list-style-type: none"> <li>- It represents current balances (e.g., cash accounts); or</li> <li>- It involves high frequency turnover with daily settlements (e.g., operational clearing accounts); or</li> <li>- It is expected to be settled/realized within relatively short period after origination (generally, within 3 months and under no circumstances more than 12 months) and is exposed to only insignificant risk of changes in value.</li> </ul>

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 Zurich Insurance Group's Annual Report 2017, pages 203; 206; 247 to 254. The summary of accounting policies underlying IFRS valuations, as well as significant judgements and assumptions, are included in notes 3 and 4 of the consolidated financial statements in the Zurich Insurance Group's Annual Report 2017, pages 188 to 198

## 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 have been reclassified in order to comply with FINMA requirements.

### Asset valuation MCBS vs IFRS

In USD millions, as of December 31

	2017 (SST)	2016 (SST)	Evolution 2016–2017 (SST)	2017 (IFRS)	Difference 2017 (IFRS – SST)
<b>Market-consistent value of investments</b>					
Real estate	12,238	10,562	1,676	12,238	–
Shareholdings	19	19	0	21	(2)
Fixed income securities	133,139	125,559	7,580	132,495	644
Loans	10,410	10,909	(499)	8,730	1,680
Mortgages	7,501	7,330	170	7,047	453
Equities	8,519	7,194	1,325	8,873	(354)
Other investments.	25,033	24,006	1,026	25,033	–
Collective investment schemes	4,159	3,586	573	4,159	–
Alternative investments	3,440	3,263	177	3,440	–
Other investments	17,434	17,158	277	17,434	–
<b>Total Investments</b>	<b>196,860</b>	<b>185,580</b>	<b>11,280</b>	<b>194,437</b>	<b>2,423</b>
Financial investments from unit-linked life insurance	128,591	108,892	19,699	121,143	7,447
Receivables from derivative financial instruments	903	967	(64)	903	–
<b>Market-consistent value of other assets</b>					
Cash and cash equivalents	8,504	7,129	1,375	8,464	40
Receivables from insurance business	11,237	10,991	247	11,151	86
Other receivables	3,367	4,012	(645)	3,364	2
Other assets	5,245	5,418	(172)	62,479	(57,234)
<b>Total other assets</b>	<b>28,352</b>	<b>27,548</b>	<b>804</b>	<b>85,458</b>	<b>(57,105)</b>
<b>Total market-consistent value of assets</b>	<b>354,706</b>	<b>322,987</b>	<b>31,719</b>	<b>401,942</b>	<b>(47,236)</b>

E. Valuation *continued*

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

In USD millions, as of December 31

	2017 (SST)	2016 (SST)	Evolution 2016–2017 (SST)	2017 (IFRS)	Difference 2017 (IFRS – SST)
<b>Best estimate liabilities (BEL)</b>					
<b>Best estimate of insurance liabilities</b>	<b>(317,983)</b>	<b>(287,178)</b>	<b>(30,805)</b>	<b>(316,440)</b>	<b>(1,544)</b>
Direct insurance: life insurance business (excluding ALV)	(98,832)	(95,337)	(3,494)	(110,402)	11,570
Direct insurance: non-life insurance business	(66,108)	(62,517)	(3,592)	(77,492)	11,384
Direct insurance: health insurance business	–	–	–	–	–
Direct insurance: unit-linked life insurance business	(146,012)	(122,063)	(23,949)	(120,897)	(25,114)
Direct insurance: other business	(457)	(503)	46	(492)	35
Outward reinsurance: life insurance business (excluding ALV)	(2,215)	(2,264)	49	(2,213)	(2)
Outward reinsurance: non-life insurance business	(4,353)	(4,489)	136	(4,937)	584
Outward reinsurance: health insurance business	–	–	–	–	–
Outward reinsurance: unit-linked life insurance business	–	–	–	–	–
Outward reinsurance: other business	(6)	(6)	–	(6)	–
<b>Reinsurers' share of best estimate of insurance liabilities</b>	<b>38,716</b>	<b>32,990</b>	<b>5,726</b>	<b>20,918</b>	<b>17,798</b>
Direct insurance : life insurance business (excluding ALV)	4,998	4,996	2	6,463	(1,465)
Direct insurance: non-life insurance business.	7,102	6,612	490	8,388	(1,287)
Direct insurance: health insurance business	–	–	–	–	–
Direct insurance : unit-linked life insurance business.	21,656	17,102	4,555	–	21,656
Direct insurance: other business.	–	–	–	–	–
Outward reinsurance: life insurance business (excluding ALV).	266	187	79	262	4
Outward reinsurance: non-life insurance business.	4,695	4,094	601	5,805	(1,111)
Outward reinsurance: health insurance business	–	–	–	–	–
Outward reinsurance: unit-linked life insurance business.	–	–	–	–	–
Outward reinsurance: other business.	–	–	–	–	–
<b>Market consistent value of other liabilities</b>					
Non-technical provisions	(4,449)	(5,090)	641	(4,513)	64
Interest-bearing liabilities	(16,920)	(17,357)	437	(10,888)	(6,032)
Liabilities from derivative financial instruments	(214)	(344)	129	(214)	–
Deposits retained on ceded reinsurance	(431)	(488)	58	(512)	81
Liabilities from insurance business	(4,326)	(4,676)	350	(4,293)	(33)
Other liabilities	(15,211)	(13,988)	(1,223)	(53,957)	38,746
<b>Total BEL plus market-consistent value of liabilities</b>	<b>(320,818)</b>	<b>(296,131)</b>	<b>(24,687)</b>	<b>(369,898)</b>	<b>49,080</b>
<b>Market-consistent value of assets minus total BEL plus market-consistent value of liabilities</b>	<b>33,888</b>	<b>26,856</b>	<b>7,032</b>	<b>32,044</b>	<b>1,844</b>

