

# Zurich Insurance Company Group



Zurich Insurance Group is a leading multi-line insurer that serves its customers in global and local markets. With about 54,000 employees, it provides a wide range of property and casualty, and life insurance products and services in more than 210 countries and territories. Zurich's customers include individuals, small businesses, and mid-sized and large companies, as well as multinational corporations. The Group is headquartered in Zurich, Switzerland.

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## Risk review

The risk review is an integral part of the consolidated financial statements. Risk and capital are managed at the Zurich Insurance Group, segment, region and business unit level according to our risk and capital management framework. The principles of the Zurich Insurance Group's enterprise risk management described in the 'risk and capital management section' 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 figures presented are prepared on a ZIC Group basis.

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## Risk and capital management

## Objectives of risk management

Taking risk is inherent to the insurance business, but such risk-taking needs to be made in an informed and disciplined manner, and within a pre-determined risk appetite and tolerance.

The major risk management objectives at Zurich Insurance Group are to:

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

## Risk management framework

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

The Zurich Risk Policy is Zurich Insurance Group's main risk governance document; it specifies the Zurich Insurance Group's risk tolerance, risk limits and authorities, reporting requirements, procedures to approve any exceptions and procedures for referring risk issues to senior management and the Board of Directors. Limits are specified per risk type. 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 risk updates. In 2016, reporting was enhanced with in-depth risk insights into historical large losses and risk selection and pricing, and into the potential effects on Zurich Insurance Group of such topical issues as the Brexit vote in the UK, cyber risk, climate risk, and the Zika virus.

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

In 2016, S&P upgraded its rating of Zurich Insurance Group's enterprise risk management (ERM) from 'strong' to 'very strong', reflecting its positive view of Zurich Insurance Group's risk management culture, risk controls, emerging risk management and strategic risk assessment. The 'very strong' ERM assessment is also a result of the 'good' rating of the Zurich Insurance Group economic capital model (Z-ECM).

In 2016, the Zurich Insurance Group extended its risk appetite statement with additional capital, liquidity, earnings volatility and non-financial metrics. The primary metric used to steer business remains the Z-ECM.

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 tolerance. The Zurich Economic Capital Model (Z-ECM) provides a key input into the Group's strategic planning process as an assessment between the Group's risk profile and the 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.

### **Risk-based remuneration**

Based on the Zurich Insurance Group's remuneration rules, the Board of Directors designs and structures remuneration arrangements to ensure they do not encourage inappropriate risk taking. The Zurich Insurance Group Chief Risk Officer (Group CRO) consults with the other assurance, control and governance functions to provide the Zurich Insurance Chief Executive Officer with a review of risk factors to consider in the annual variable-compensation process. In consultation with these functions, the Zurich Insurance Group CRO provides an individual assessment of Zurich Insurance Group key risk takers as part of their annual individual performance assessment. For more information on Zurich Insurance Group's remuneration system, see the 'remuneration report.'

## Risk governance and risk management organization

### **Risk management organization**

The Zurich Insurance Group Chief Risk Officer leads the Group Risk Management function, which provides risk governance mechanisms to assess and manage risks effectively and efficiently with clear accountabilities, roles and responsibilities that enable disciplined risk taking throughout the Zurich Insurance Group. The Zurich Insurance Group Chief Risk Officer is responsible for oversight of risks across the Zurich Insurance Group, regularly reporting risk matters to the Group Chief Executive Officer, executive management committees and the Risk and Investment Committee of the Board.

The Group Risk Management function is a global function. It consists of teams at the Zurich Insurance Group, regional and business unit levels. Staff at Zurich Insurance Group level focus on model risk management; quantitative assessments of insurance, credit and operational risks; risk management frameworks, tools and methodologies; risk reporting; and risk governance. Chief Risk Officers at the business unit level focus on implementing Zurich Insurance Group's risk management framework locally, including early identification of risks with follow-up monitoring and mitigation actions. They report to the regional Heads of Risk, who in turn report to the Zurich Insurance Group's Chief Risk Officer. The CROs for the Group's largest business units report directly to the Zurich Insurance Group Chief Risk Officer.

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

## Objectives of 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 shareholders' equity under IFRS to balance maximization of shareholder value and constraints from its economic framework, rating agencies and regulators. Shareholders' equity of USD 30.7 billion and subordinated liabilities of USD 7.1 billion as of December 31, 2016 are 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.

Zurich Insurance Group strives to simplify its legal entity structure to reduce complexity and increase fungibility of capital. The Zurich Insurance Group pools risk, capital and liquidity centrally as much as possible.

## 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.

## 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 issuances and redemption of debt have a significant influence on capital levels. In 2016, the Zurich Insurance Group paid a dividend out of the capital contribution reserve, and refinanced part of maturing senior debt and callable hybrid debt with new hybrid debt.

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 Company Ltd faces no legal restrictions on dividends it may pay to its shareholders. As of December 31, 2016, the amount of 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 in which the subsidiaries operate. Other limitations or considerations include foreign exchange control restrictions in some countries, and rating agencies' methodologies.

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

## 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 (ZIC), the Zurich Insurance Group's main operating entity is an important element of Zurich Insurance Group's competitive position. The 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 2016. As of December 31, 2016, the IFSR of Zurich Insurance Company Ltd, the main operating entity of the Zurich Insurance Group, was 'AA-' by Standard and Poor's, 'Aa3/stable' by Moody's, and 'A+/negative' by A.M. Best.

All three agencies left their outlook unchanged in 2016.

## 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 ZIC 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. Besides 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. The Zurich Insurance Group is subject to different capital requirements depending on the countries in which it operates.