## SST – IFRS valuation difference

Currency: USD/Amounts stated in millions

SST MCBS line item	SST – IFRS Valuation difference	
<b>Total market-consistent value of assets (IFRS)</b>		<b>401,942</b>
Fixed income securities	Bonds HTM held at FV in SST	644
Loans	Loans held at FV in SST	1,680
Mortgage	Mortgage held at FV in SST	453
	The Group under IFRS reclassified assets of USD 29 billion, to held for sale based on agreements to sell businesses in the UK, this reclass is not applicable under SST.	29,103
Financial investments from unit-linked life insurance	UK unit-linked funds reinsurance contracts are presented as reinsurance recoverables under SST.	(21,656)
	Deferred acquisition costs: Value set to zero in SST.	(18,663)
	Deferred origination costs: Value set to zero in SST.	(460)
	Deferred tax assets: Value set to zero in SST.	(1,075)
	Property and equipment: Real estate held for own use is at fair value in SST.	423
Other assets	Other intangible assets: Not to be valued in SST (i.e., value set to zero)	(8,140)
	The Group under IFRS reclassified assets of USD 29 billion, to held for sale based on agreements to sell businesses in the UK, this reclass is not applicable under SST.	(29,103)
Other valuation differences		(441)
<b>Total market-consistent value of assets (SST)</b>		<b>354,706</b>

SST MCBS line item	SST – IFRS Valuation difference	
<b>Total BEL plus market-consistent value of other liabilities (IFRS)</b>		<b>(369,898)</b>
Life insurance liabilities	The SST MCBS value of best estimate life insurance liabilities is determined through a bottom-up projection of the present value of the corresponding cash flows on the same best estimate, risk-neutral unadjusted swaps basis as for Market Consistent Embedded Value (MCEV) with 0 liquidity premium. Please refer to section E.2.3 for more details on valuation differences.	14,092
Non-Life insurance liabilities	The SST MCBS value of non-life insurance liabilities is comprised of best estimate reserve for losses and unearned premium reserve (UPR). Best estimate reserve for losses are discounted using risk-free rates whereby the timing of estimated future cash flows is adequately considered. The MCBS value of UPR reflects the discounted costs of insurance, i.e., expected future loss reserves (incl. loss adjustment expenses (LAE)) and administration expenses, that can arise from the unexpired risk. Please refer to section E.2.3 for more details on valuation differences.	9,570
Direct insurance: unit-linked life insurance business	The Group under IFRS reclassified liabilities of USD 29 billion, to held for sale based on agreements to sell businesses in the UK, this reclass is not applicable under SST.	(29,103)
Reinsurers' share of best estimate of insurance liabilities	UK unit-linked funds reinsurance contracts are presented as reinsurance recoverables under SST.	21,656
Interest bearing liabilities	Market-consistent valuation based on risk-free rate, whereby the future cash flows shall be considered over the remaining earliest contractual redemption date. In case a quoted market price is available and used, then the market price has to be adjusted to eliminate own credit spread.	(6,032)
	Deferred front-end fees: Not to be valued in SST (i.e., value set to zero)	5,429
	The Group under IFRS reclassified liabilities of USD 29 billion, to held for sale based on agreements to sell businesses in the UK, this reclass is not applicable under SST.	29,103
Other Liabilities:	This is the difference between Deferred tax liabilities (IFRS) which is not valued in SST (i.e., value set to zero) and Deferred tax on Swiss real estate transfers attributable to shareholders reported under SST.	3,859
Other valuation differences		505
<b>Total BEL plus market-consistent value of other liabilities (SST)</b>		<b>(320,819)</b>

## E. Valuation *continued*

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### E.2.1 Market-consistent value of investments

#### **Valuation**

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 not measured at fair value. The MCBS value of investments always reflects fair value determined in accordance with the overarching valuation principles outlined in section E.1.

#### **Evolution since 2016**

The market value of Total investments increased by USD 11.3 billion from USD 185.6 billion as of 2016 to USD 196.9 billion as of 2017.

The increase includes a USD 7.5 billion increase in Fixed income securities from USD 125.6 billion in 2016 to USD 133.1 billion in 2017, mainly due to favorable currency translation effects as the EUR and GBP strengthened against the U.S. dollar, as well as due to purchases of corporate debt securities in Switzerland. These increases were partially offset by changes in ZIG's portfolio, following a shift in the strategic asset allocation from Debt securities to equities and real estate investments. The main decreases during 2017 were in Germany, where the value of Debt securities was negatively impacted by increases in interest rates, and in Bermuda due to net sales of Debt securities to fund dividend payments to Corporate Center. Additionally, Farmers New World Life entered into a USD 2.3 billion retrospective annuity reinsurance agreement with a third party. As part of the agreement, liabilities on annuity in-force policies of USD 2.2 billion were transferred along with the corresponding invested assets.

Real Estate increased by USD 1.6 billion from USD 10.6 billion in 2016 to USD 12.2 billion in 2017, mainly driven by a shift in the strategic asset allocation toward real estate, with acquisitions in Europe and the US. In addition, increases in market values across many regions, as well as the strengthening of the EUR and CHF against the U.S. dollar, contributed favorably.

Equities increased by USD 1.3 billion from USD 7.2 billion in 2016 to USD 8.5 billion in 2017. The increase is mainly due to a shift in the strategic asset allocation toward equities, improved market conditions and favorable currency translation effects from EUR dominated investments.