Zurich Insurance Group pools risk and capital as much as possible at a Zurich Insurance Group level, realizing diversification benefits for the Zurich Insurance Group. This also allows the Zurich Insurance Group to take into account the benefits that arise in regions where these benefits are recognized under the capital adequacy regime, e.g., in the U.S., Ireland and Switzerland.

### Regulatory requirements in Switzerland

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 Supervisory Authority (FINMA). Internal models must be approved by FINMA.

FINMA approved the use of Zurich Insurance Group's internal model for 2016 on a provisional basis, without prejudicing the final approval. Zurich Insurance Group filed with FINMA an SST ratio of 189 percent (unaudited) as of January 1, 2016, which was approved accordingly.

### Regulatory requirements in other countries

### Regulatory requirements in the European Economic Area

The directive on Solvency II was adopted on November 25, 2009. The complete framework was introduced on January 1, 2016. Solvency II is designed to be more risk-sensitive and sophisticated in its approach than Solvency I. Solvency II capital requirements also take into account all material risks and how these interact. Under Solvency II, every insurance and reinsurance entity is required to conduct its own risk and solvency assessment, including taking into account specific risk profiles. Under disclosure provisions, companies will have to publicly report their solvency and financial condition for the first time in 2017, based on 2016 figures.

Zurich Insurance plc (Ireland) applies the internal model, which aligns the Solvency II approach with that used for Z-ECM, and has received approval from the Central Bank of Ireland accordingly. Other EEA subsidiaries use the Solvency II standard formula.

### Regulatory requirements in the U.S.

In the U.S., required capital is determined to be 'company action level risk-based capital' calculated using the National Association of Insurance Commissioners' risk-based capital model. This method, which builds on regulatory accounts, measures the minimum amount of capital for an insurance company to support its overall business operations by taking into account its size and risk profile.

### Regulatory requirements in Asia Pacific, Latin America, and Middle East and Africa

Every country has a capital standard for insurance companies. Some jurisdictions, including Japan, Mexico, Chile, and Brazil, are implementing, reviewing or will review their economic capital requirements, considering similar approaches to Solvency II.

## Analysis by risk type

### Insurance risk

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.

### **General insurance risk**

General insurance risk comprises premium and reserve 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 general insurance predominantly relates to unexpected increases in the expenses relating 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 include 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 takes advantage of the diversification of general insurance risks across lines of business and geographic regions. Zurich Insurance Group's underwriting governance is applicable throughout the 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 underwriting guidelines. These guidelines generally include a technical price set in line with common standards to allow a return on risk-based capital in line with the Zurich Insurance Group's financial target. The ratio of actual premium to technical price is a key performance metric, which is monitored regularly. Technical reviews confirm whether underwriters perform within authorities 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. General insurance reserves are therefore regularly estimated, reviewed and monitored. The total loss and loss adjustment expense reserves are based on work performed by qualified and experienced actuaries at local, regional and Zurich Insurance Group levels.

To arrive at their reserve estimates, the actuaries take into consideration, among other things, the latest 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 such as technical price reviews.

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 management 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 General Insurance business by region and line of business based on direct written premiums before reinsurance. The increase in direct written premiums and policy fees for Special lines in North America is primarily the result of the acquisition of crop insurer Rural Community Insurance Services. General Insurance premiums ceded to reinsurers (including retrocessions) amounted to USD 7.0 billion and USD 5.6 billion for the years ended December 31, 2016 and 2015, respectively. Reinsurance programs are managed on a global basis, and therefore, net premium after reinsurance is monitored on an aggregated basis.

General Insurance – Direct written premiums and policy fees by line of business – current period

Table 1.a						
in USD millions, for the year ended				Special	Worker	
December 31, 2016	Motor	Property	Liability	lines	injury	Total
North America	1,689	2,733	3,258	3,819	2,844	14,342
Europe, Middle East & Africa	4,715	4,045	2,026	1,955	361	13,102
Other regions	1,382	1,196	357	1,249	143	4,326
Total	7,785	7,973	5,641	7,023	3,347	31,770

General Insurance – Direct written premiums and policy fees by line of business – prior period

Table 1.b						
in USD millions, for the year ended				Special	Worker	
December 31, 2015	Motor	Property	Liability	lines	injury	Total
North America	1,618	3,214	3,740	1,912	2,918	13,402
Europe, Middle East & Africa	5,176	4,491	2,231	1,953	461	14,312
Other regions	1,640	1,272	370	1,142	137	4,561
Total	8,434	8,977	6,341	5,007	3,515	32,274

### Analysis of sensitivities for general insurance 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, as a result 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. The 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 General Insurance business – current period

Table 2.a				
in USD millions, for the year ended December 31, 2016		North	Europe,	
	Global	America	Middle East	International
	Corporate	Commercial	& Africa	Markets
+1% in net loss ratio				
Net income before tax	(50)	(81)	(100)	(32)
Net assets	(34)	(55)	(68)	(22)

Insurance risk sensitivity for the General Insurance business – prior period

Table 2.b				
in USD millions, for the year ended December 31, 2015		North	Europe,	
	Global	America	Middle East	International
	Corporate	Commercial	& Africa	Markets
+1% in net loss ratio				
Net income before tax	(60)	(80)	(107)	(34)
Net assets	(39)	(51)	(69)	(22)

### Life insurance risk

The risks associated with life insurance include life liability risk (mortality, longevity, and morbidity), business risk (policyholder behavior, expense, and new business), market risk and credit 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
- → 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 lower than sufficient to cover fixed acquisition expenses
- → Market risk the risk associated with the 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, 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. As a result, the offsetting effects between unit-linked and traditional business reduce some of the risk associated with the Global 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.