Other Investments increased by USD 1.0 billion from USD 24.0 billion in 2016 to USD 25.0 billion in 2017. Collective investment schemes increased by USD 0.6 billion, reflecting new investments in US money market funds. Other Capital Investments increased by USD 0.3 billion mainly in Bermuda.

These increases were partially offset by a decrease in Loans by USD 0.5 billion from USD 10.9 billion in 2016 to USD 10.4 billion in 2017, following a surplus note principal pay down of USD 0.6 billion by Farmers and matured loans in ZIC of USD 1.0 billion, partially offset by new loans in ZIC of USD 300 million and favorable currency movements.

Financial investments from unit-linked life insurance increased by USD 19.7 billion from USD 108.9 billion in 2016 to USD 128.6 billion in 2017, reflecting favorable foreign currency translation effects, new business and market growth in Ireland, UK, Brazil Santander and Germany.

### E.2.2 Market-consistent value of other assets

#### **Valuation**

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 subject to only insignificant risk of changes in value and settlement is expected to occur generally within three months and no more than 12 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.

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.



**Evolution since 2016**

The market-consistent value of Total other assets increased by USD 0.8 billion from USD 27.6 billion in 2016 to USD 28.4 billion in 2017.

Cash and cash equivalents increased by 1.4 billion from USD 7.1 billion in 2016 to USD 8.5 billion in 2017 mainly due to higher levels of operational cash resulting from changes in the timing of settlements.

These increases were partially offset by a decrease in Other receivables of USD 0.6 billion from USD 4.0 billion in 2016 to USD 3.4 billion in 2017, mainly due to matured repo contract agreements in Spain.

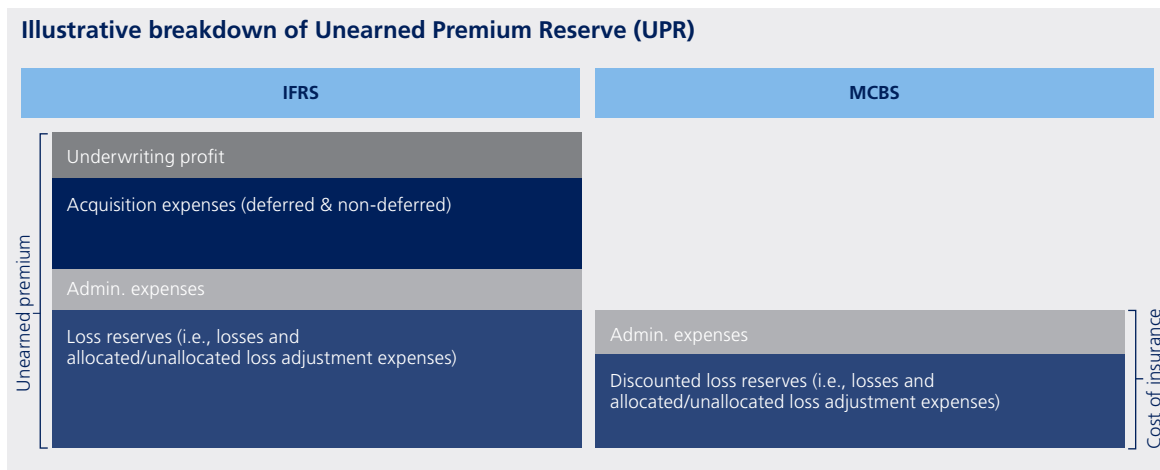
**E.2.3 Best estimate of insurance liabilities**

**Valuation**

**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 in respect for contracts in force. To arrive at the MCBS value for UPR, the following adjustments are made:

- Expected future losses (incl. loss adjustment expenses (LAE)) are discounted;
- Underwriting profits are not taken into consideration, 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 acquisition related costs (such as commissions, sales and distribution management, underwriting, risk engineering, and marketing costs) are excluded. Similarly, amortization of DAC and intangible assets is not included because DAC and intangible assets are set to zero in MCBS



**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 case 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*

### Best estimate of life investment & 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 & insurance liabilities, as do taxes paid on behalf of policyholders, maintenance expenses and future commissions. On the other hand, projected future premiums, fees and charges projected to be received from policyholders for existing business reduce the best estimate of life investment & 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 on management's behavior for, e.g., management discretion to distribute profits or to change asset allocation, is used. In case of management actions, as considered in the scenario modelling would be subject to regulatory approval (e.g., potential cancellation of policyholder dividends), the assumption used when interpreting local supervisory guidance is verified by the local regulator or external audit.

### Reinsurer's share of best estimate of liabilities

For SST MCBS the calculation of the best estimate for reinsurance assets and insurance liabilities is performed on a gross basis (i.e., no offsetting of assets with liabilities). As expected, credit risk is not directly included in the actuarial discounted best estimate of future cash flows; for MCBS purposes a credit valuation allowance.

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.

### Ceded 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, future cash flows are discounted while the timing of these future cash flows.

Illustrative breakdown of ceded UPR	
IFRS	MCBS
Ceded profit	
Reinsurance commission received	
Future claims recoveries	Discounted future claims recoveries

#### Ceded reserves on life ceded benefits

In order to determine the SST MCBS value of best estimate ceded reserves for 3rd party as well as intercompany reinsurance of life insurance and investment contracts, generally, the following applies:

- The best estimate of future cash flows is based on the principles discussed in the best estimate of life investment & Insurance Liabilities
- 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
- If the reinsurer's credit risk is not included in the best estimate future cash flows, the expected credit loss allowance is considered.

#### Evolution since 2016

The market value of Best estimate of insurance liabilities increased by USD 30.8 billion from USD 287.5 billion in Q4 2016 to USD 318.0 billion in Q4 2017.

The market value of the total of Direct insurance: unit-linked life insurance business and outward reinsurance: unit-linked life insurance business increased by USD 2.3.9 billion from USD 122.1 billion in 2016 to USD 146.0 billion in 2017, reflecting unfavorable foreign currency translation effects from the U.S. dollar weakening against a number of currencies, particularly the EUR and GBP, and new business and market growth in Ireland, UK, Brazil and Germany.

The market value of the total of Direct insurance: life insurance business (excluding ALV) and Outward reinsurance: life insurance business (excluding ALV) have increased by USD 3.4 billion from USD 97.6 billion in 2016 to USD 101.0 billion in 2017 mainly also due to unfavorable currency translation effects which have been partially offset by changes in interest rates in the UK, Germany and Switzerland. In addition to this, a portfolio revaluation and expense reductions in Australia and a reinsurance agreement between Spain and a third-party reinsurer resulted in a reduction of USD 0.6 billion.

The market value of the total of Direct insurance: non-life insurance business and Outward reinsurance: non-life insurance business increased by USD 3.2 billion from USD 67.3 billion in 2016 to USD 70.5 billion in 2017, reflecting unfavorable currency translation effects, and the impact of Hurricanes Harvey, Irma and Maria, and adverse claims experience in Financial Lines, Motor, Engineering Lines and Liability businesses in France. These adverse developments were partially offset by improved loss experience in Italy and Switzerland motor businesses and US Crop business.

Reinsurers' share of best estimate for insurance liabilities increased by USD 5.7 billion from USD 33.0 billion in 2016 to USD 38.7 billion in 2017.

Direct insurance: unit-linked life insurance business and Outward reinsurance: unit-linked life insurance business increased by USD 4.6 billion from USD 17.1 billion in 2016 to USD 21.7 billion in 2017 mainly due to Unit linked fund reinsurance where there have been large increases in bonds and equities, as well as new business in the UK coupled with favorable currency translation effects.

Outward reinsurance: non-life insurance business increased by USD 0.6 billion from USD 4.1 billion in 2016 to USD 4.7 billion in 2017, reflecting unfavorable development in Financial Lines in the UK and France, Liability business in Spain, and recoveries of U.S. hurricane losses

Direct insurance: non-life insurance business increased by USD 0.5 billion from USD 6.6 billion in 2016 to USD 7.1 billion in 2017 as a result of favorable currency translation effects, and increases related to Zurich North America's Property, Motor and Workers' Compensation business, partially offset by a reduction in ceded Crop insurance, whereby Zurich North America now retains a larger share of the business.

## E. Valuation *continued*

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### E.2.4 Market-consistent value of other liabilities

#### **Valuation**

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

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

Interest-bearing liabilities exclude subordinated debt instruments eligible as supplementary capital<sup>1</sup> under SST. Such interest-bearing liabilities are subject to a market-consistent valuation based on risk-free rates whereby 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.

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

Liabilities from the insurance business are valued at IFRS carrying value because 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 3 months and never more than 12 months).

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

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

#### **Evolution since 2016**

The market-consistent value of other liabilities decreased by USD 0.4 billion from USD 42.0 billion in 2016 to USD 41.6 billion in 2017.

The non-technical provisions decreased by USD 0.6 billion from USD 5.1 billion in 2016 to USD 4.5 billion in 2017, reflecting amendments to assumptions and curtailments in the Swiss and US pension plans. In Switzerland, plan amendments, coupled with favorable plan asset returns resulted in the Swiss plan being in a net funded status as of December 31, 2017 and as such the balance is reclassified to "All other assets" (USD 0.2 billion). Curtailments to the ZNA pension plan reduced the net pension obligation by USD 81million.

Interest-bearing liabilities decreased by USD 3.2 billion from USD 17.4 billion in 2016 to USD 17.0 billion in Q4 2017.

Liabilities from insurance business decreased by USD 0.4 billion from USD 4.7 billion in 2016 to USD 4.3 billion in 2017.

Other liabilities increased by USD 1.2 billion from USD 14.0 billion in Q4 2016 to USD 15.2 billion in Q4 2017 due to currency translation effects, increases in Current Income Tax Payable of USD 0.3 billion, and Accrued premiums of USD 0.2 billion.

### 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.

<sup>1</sup> 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.

#### 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 Zurich Economic Capital Model.

#### Zurich risk-free yield curve methodology for January 1, 2018 SST and Zurich Economic Capital Model

Currency	Entry point to extrapolation (years)	Market data	Method of interpolation	Method of extrapolation	Ultimate forward rate	Smith Wilson
					(annually compounded)	alpha
EUR	50	Raw market	Smith Wilson giving smooth		1.51% (50-year market spot rate)	0.2
USD	50	mid-swap	forward and spot curves passing		2.49% (50-year market spot rate)	0.2
GBP	50	rates from	exactly through market data		1.27% (50-year market spot rate)	0.2
CHF	30	Bloomberg			0.76% (30-year market spot rate)	0.2

## F. Capital management

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With regard to the enterprise risk management, the principles of Zurich Insurance Group's capital management are equally applicable to the Zurich Insurance Company Ltd and its consolidated subsidiaries (collectively the 'ZIC Group'). This section should therefore be read in conjunction with Zurich Insurance Group's Financial Condition Report, section F. 'Capital management', pages 68 to 73.

### F.1 Capital management objectives

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 shareholders' equity under IFRS to balance maximization of shareholder value and constraints from its economic framework, rating agencies and regulators. As of December 31, 2017, shareholders' equity of USD 33.1 billion, subordinated debts of USD 6.9 billion and senior financial debts not maturing within the next year of USD 2.9 billion were part of the capital available in the Group's economic framework. Further adjustments usually include such items as intangible assets and liabilities, or allowing for discounting of liabilities and the value of in-force business.