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

Other life insurance liabilities include traditional life insurance products, such as protection and life annuity products. Protection products carry mortality, longevity and morbidity risk, as well as market and credit risk. 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.

The subsidiary Zurich American Life Insurance Company (ZALICO) wrote variable annuity contracts that provide policyholders with certain guarantees related to minimum death and income benefits. After 2001, ZALICO stopped issuing new policies with such features. The Zurich Insurance Group has a dynamic hedging strategy to manage its economic exposure and reduce the volatility associated with its closed book of variable annuity products within its U.S. life business. These exposures have been substantially reduced as a result of a policy buy-back program begun in 2015. The ZIC Group is also exposed to risks arising out of bank-owned life insurance contracts sold in the U.S. See heading 'other contracts' in note 7 of the consolidated financial statements for additional information.

Interest rate guarantees (with concentration in traditional, guaranteed business in Germany and Switzerland 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 Global Life business as the risk of exposure to increased losses associated with inadequately diversified portfolios of assets or obligations. Concentration risk for a life insurer may arise with respect to investments in a geographical area, economic sector, or individual issuers, or due to a concentration of business written within a geographical area, of a policy type, or of underlying risks covered.

Observing best-estimate assumptions on cash flows related to benefits of insurance contracts gives some indication of the size of the exposure to risks and the extent of risk concentration. Table 3 shows the ZIC Group's concentration of risk within the life business by region and line of business based on reserves for life insurance on a net basis. The ZIC Group's exposure to life insurance risks varies significantly by geographic region and line of business and may change over time. See note 8 of the consolidated financial statements for additional information on reserves for insurance contracts.

Reserves, net
of reinsurance,
by region

Table 3						
in USD millions, as of December 31		Unit-linked		Other life		
	insuran	ce contracts	insurance liabilities		Total reserves	
	2016	2015	2016	2015	2016	2015
Global Life						
North America	1,562	1,263	5,696	5,577	7,258	6,840
Latin America	11,961	8,036	4,653	3,863	16,614	11,899
Europe, Middle East & Africa	40,668	43,522	72,421	71,711	113,088	115,233
of which						
United Kingdom	17,359	20,778	2,610	3,054	19,968	23,832
Germany	14,183	13,530	35,338	36,418	49,521	49,948
Switzerland	718	726	17,494	18,015	18,212	18,741
Ireland	2,832	2,944	1,884	1,979	4,716	4,923
Spain	813	1,062	10,320	7,450	11,133	8,512
Italy	394	223	3,032	3,013	3,426	3,237
Rest of Europe	4,370	4,258	1,743	1,782	6,113	6,040
Asia Pacific	469	403	2,506	2,489	2,975	2,892
Other	_	_	279	272	279	272
Subtotal	54,660	53,224	85,554	83,912	140,214	137,136
Other segments	10,870	11,169	3,947	4,144	14,816	15,313
Total	65,530	64,393	89,500	88,056	155,030	152,449

### Analysis of sensitivities for life insurance risk

The Zurich Insurance Group uses market-consistent embedded value reporting principles, which allows Zurich Insurance Group to increase its understanding of, and report on, the risk profile of its life products, and how these risks would change under different market conditions. Embedded value is a measure that markets use to value life businesses.

### **Modeling natural 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.

To have a consistent approach and form a global perspective on accumulations, the Zurich Insurance Group models general insurance exposures in a center of excellence, which works with local businesses to help improve the overall quality of data. The Zurich Insurance Group models potential losses from property policies in hazard-prone areas with material exposure and from workers' compensation policies covering earthquakes in California, the U.S. Pacific Northwest and New Madrid (U.S. states of Arkansas, Illinois, Indiana, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Ohio, Tennessee, Wisconsin). Other non-property-related losses are estimated based on adjustments. Risk modeling mainly addresses climate-induced perils such as windstorms, river floods, tornadoes, hail storms, and geologically induced perils such as earthquakes.

The Zurich Insurance Group constantly seeks to improve its modeling, fill in gaps in models with additional assessments, and increase the granularity of data collection. It uses internal and external knowledge in modeling accumulations. One such source of external knowledge is the Natural Catastrophe Advisory Council, a group of scientists associated with leading research organizations such as the U.S. National Center for Atmospheric Research, the U.S. Geological Survey and the Intergovernmental Panel on Climate Change. Furthermore, Zurich Insurance Group is a Governor Sponsor of the Global Earthquake Model (GEM) Foundation, a shareholder of PERILS AG, and a member of the Risk Prediction Initiative (RPI) and the Oasis Loss Modeling Framework. Zurich validates modeling results by comparing them with claims experience.

### **Risks from man-made catastrophes**

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.

The Zurich Insurance Group reviews and aggregates worker injury, property and life risk exposures to identify areas of significant concentration and assesses other lines of business, such as liability and auto, although the potential exposure is not as significant. The data allow underwriters to evaluate how insuring a particular customer's risk might affect Zurich Insurance Group's overall exposure. Zurich Insurance Group uses a vendor-provided catastrophe model to evaluate potential exposures in every major U.S. city and selected cities in Europe. The Zurich Insurance Group undertakes more detailed and frequent analyses for cities in which Zurich Insurance Group has greater exposure. Outside the modeled areas, exposure concentrations are identified directly on Zurich's Risk Exposure Data Store (REDS), a system that stores information about our location-based exposure to risk in a single place.

The Zurich Insurance Group's analysis for general insurance business has shown that its exposures outside North America are lower, in large part due to government-provided pools; even so, the Zurich Insurance Group assesses the risk for countries with the next-greatest potential net exposure. The Zurich Insurance Group periodically monitors accumulation limits for these and other areas.

### Reinsurance for general insurance and life insurance

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 purchasing strategy for both General Insurance and Global Life, and bundles programs, where appropriate, to benefit from diversification and economies of scale.