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

### F.2 Capital management framework

The Zurich Insurance Group's capital management framework forms the basis for actively managing capital within Zurich. The Zurich Insurance Group uses a number of different capital models, taking into account economic, regulatory, and rating agency constraints. The Zurich Insurance Group's capital and solvency position is monitored and regularly reported.

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

### F.3 Capital management program

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

The Zurich Insurance 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 issuance and redemption of debt have significant influence on capital levels. In 2017, Zurich Insurance Group paid a dividend out of the capital contribution reserve, and redeemed senior debt, and called hybrid debts that had been pre-financed during 2016.

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 faces no legal restrictions on dividends it may pay its shareholders. As of December 31, 2017, the general legal reserve exceeded 20 times the paid-in share capital. The ability of the ZIC 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 where the subsidiaries operate. Other limitations or considerations include foreign exchange control restrictions in some countries, and rating agencies' methodologies.

See section E. 'Valuation' for more information about the impact of capital management actions on the market-consistent value of other liabilities including interest-bearing liabilities similar to debt capital.

## F.4 Insurance financial strength rating

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

The Zurich Insurance Group maintained its strong rating level in 2017. On Dec 8, 2017 AM Best modified the rating outlook from negative to stable while reaffirming the A+ (Superior) Financial Strength rating (FSR) and aa- Issuer Credit Rating (ICR) of the Group and of its subsidiaries rated by AM Best. With this, AM Best recognized "the positive impact of the strong corrective actions management has taken on the Group's Property & Casualty (P&C) operations". This change is also based on the recognition of the Group's diversified sources of earnings in terms of businesses and geographies, as well as the strength of the balance sheet. Standard & Poor's sees Zurich's ERM 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, 2017, the IFSR of Zurich Insurance Company (ZIC) was 'AA-/Stable' by Standard and Poor's, 'Aa3/Stable' by Moody's and 'A+(Superior)/Stable' by A.M. Best.

## F.5 Regulatory capital adequacy

The Zurich Insurance 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 Zurich Insurance 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 Zurich Insurance Group aims to hold an adequate buffer to ensure regulated subsidiaries meet local capital requirements.

Under the Swiss Solvency Test (SST), insurance companies and insurance groups can apply for the use of 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 Authority (FINMA). ZIC filed with FINMA an SST ratio of 212% as of January 1, 2018.

Given its international range, Zurich chose an internal model to adequately reflect its global business and risk profile. The FINMA models do not capture the Non-Life and Life business in one model and are therefore not adequate for an international insurance group like Zurich. Zurich's internal model in contrast captures the Non-Life and Life business within a consistent framework. Insurance risk is the primary risk taken by Zurich. In line with the principle of pooling risks, Zurich aims for a wide level of diversification of its risks in terms of both geographies and underlying sources of risk. With the SST internal model, Zurich can appropriately capture the resulting diversification effects as well as the risk concentrations within its multinational portfolio. Zurich's internal model is fully embedded within its risk and capital management framework and within the decision-making processes of the Group and local units and provides the right risk incentives as it is tailored to the actual risks taken by Zurich.

In 2017, Zurich enhanced its internal model and submitted it to FINMA for approval. Enhancements include changes that were necessary to meet evolving FINMA requirements.

See next section G. 'Solvency' for more information on the SST framework.

## 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 – described as risk-bearing capital or RBC
- An economic view of the impact of the potential risks inherent in the regulated business – described 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 by calculating 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.

Zurich Insurance Company Ltd 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.

With the revision of the ISO per July 2015 and the publication of the 'Wegleitung zum Genehmigungsprozess eines internen Modells' on February 26, 2016, FINMA requested a re-launch of the internal model approval processes for the Swiss insurance industry. In 2017, Zurich Insurance Company Ltd enhanced its internal model and submitted it to FINMA for approval. Enhancements include changes that were necessary to meet evolving FINMA requirements.

The risk margin (market value margin under SST) methodology follows the cost of capital approach, in accordance with the FINMA Circular 2017/3. The market value margin reflects 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. Given the long-term nature of the insurance liabilities (e.g. annuities) these future capital requirements are discounted consistently with the MCBS liabilities. The cost of capital rate is set to 6%.

The model changes lead to a reduction of the ZIC SST ratio, it stood at 194%<sup>1,2</sup> as of January 1, 2017. This was a 26<sup>1</sup> percentage point decrease compared to the SST ratio of 220%<sup>1</sup> filed with FINMA as of January 1, 2017 (before model change).

The ZIC SST ratio has increased driven mainly by favorable economic and business changes, partially offset by a higher dividend base.

### Solvency

in USD millions, for the years ended December 31

	2016 <sup>2</sup>	Adjustments Previous year	2017
<b>Derivation of risk-bearing capital</b>			
Market-consistent value of assets minus total from best estimate liabilities plus			
market-consistent value of other liabilities	26,856		33,888
Deductions	(2,264)		(2,770)
<b>Core capital</b>	<b>24,592</b>		<b>31,117</b>
Supplementary capital	11,759		12,063
<b>Risk-bearing capital</b>	<b>36,351</b>		<b>43,181</b>
<b>Derivation of target capital</b>			
Underwriting risk	10,073		10,582
Market risk	10,792		10,592
Diversification effects	(3,739)		(3,801)
Credit risk	3,890		3,987
Risk margin and other effects on target capital	1,084		3,213
<b>Target capital</b>	<b>22,100</b>		<b>24,573</b>
<b>SST ratio</b>	<b>194%</b>		<b>212%</b>

<sup>1</sup> This number was revised on May 15, 2018 to correct a typographical error.

<sup>2</sup> The restated SST calculation and SST ratio as of January 1, 2017 (after model change) were not subject to regulatory review by FINMA. This footnote has been included on July 25, 2018 for the purpose of further clarification.



Whereas ZIC analyzes the SST target capital mainly based on a look-through approach, the SST model allows the identification of the main sources of contribution to the target capital. The table below shows the contribution of the direct property & casualty business written in Switzerland and its branches as well as the assumed reinsurance business from its subsidiaries, the Farmers Exchanges and the contribution of the subsidiaries to the target capital.

**SST target capital,  
split by source of risk  
contribution and risk  
type**

	In USD millions, as of December 31, 2016	From ZIC Ltd		<b>Total</b>
		(solo)	From subsidiaries	
Underwriting risk		3,585	4,263	7,848
Market risk		2,349	7,987	10,335
Credit risk		77	254	330
Risk margin and other effects on target capital		2,110	1,476	3,586
<b>Total target capital</b>		<b>8,121</b>	<b>13,979</b>	<b>22,100</b>
<b>Contribution to total</b>		<b>37%</b>	<b>63%</b>	<b>100%</b>

**SST target capital,  
split by source of risk  
contribution and risk  
type**

	In USD millions, as of December 31, 2017	From ZIC Ltd		<b>Total</b>
		(solo)	From subsidiaries	
Underwriting risk		2,705	5,446	8,151
Market risk		2,153	8,530	10,683
Credit risk		105	244	349
Risk margin and other effects on target capital		3,103	2,287	5,390
<b>Total target capital</b>		<b>8,067</b>	<b>16,506</b>	<b>24,573</b>
<b>Contribution to total</b>		<b>33%</b>	<b>67%</b>	<b>100%</b>

## Appendix 1: Quantitative templates

### Income Statement Zurich Insurance Company Ltd Total and Direct Swiss Business

In CHF millions, for the years ended December 31

	Total		Accident	
	2016	2017	2016	2017
1 Gross written premiums and policy fees	18,964	18,748	353	343
2 Premiums ceded to reinsurers	(2,928)	(3,181)	(6)	(6)
3 Net written premiums and policy fees (1 + 2)	16,036	15,568	347	337
4 Change in reserves for unearned premiums, gross	161	536	3	(2)
5 Change in reserves for unearned premiums, ceded	37	66	–	–
6 Net earned premiums and policy fees (3 + 4 + 5)	16,233	16,170	349	335
7 Other income <sup>1</sup>	1,410	1,258	26	23
<b>8 Total technical income (6+7)</b>	<b>17,643</b>	<b>17,427</b>	<b>376</b>	<b>358</b>
9 Claims paid, annuities and loss adjustment expenses, gross	(12,668)	(12,440)	(315)	(296)
10 Claims paid, annuities and loss adjustment expenses, ceded	1,538	1,629	6	4
11 Change in insurance reserves, gross	107	(1,407)	(43)	6
12 Change in insurance reserves, ceded	(234)	612	2	1
13 Change in actuarial provisions for unit-linked contracts				
<b>Insurance benefits and losses, net of reinsurance</b>				
<b>14 (9 + 10 + 11 + 12 + 13)</b>	<b>(11,257)</b>	<b>(11,606)</b>	<b>(350)</b>	<b>(285)</b>
15 Underwriting & policy acquisition costs, gross	(4,611)	(4,716)	(39)	(33)
16 Underwriting & policy acquisition costs, ceded	415	436	–	–
17 Underwriting & policy acquisition costs, net of reinsurance (15 + 16)	(4,197)	(4,280)	(39)	(33)
18 Administrative and other expense <sup>1</sup>	(2,520)	(2,640)	(47)	(48)
<b>Total technical expense</b>				
<b>19 (14 + 17 + 18) (non-life insurance only)</b>	<b>(17,973)</b>	<b>(18,526)</b>	<b>(435)</b>	<b>(366)</b>
20 Investment income	4,658	4,176		
21 Investment expenses	(623)	(951)		
<b>22 Net investment result (20 + 21)</b>	<b>4,035</b>	<b>3,225</b>		
23 Net investment result on unit-linked investments	–	–		
24 Other financial income	628	274		
25 Other financial expense	(349)	(382)		
<b>26 Operating result (8 + 14 + 17 + 18 + 22 + 23 + 24 + 25)</b>	<b>3,983</b>	<b>2,018</b>		
27 Interest expense on debt and other interest expense	(724)	(544)		
28 Other income	–	–		
29 Other expense	–	–		
30 Extraordinary income/expense	–	–		
<b>31 Net income before taxes (26 + 27 + 28 + 29 + 30)</b>	<b>3,259</b>	<b>1,474</b>		
32 Direct tax expenses	(124)	(130)		
<b>33 Net income after taxes (31 + 32)</b>	<b>3,135</b>	<b>1,344</b>		

<sup>1</sup> Line item 7 and 18: LoB allocated according to GWP.