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. The Zurich Insurance Group manages its central reinsurance purchasing according to these principles. The cession rate for General Insurance was 21.2 percent and 16.6 percent as of December 31, 2016 and December 31, 2015, respectively. The cession rate for Global Life was 5.6 percent and 17.2 percent as of December 31, 2016 and December 31, 2015, respectively. The decrease in ceded premiums for Global Life is due to temporary reinsurance in 2015 of a run-off portfolio.

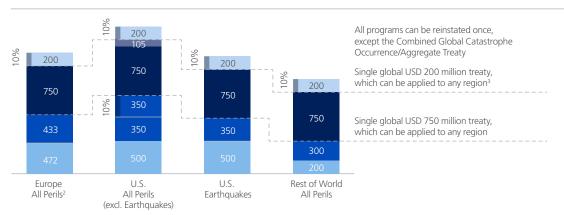
The Zurich Insurance Group uses traditional and collateralized reinsurance markets and other alternatives to protect itself against extreme single events, multiple event occurrences across regions, or increased frequency of events. Specifically, to protect the Zurich Insurance Group against man-made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

The Zurich Insurance Group participates in the underlying risks through its retention and through its co-participation in excess layers. The contracts are on a loss-occurrence basis except the Global Aggregate Catastrophe cover, which operates on an annual aggregate basis. The current catastrophe covers are placed annually with the exception of the USD 750 million Global Catastrophe treaty, which is a three-year treaty. In addition to these covers, the Zurich Insurance Group has some local catastrophe covers, a bilateral risk swap, and various lines of business-specific risk treaties in place. These covers are reviewed continuously and are subject to change going forward.

Major changes in 2016 included the non-renewal of the specific U.S. Earthquake Cat bond which is now covered as part of a traditional regional annually renewable treaty, the reduced attachment point of the U.S. and International Catastrophe towers, and the placement of a three-year USD 750 million Global Catastrophe treaty which can be applied to any region. To maintain a superior earnings protection for higher-frequency catastrophe scenarios, the Zurich Insurance Group slightly decreased the attachment point of the Global Aggregate Catastrophe treaty.

### Reinsurance for catastrophes by region – unusually severe catastrophe events<sup>1</sup>

USD millions, as of December 31, 2016



- Retention
- Regional cat treaties
- Global cat treaties
- U.S. wind swap
- Combined global cat treaty<sup>3</sup>
- Percentage of co-participation

### Reinsurance for catastrophes, aggregated – unusually frequent catastrophe events

USD millions, as of December 31, 2016

	Reinsurance indemnification in excess of fixed retention		
	10% 250	10% 200	
0 1,000	1,250	1,450	

- All cat losses exceeding USD 25 million
- Global aggregate cat treaty
- Combined global cat treaty
- Percentage of co-participation

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

<sup>&</sup>lt;sup>1</sup> The Global Aggregate Cat Treaty renewed on January 1, 2016; the U.S. and the Global Cat Treaty renewed on April 1, 2016; the Europe Cat Treaty and International Cat Treaty renewed

on July 1, 2016.

The Guide Hagging Cat Marky (File-Was) in Land and the Guide Hagging Cat Marky (File-Was) in July 1, 2016.

This USD 200m cover is the same combined global occurrence/aggregate treaty presiding over the global catastrophe treaty. This cover can be used only once, either for aggregated losses or for an individual occurrence or event.

<sup>&</sup>lt;sup>1</sup> This USD 200m cover is the same combined global occurrence/aggregate treaty presiding over the global catastrophe treaty. This cover can be used only once, either for aggregated losses or for an individual occurrence or event.

## Market risk including investment credit risk

Market risk is the risk associated with the 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
- → Defaults 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 the Zurich Insurance Group's risk appetite and 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. To control risk aggregation and ensure a consistent approach to constructing portfolios and choosing external asset managers, 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. The 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 also limits illiquid investments.

The Asset/Liability Management Investment Committee reviews and monitors Zurich Insurance Group strategic asset allocation and tactical boundaries, and monitors Zurich Insurance Group 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. Actions to mitigate risk are taken if necessary to manage fluctuations affecting asset/liability mismatch and risk-based capital.

The Zurich Insurance Group uses 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.

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

### Risk from equity securities and property

The Zurich Insurance Group is exposed to risks from price fluctuations on equity securities and property which could affect the Zurich Insurance Group's liquidity, reported income, economic surplus and regulatory capital position. Equity risk exposure includes common stocks, including equity unit trusts, private equity, common stock portfolios backing participating-with-profit policyholder contracts, and equities held for employee benefit plans. Exposure to property risk includes direct holdings in property, listed property company shares and funds, as well as property debt securities such as commercial and residential mortgages, commercial and residential mortgage-backed securities and mezzanine debt. 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 property 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. In order 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.

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

### 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.

Zurich Insurance Group has limits on holdings in real assets and limits on deviations of asset interest rate sensitivities from liability interest rate sensitivities. The Zurich Insurance Group also manages credit-spread risk, which describes the sensitivity of the values of assets and liabilities due to changes in the level or the volatility of credit spreads over the risk-free interest rate yield curves. Movements of credit spreads are driven by expected probability of default, expected losses in cases of defaults of issuers, the uncertainty of default probabilities and losses, as well as actual defaults of issuers.

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

### Basis of presentation – General Insurance and rest of the business

The basis of the presentation for tables 4, 5, and 6 is an economic valuation represented by the fair value for ZIC Group investments, IFRS insurance liabilities are discounted at risk-free market rates to reflect the present value of insurance liability cash flows and other liabilities, for example own debt. (Note: the Zurich Insurance Group describes risk-free market rates as swap rates). In the sensitivities, own debt does not include subordinated debt, which Zurich Insurance Group considers available to protect policyholders in a worst-case scenario.