## Direct Swiss business

Illness		Motor vehicle		Transport		Fire, natural hazards, property damage		General third-party liability		Other branches	
2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
285	282	1,108	1,068	28	26	352	339	302	305	103	97
-	-	(3)	(3)	(4)	(4)	(21)	(12)	(19)	(23)	(11)	(11)
285	282	1,105	1,065	24	22	331	328	283	282	92	86
(2)	(1)	1	4	-	-	-	2	(4)	1	(13)	4
-	-	(1)	-	-	-	5	(4)	3	2	(1)	(2)
282	281	1,106	1,069	24	22	336	325	282	285	78	88
21	19	82	72	2	2	26	23	22	20	8	7
<b>304</b>	<b>300</b>	<b>1,188</b>	<b>1,140</b>	<b>26</b>	<b>24</b>	<b>363</b>	<b>348</b>	<b>304</b>	<b>306</b>	<b>86</b>	<b>94</b>
(251)	(243)	(652)	(643)	(11)	(10)	(178)	(190)	(164)	(164)	(55)	(59)
-	-	2	1	1	-	(1)	-	1	1	2	1
11	9	150	79	2	(4)	37	(47)	50	(3)	11	(2)
-	2	(2)	1	(4)	1	(5)	7	(1)	1	(1)	3
<b>(240)</b>	<b>(231)</b>	<b>(502)</b>	<b>(562)</b>	<b>(11)</b>	<b>(12)</b>	<b>(147)</b>	<b>(230)</b>	<b>(114)</b>	<b>(165)</b>	<b>(42)</b>	<b>(57)</b>
(27)	(23)	(189)	(171)	(4)	(4)	(83)	(83)	(55)	(56)	(25)	(23)
-	-	1	1	1	1	2	2	2	2	2	1
(27)	(23)	(188)	(170)	(4)	(3)	(82)	(81)	(53)	(55)	(23)	(22)
(38)	(40)	(147)	(150)	(4)	(4)	(47)	(48)	(40)	(43)	(14)	(14)
<b>(305)</b>	<b>(294)</b>	<b>(838)</b>	<b>(882)</b>	<b>(18)</b>	<b>(19)</b>	<b>(275)</b>	<b>(360)</b>	<b>(207)</b>	<b>(263)</b>	<b>(79)</b>	<b>(93)</b>

## Appendix 1: Quantitative templates *continued*

### Income Statement Zurich Insurance Company Ltd Direct Foreign Business and Assumed Business

In CHF millions, for the years ended December 31

	Direct non-Swiss business, total	
	2016	2017
1 Gross written premiums and policy fees	1,698	1,615
2 Premiums ceded to reinsurers	(836)	(834)
3 Net written premiums and policy fees (1 + 2)	862	781
4 Change in reserves for unearned premiums, gross	47	55
5 Change in reserves for unearned premiums, ceded	63	18
6 Net earned premiums and policy fees (3 + 4 + 5)	971	853
7 Other income <sup>1</sup>	126	108
<b>8 Total technical income (6+7)</b>	<b>1,097</b>	<b>962</b>
9 Claims paid, annuities and loss adjustment expenses, gross	(1,148)	(1,000)
10 Claims paid, annuities and loss adjustment expenses, ceded	319	290
11 Change in insurance reserves, gross	144	123
12 Change in insurance reserves, ceded	38	66
13 Change in actuarial provisions for unit-linked contracts		
<b>Insurance benefits and losses, net of reinsurance</b>		
<b>14 (9 + 10 + 11 + 12 + 13)</b>	<b>(646)</b>	<b>(520)</b>
15 Underwriting & policy acquisition costs, gross	(458)	(432)
16 Underwriting & policy acquisition costs, ceded	279	301
17 Underwriting & policy acquisition costs, net of reinsurance (15 + 16)	(180)	(130)
18 Administrative and other expense <sup>1</sup>	(226)	(227)
<b>Total technical expense</b>		
<b>19 (14 + 17 + 18) (non-life insurance only)</b>	<b>(1,051)</b>	<b>(878)</b>
20 Investment income		
21 Investment expenses		
<b>22 Net investment result (20 + 21)</b>		
23 Net investment result on unit-linked investments		
24 Other financial income		
25 Other financial expense		
<b>26 Operating result (8 + 14 + 17 + 18 + 22 + 23 + 24 + 25)</b>		
27 Interest expense on debt and other interest expense		
28 Other income		
29 Other expense		
30 Extraordinary income/expense		
<b>31 Net income before taxes (26 + 27 + 28 + 29 + 30)</b>		
32 Direct tax expenses		
<b>33 Net income after taxes (31 + 32)</b>		

## Indirect business

Personal accident		Health		Motor		Marine, aviation, transport		Property		Casualty		Miscellaneous	
2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
1,298	1,273	247	213	2,890	2,573	494	503	4,693	4,707	3,003	2,943	2,112	2,461
(3)	(4)	–	(1)	(45)	(42)	(79)	(91)	(1,313)	(1,465)	(338)	(315)	(248)	(371)
1,295	1,269	247	213	2,844	2,532	414	412	3,379	3,242	2,664	2,628	1,864	2,090
3	(12)	(1)	16	(5)	265	18	(7)	70	326	56	(37)	(14)	(75)
–	–	–	–	1	–	(4)	3	(54)	2	2	2	24	46
1,298	1,256	246	229	2,841	2,796	428	409	3,396	3,570	2,721	2,592	1,874	2,060
97	85	18	14	215	173	37	34	349	316	223	197	157	165
<b>1,395</b>	<b>1,341</b>	<b>264</b>	<b>243</b>	<b>3,056</b>	<b>2,969</b>	<b>465</b>	<b>442</b>	<b>3,745</b>	<b>3,886</b>	<b>2,945</b>	<b>2,790</b>	<b>2,031</b>	<b>2,225</b>
(659)	(657)	(273)	(285)	(2,173)	(2,125)	(300)	(356)	(2,993)	(2,871)	(2,130)	(2,237)	(1,367)	(1,306)
1	1	–	–	26	27	71	93	710	634	225	190	174	387
(374)	(30)	92	266	(28)	(34)	18	(3)	676	(625)	(393)	(590)	(249)	(552)
–	–	–	–	–	3	(40)	(28)	(141)	503	(86)	40	6	11
<b>(1,031)</b>	<b>(686)</b>	<b>(180)</b>	<b>(19)</b>	<b>(2,176)</b>	<b>(2,130)</b>	<b>(250)</b>	<b>(293)</b>	<b>(1,749)</b>	<b>(2,359)</b>	<b>(2,384)</b>	<b>(2,596)</b>	<b>(1,436)</b>	<b>(1,459)</b>
(372)	(392)	(83)	(47)	(917)	(861)	(121)	(129)	(1,025)	(1,175)	(791)	(787)	(422)	(500)
4	–	–	1	3	3	4	7	80	82	15	12	23	25
(368)	(392)	(83)	(47)	(914)	(859)	(118)	(122)	(945)	(1,093)	(776)	(775)	(398)	(475)
(173)	(179)	(33)	(30)	(384)	(362)	(66)	(71)	(624)	(663)	(399)	(414)	(281)	(347)
<b>(1,572)</b>	<b>(1,257)</b>	<b>(296)</b>	<b>(96)</b>	<b>(3,474)</b>	<b>(3,351)</b>	<b>(433)</b>	<b>(486)</b>	<b>(3,317)</b>	<b>(4,115)</b>	<b>(3,559)</b>	<b>(3,786)</b>	<b>(2,115)</b>	<b>(2,281)</b>