Tables 4, 5 and 6 show the estimated economic market risk sensitivities of the net impact for General Insurance and the rest of the business. Positive values represent an increase in the balance, and values in parentheses represent a decrease. Mismatches in changes in value of assets relative to liabilities represent an economic risk to the ZIC Group. The net impact – the difference between the impact on ZIC Group investments and liabilities – represents the economic risk related to changes in market risk factors that the ZIC Group faces.

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

Sensitivities for the rest of the business include Farmers, Other Operating Businesses and Non-Core Businesses.

### Basis of presentation - Global Life

Tables 4, 5 and 6 show the estimated economic sensitivity of the embedded value of the Global Life business to financial market movements. Actions that would be taken by management or policyholders are considered. For contracts with financial options and guarantees, such as some participating business, movements in financial markets can change the nature and value of these benefits. The dynamics of these liabilities are captured so that this exposure is quantified, monitored, managed and where appropriate, mitigated.

For the economies in the U.S., the UK and the Eurozone, risk-free nominal interest rate are modeled using a LIBOR market model. Negative nominal interest rates, if any, are floored to zero. For Switzerland, risk free nominal interest rates are modeled using a variant of the LIBOR market model with displacement diffusion and stochastic volatility. This model allows for modelling negative nominal interest rates in a market where these are more severe than in other economies.

For more information, see the 'embedded value report 2016' at www.zurich.com/investor-relations/results-and-reports.

### Analysis of economic sensitivities for interest rate risk

Table 4 shows the estimated impacts of a 100 basis point increase/decrease in yield curves after consideration of hedges in place, as of December 31, 2016 and 2015, respectively.

## **Economic interest** rate sensitivities

Table 4		
In USD millions, as of December 31	2016	2015
100 basis point increase in the interest rate yield curves		
General Insurance business		
Net impact after tax <sup>1,2</sup>	(156)	(293)
Global Life business		
Total impact on Embedded Value	(192)	(276)
Rest of the business		
Net impact after tax <sup>1,2</sup>	(106)	67
100 basis point decrease in the interest rate yield curves		
General Insurance business		
Net impact after tax <sup>1,2</sup>	55	252
Global Life business		
Total impact on Embedded Value	(388)	29
Rest of the business		
Net impact after tax <sup>1,2</sup>	122	(158)

<sup>&</sup>lt;sup>1</sup> Modeling enhancements for the General Insurance business reflecting revised estimates over the expected duration on certain inter-company loans resulted in an increase of USD 102 million and a decrease of USD 208 million for the 100 basis point increase and decrease, respectively, in the interest rate yield curves for the year ending December 31. 2016. This results in equal and offsetting impacts to the Rest of the Business.

### Analysis of economic sensitivities for equity risk

Table 5 shows the estimated impacts from a 10 percent decline in stock markets, after consideration of hedges in place, as of December 31, 2016 and 2015, respectively.

## **Economic equity** price sensitivities

Table 5		
In USD millions, as of December 31	2016	2015
10% decline in stock markets		
General Insurance business		
Net impact after tax	(381)	(467)
Global Life business		
Total impact on Embedded Value	(262)	(289)
Rest of the business		
Net impact after tax	(34)	(31)

ending December 31, 2016. This results in equal and offsetting impacts to the Rest of the Business.

Sensitivities for General Insurance and Rest of the Business have been developed using general insurance liability cash flow data as of September 30, 2016, re-valued as of December 31, 2016 using standard methodology and models.

### Analysis of economic sensitivities for credit spread risk

Table 6 shows the estimated impacts from a 100 basis points increase in corporate credit spreads, as of December 31, 2016 and 2015, respectively. The sensitivities apply to all fixed income instruments, excluding government, supranational and similar debt securities.

### **Economic credit** spread sensitivities

Table 6		
In USD millions, as of December 31	2016	2015
100 basis point increase in credit spreads		
General Insurance business		
Net impact after tax	(1,127)	(1,022)
Global Life business		
Total impact on Embedded Value	(1,122)	(1,056)
Rest of the business		
Net impact after tax	(259)	(225)

Limitations of the analysis for General Insurance and rest of the business:

- The sensitivities show the effects of a change of certain risk factors, while other assumptions remain unchanged.
   The interest rate scenarios assume a parallel shift of all interest rates in the respective currencies. They do not take into account the possibility that interest rate changes
- might differ by rating class; these are disclosed separately as credit spread risk sensitivities.

   The sensitivity analysis is based on economic net assets, and not on shareholders' equity or net income as set out in the consolidated financial statements.
- The sensitivity analysis is calculated after tax; the ZIC Group effective tax rate is 31.7 percent for 2016 and 35.5 percent for 2015.
   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 Zurich Insurance Group's view of expected future market changes. In addition to the sensitivities, management uses stress scenarios to assess the impact of more severe market movements on the Zurich Insurance Group's financial condition.

For more information on stress scenarios, see 'impact of market, credit, and insurance scenarios on Z-ECM (unaudited).'

Limitations of the analysis for Global Life:

- -The sensitivities show the effects of a change in certain risk factors, while other assumptions remain unchanged, except where they are directly affected by the
- The market risk scenarios assume a concurrent movement of all stock markets and an unrelated parallel shift of all interest rates in different currencies
- The assumptions on policyholder behavior, such as lapsing of policies, included in the sensitivity analysis for Global Life may be different from actual behavior. Therefore, the actual impact may deviate from the analysis.

### **Risks 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 those entities.

### **Debt securities by** rating of issuer

Table 7				
as of December 31		2016		2015
	<b>USD</b> millions	% of total	USD millions	% of total
Rating				
AAA	28,503	20.3%	29,228	21.2%
AA	46,497	33.2%	47,332	34.4%
A	23,133	16.5%	24,165	17.5%
BBB	35,733	25.5%	32,728	23.8%
BB and below	5,193	3.7%	4,235	3.1%
Unrated	1,122	0.8%	42	0.0%
Total	140,181	100.0%	137,730	100.0%

Table 7 shows the credit risk exposure of debt securities, by issuer credit rating. As of December 31, 2016, 95.5 percent of the ZIC Group's debt securities was investment grade and 20.3 percent was rated 'AAA.' As of December 31, 2015, 96.9 percent of debt securities was investment grade and 21.2 percent was rated 'AAA.'

In August 2016, the Zurich Insurance Group revised its investment policy to allow for speculative grade investments without specific authorization. Revised limits are now based on default and recovery rates that tighten progressively for lower ratings. Where the Zurich Insurance Group identifies investments expected to trigger limit breaches, appropriate actions are implemented.

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As of December 31, 2016, the largest concentration in the ZIC Group's debt securities portfolio was in governments, supranationals and similar at 47.5 percent. In all other categories, a total of USD 22.0 billion or 29.9 percent was secured. As of December 31, 2015, 46.6 percent of the ZIC Group's debt portfolio was invested in governments, supranationals and similar. In all other categories, a total of USD 24.5 billion or 33.3 percent was secured.

In addition to debt exposure, the ZIC Group had loan exposure of USD 4.3 billion and USD 4.7 billion to the German Central Government or the German Federal States as of December 31, 2016 and 2015, 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 19.8 percent, of which 37.8 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). Although credit risks of the underlying securities are diverse in nature, the Zurich Insurance Group also considers macro impacts that may affect structured finance sub-categories (e.g., auto or credit card ABS) in its credit assessments. Structured finance exposures are assessed on a look-through basis prior to acquisition and not merely on the strength of prevailing credit ratings or credit profiles.

### 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.

Cash and cash equivalents amounted to USD 7.1 billion as of December 31, 2016 and USD 7.8 billion as of December 31, 2015. The risk-weighted average rating of the overall cash portfolio is 'A-' as of December 31, 2016 and December 31, 2015. 58 percent of the total was with the 10 largest global banks, whose risk-weighted average rating remain stable at 'A' as of December 31, 2016 and December 31, 2015.

### **Mortgage loans**

The mortgage business is affected by local property market conditions and local legislation. Investment portfolio allocations made to mortgages take these factors into consideration, are in line with the framework of the strategic asset allocation defined by the Zurich Insurance Group, and adapted and approved by local investment committees.

The ZIC Group's largest mortgage loan portfolios are held in Germany (USD 2.4 billion) and in Switzerland (USD 3.5 billion); these are predominantly secured against residential property but also include mortgages secured by commercial property. In Switzerland, the underlying properties backing individual loans are revalued every 10 years. In Germany, the property valuation is not always reassessed after the mortgage loan is granted. A less-frequent, or no revaluation of the underlying property means that reported loan-to-value (LTV) ratios will be higher/lower than they would be if property prices had risen/fallen since their valuation. Conservative lending criteria (i.e., maximum mortgage-loan to property-value ratios) and diversification of loans across many single borrowers, particularly in Germany and in Switzerland, help reduce potential loss.

In 2016 the ZIC Group started investing in mortgages in the U.S. (USD 0.6 billion). These are mainly participations in large mortgage loans secured against commercial property.

Business units are required to clearly state criteria for determining borrower and collateral quality in their local investment guidelines. The Zurich Insurance Group sets requirements for local investment guidelines, and monitoring and reporting standards. The Zurich Insurance Group closely monitors performance of portfolios with respect to impairments and losses.

### Other loans

The credit risk arising from other loans is assessed and monitored together with the 'debt securities' portfolio. 50.4 percent of the reported loans are to governments, supranationals and similar, of which 94.2 percent are to the German Central Government or the German Federal States. Table 8 shows the composition of the loan portfolio by rating class. As of December 31, 2016, a total of USD 5.5 billion or 60.4 percent of loans are secured. As of December 31, 2015, a total of USD 5.0 billion or 52.6 percent of loans were secured.

Other loans
by rating
of issuer

Table 8				
as of December 31		2016		2015
	USD millions	% of total	USD millions	% of total
Rating				
AAA	3,929	43.0%	4,243	44.3%
AA	565	6.2%	696	7.3%
A	3,342	36.5%	1,702	17.8%
BBB and below	1,311	14.3%	1,624	17.0%
Unrated	_	_	1,303	13.6%
Total	9,146	100.0%	9,569	100.0%

### **Derivatives**

The positive 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. The Zurich Insurance Group's standard practice is to only transact derivatives with those counterparties for which the Zurich Insurance Group has in place an ISDA Master Agreement, with a Credit Support Annex. This mitigates credit exposures from over-the-counter transactions due to close-out netting and requires the counterparty to post collateral when the derivative position exceeds an agreed threshold. The 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. For information on net gains/losses on foreign currency transactions included in the consolidated income statements, see note 1 of the consolidated financial statements. The monetary currency risk exposure on local balance sheets is considered immaterial.

Differences arise when functional currencies are translated into the 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 9 shows the total IFRS equity's sensitivity 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. See notes 1, 3 and 7 of the consolidated financial statements for additional information on foreign currency translation and transactions.

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

Table 9		
in USD millions, as of December 31	2016	2015
10% increase in		
EUR/USD rate	518	584
GBP/USD rate	163	202
CHF/USD rate	441	56
BRL/USD rate	139	97
Other currencies/USD rates	546	525

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 9 shows the effect of a 10 percent increase in currency exchange rates, a decrease of 10 percent would have the converse effect.