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

in USD millions, for the years ended December 31

	2016	Adjustments previous period	2017
<b>Market-consistent value of investments</b>			
Real estate	10,562		12,238
Shareholdings	19		19
Fixed income securities	125,559		133,139
Loans	10,909		10,410
Mortgages	7,330		7,501
Equities	7,194		8,519
Other investments	24,006		25,033
Collective investment schemes	3,586		4,159
Alternative investments	3,263		3,440
Other investments	17,158		17,434
<b>Total Investments</b>	<b>185,580</b>		<b>196,860</b>
Financial investments from unit-linked life insurance	108,892		128,591
Receivables from derivative financial instruments	967		903
<b>Market-consistent value of other assets</b>			
Cash and cash equivalents	7,129		8,504
Receivables from insurance business	10,991		11,237
Other receivables	4,012		3,367
Other assets	5,418		5,245
<b>Total other assets</b>	<b>27,548</b>		<b>28,352</b>
<b>Total market-consistent value of assets</b>	<b>322,987</b>		<b>354,706</b>
<b>Best estimate liabilities (BEL)</b>			
<b>Best estimate of insurance liabilities</b>	<b>(287,178)</b>		<b>(317,983)</b>
Direct insurance: life insurance business (excluding ALV)	(95,337)		(98,832)
Direct insurance: non-life insurance business	(62,517)		(66,108)
Direct insurance: health insurance business			
Direct insurance: unit-linked life insurance business	(122,063)		(146,012)
Direct insurance: other business	(503)		(457)
Outward reinsurance: life insurance business (excluding ALV)	(2,264)		(2,215)
Outward reinsurance: non-life insurance business	(4,489)		(4,353)
Outward reinsurance: health insurance business			
Outward reinsurance: unit-linked life insurance business	–		–
Outward reinsurance: other business	(6)		(6)
<b>Reinsurers' share of best estimate of insurance liabilities</b>	<b>32,990</b>		<b>38,716</b>
Direct insurance : life insurance business (excluding ALV)	4,996		4,998
Direct insurance: non-life insurance business	6,612		7,102
Direct insurance: health insurance business			
Direct insurance : unit-linked life insurance business	17,102		21,656
Direct insurance: other business	–		–
Outward reinsurance: life insurance business (excluding ALV)	187		266
Outward reinsurance: non-life insurance business	4,094		4,695
Outward reinsurance: health insurance business			
Outward reinsurance: unit-linked life insurance business	–		–
Outward reinsurance: other business	–		–
<b>Market consistent value of other liabilities</b>			
Non-technical provisions	(5,090)		(4,449)
Interest-bearing liabilities	(17,357)		(16,920)
Liabilities from derivative financial instruments	(344)		(214)
Deposits retained on ceded reinsurance	(488)		(431)
Liabilities from insurance business	(4,676)		(4,326)
Other liabilities	(13,988)		(15,211)
<b>Total BEL plus market-consistent value of liabilities</b>	<b>(296,131)</b>		<b>(320,818)</b>
<b>Market-consistent value of assets minus total BEL plus market-consistent value of liabilities</b>	<b>26,856</b>		<b>33,888</b>

## Solvency

in USD millions, for the years ended December 31

	2016 <sup>1</sup>	Adjustments Previous year	2017
<b>Derivation of risk-bearing capital</b>			
Market-consistent value of assets minus total from best estimate liabilities plus market-consistent value of other liabilities	26,856		33,888
Deductions	(2,264)		(2,770)
<b>Core capital</b>	<b>24,592</b>		<b>31,117</b>
Supplementary capital	11,759		12,063
<b>Risk-bearing capital</b>	<b>36,351</b>		<b>43,181</b>
<b>Derivation of target capital</b>			
Underwriting risk	10,073		10,582
Market risk	10,792		10,592
Diversification effects	(3,739)		(3,801)
Credit risk	3,890		3,987
Risk margin and other effects on target capital	1,084		3,213
<b>Target capital</b>	<b>22,100</b>		<b>24,573</b>
<b>SST ratio</b>	<b>194%</b>		<b>212%</b>

<sup>1</sup> The restated SST calculation and SST ratio as of January 1, 2017 (after model change) were not subject to regulatory review by FINMA. This footnote has been included on July 25, 2018 for the purpose of further clarification.

## Appendix 2: Report of the statutory auditor on the ZIC Group Annual Report

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The Financial Condition Report is not audited.

The consolidated financial statements of Zurich Insurance Company 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, 2017 (Zurich Insurance Company Group Annual Report 2017, pages 148 to 173: <https://www.zurich.com/en/investor-relations/results-and-reports/other-statutory-filings>).



## 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.

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