### Other credit risk

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, 2016 or December 31, 2015.

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 7 million for both years as of December 31, 2016 and December 31, 2015. See note 22 of the consolidated financial statements for undrawn loan commitments.

### 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, 2016 and 2015 respectively, 66 percent and 73 percent of the business ceded to reinsurers that fall below 'A–' or are not rated is collateralized. Of the business ceded to reinsurers that fall below 'A–' or are not rated, 32 percent was ceded to captive insurance companies, in 2016 and in 2015.

Reinsurance assets included reinsurance recoverables (the reinsurers' share of reserves for insurance contracts) of USD 18.4 billion and USD 17.9 billion, and receivables arising from ceded reinsurance of USD 1.4 billion and USD 0.9 billion as of December 31, 2016 and 2015, respectively, gross of allowance for impairment. Reserves for potentially uncollectible reinsurance assets amounted to USD 94 million as of December 31, 2016 and USD 149 million as of December 31, 2015. 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 10 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, 2015, collateral decreased by USD 0.6 billion to USD 8.4 billion. In 2015, reinsurance assets and collateral increased due to the sale of a run-off portfolio.

Table 10 shows reinsurance premiums ceded and reinsurance assets split by rating.

Reinsurance premiums ceded and reinsurance assets by rating of reinsurer and captive

Table 10								
as of December 31				2016				2015
	Prem	iums ceded	Reinsur	ance assets	Pren	niums ceded	Reins	urance assets
	USD	% of	USD	% of	USD	% of	USD	% of
	millions	total	millions	total	millions	total	millions	total
Rating								
AAA	68	0.9%	29	0.1%	72	0.9%	36	0.2%
AA	2,178	27.9%	5,402	27.3%	1,188	14.7%	4,770	25.6%
A	2,883	36.9%	8,625	43.6%	2,284	28.3%	8,271	44.3%
BBB	933	11.9%	1,366	6.9%	861	10.7%	1,244	6.7%
BB	267	3.4%	566	2.9%	325	4.0%	530	2.8%
В	310	4.0%	379	1.9%	258	3.2%	194	1.0%
Unrated	1,205	15.0%	3,383	17.3%	3,090	38.3%	3,617	19.4%
Total <sup>1</sup>	7,843	100.0%	19,749	100.0%	8,078	100.0%	18,662	100.0%

<sup>&</sup>lt;sup>1</sup> The value of the collateral received amounts to USD 8.4 billion and USD 9.0 billion as of December 31, 2016 and 2015, 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. See notes 15 and 24 of the consolidated financial statements for additional information on receivables.

## Operational risk

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. This approach allows information to be compared across the Zurich Insurance Group and highlights the main scenarios contributing to the Z-ECM capital required.
- → Documents and reviews loss events exceeding a threshold determined by the Zurich Risk Policy. Remedial action is taken to avoid a recurrence of such operational loss events.
- → Conducts risk assessments where operational risks are identified for key business areas. Risks identified and assessed above a certain threshold must be mitigated. Risk mitigation plans are documented and tracked on an ongoing basis. In the assessments, the 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. For Z-ECM calculations, claims fraud is part of insurance risk and non-claims fraud is part of operational risk.

## 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-wide liquidity management policies and specific guidelines govern how local businesses plan, manage and report their local liquidity and include regular stress tests for all major carriers within the Zurich Insurance Group. The stress tests use a standardized set of internally defined stress events, and are designed to provide an overview of the potential drain on liquidity if the Zurich Insurance Group had to recapitalize local balance sheets. Similar guidelines apply at the Zurich Insurance Group level, and detailed liquidity forecasts are regularly conducted, based on local businesses' input and the Group's forecasts. As part of its liquidity management, the 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 the Zurich Insurance Group's potential liquidity needs, including those that might arise in times of stress. The Group takes into account the amount, availability and speed at which these sources can be accessed. The 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 Group'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 limits the percentage of the investment portfolio that is not readily realizable and regularly monitors exposures to take action if necessary to maintain an appropriate level of asset liquidity. During 2016, the Zurich Insurance Group was within its limits for asset liquidity. The fair value hierarchy tables in note 23 of the consolidated financial statements segregate financial assets into three levels, reflecting the basis for how fair value was determined. These tables indicate the high degree of liquidity of the ZIC Group's investments.

See note 18 of the consolidated financial statements for more information on debt obligation maturities and credit facilities and note 22 of the consolidated financial statements for information on commitments and guarantees. 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. For more information on the ZIC Group's other financial liabilities, see note 16 of the consolidated financial statements. See note 6 of the consolidated financial statements for information on the maturity of debt securities for total investments.

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. See note 22 of the consolidated financial statements.

## Strategic risk and risks to the Zurich Insurance Group's reputation

### Strategic risk

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

Strategic risks can arise from:

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

Zurich Insurance Group defines the strategy as the long-term plan of action designed to allow the Zurich Insurance Group 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<sup>TM</sup> (TRP) process. As part of the regular TRP process, in 2016 the Executive Committee (ExCo) assessed the key strategic risk scenarios, looking at 2017 and beyond. The Zurich Insurance Group TRP identified and assessed risks in executing the Zurich Insurance Group's operational transformation, maintaining customer focus and execution of technical excellence, information security and cyber risks, adverse Brexit outcomes, euro banking crisis, and adverse reserve development arising from accelerating inflation and inflation expectations. Mitigation 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.

### **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 the Zurich Insurance Group's reputation or lead to a loss of trust among its stakeholders. Every risk type has potential consequences for Zurich Insurance Group's reputation. Effectively managing each type of risk helps reduce threats to 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, communications, through functions with the appropriate expertise.

## Operating and financial review

The operating and financial review is the management analysis of the business performance of Zurich Insurance Company Ltd and its subsidiaries (collectively the 'Zurich Insurance Company Group' or 'ZIC Group') for the years ended December 31, 2016, compared with 2015.

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The information contained within the operating and financial review is unaudited and is based on the consolidated results of the ZIC Group for the years ended December 31, 2016 and 2015. All amounts are shown in U.S. dollars and rounded to the nearest million unless otherwise stated, with the consequence that the rounded amounts may not always add up to the rounded total. All ratios and variances are calculated using the underlying amounts rather than the rounded amounts. This document should be read in conjunction with the annual results 2016 of the ZIC Group and, in particular, with its consolidated financial statements for the year ended December 31, 2016.

In addition to the figures stated in accordance with International Financial Reporting Standards (IFRS), the ZIC Group uses business operating profit (BOP), new business measures and other performance indicators to enhance the understanding of its results. Details of these additional measures are set out in the separately published glossary. These should be viewed as complementary to, and not as substitutes for the IFRS figures. For a reconciliation of BOP to net income attributable to shareholders (NIAS), see table 27.2 in note 27 of the consolidated financial statements.

On June 10, 2016, Zurich announced a planned change in the structure of the ZIC Group, effective July 1, 2016, which will lead to a simpler, more customer-oriented structure and reduced complexity. The new business structure will be focused on geographic regions in our core businesses of Property and Casualty (P&C) and Life – Asia Pacific, Europe, Middle East and Africa (EMEA), Latin America and North America – as well as Farmers, Group Functions and Operations and Non-Core Businesses. On September 20, 2016, Zurich announced further changes to the business structure of the ZIC Group by creating a new unit, called Commercial Insurance, which will combine its Corporate and Commercial business into a single global business. The new reporting structure will be reflected in the consolidated financial statements in 2017.

## Financial highlights

in USD millions, for the years ended December 31, unless otherwise stated	2016	2015	Change <sup>1</sup>
Business operating profit	4,159	2,895	44%
Net income attributable to shareholders	2,911	1,859	57%
General Insurance gross written premiums and policy fees	33,122	34,020	(3%)
Global Life gross written premiums, policy fees and insurance deposits	30,347	29,037	5%
Farmers Management Services management fees and other related revenues	2,867	2,786	3%
Farmers Re gross written premiums and policy fees	1,587	2,145	(26%)
General Insurance business operating profit	2,154	864	149%
General Insurance combined ratio	99.5%	103.6%	4.1 pts
Global Life business operating profit	1,335	1,290	4%
Farmers business operating profit	1,451	1,357	7%
Farmers Management Services gross management result	1,367	1,338	2%
Farmers Management Services managed gross earned premium margin	7.0%	7.1%	(0.1 pts)
Average Group investments	190,995	198,605	(4%)
Net investment result on Group investments	7,048	7,507	(6%)
Net investment return on Group investments <sup>2</sup>	3.7%	3.8%	(0.1 pts)
Total return on Group investments <sup>2</sup>	4.3%	1.7%	2.6 pts
Shareholders' equity <sup>3</sup>	29,363	29,646	(1%)

Parentheses around numbers represent an adverse variance.
 Calculated on average Group investments.
 As of December 31, 2016 and December 31, 2015, respectively.

## Operating and financial review (continued)

### Performance overview

The ZIC Group's business operating profit of USD 4.2 billion increased by USD 1.3 billion, or 44 percent in U.S. dollar terms and 48 percent on a local currency basis compared with 2015, as underlying performance in all core businesses improved. The General Insurance result progressed favorably following the impact of re-underwriting and pricing actions initiated in the second six months of 2015. The result also benefited from lower catastrophe losses and weather related events, as well as favorable prior year development, despite the announcement by the UK Ministry of Justice on February 27, 2017 regarding the outcome of its review of the Ogden discount rate. The discount rate was changed from 2.5 percent to minus 0.75 percent. The ZIC Group was reserved at an assumed discount rate of 1 percent. The impact of the change in rate to minus 0.75 percent was an increase in reserves for losses and loss adjustment expenses of USD 281 million in General Insurance and USD 34 million in Zurich Legacy Solutions. Global Life achieved a strong result and continued to grow, while maintaining its focus on priority markets and on extracting value from in-force business. Farmers Management Services also continued its positive momentum from premium growth, though Farmers Re incurred higher losses, mainly as a result of higher catastrophe events.

Net income attributable to shareholders of USD 2.9 billion increased by USD 1.1 billion, or by 57 percent in U.S dollar terms and 60 percent on a local currency basis. The increase arose mainly from the increase in business operating profit, as well as the lack of goodwill impairment in 2016 as compared to 2015 and lower restructuring charges.

Shareholders' equity decreased by USD 283 million to USD 29.4 billion during 2016. The cost of the dividend approved in March 2016, net actuarial losses on pension plans and negative currency translation adjustments, were partly offset by the net income and net unrealized gains on investments.

**Business operating profit** increased by USD 1.3 billion to USD 4.2 billion, or by 44 percent in U.S. dollar terms and increased 48 percent on a local currency basis.

- → **General Insurance** business operating profit increased by USD 1.3 billion to USD 2.2 billion, resulting mainly from an improvement in the net underwriting result of USD 1.1 billion across all regions.
- → **Global Life** business operating profit increased by USD 45 million to USD 1.3 billion, or 4 percent in U.S. dollar terms and 9 percent on a local currency basis. Improvements on a local currency basis in Latin America, EMEA and Asia Pacific were offset by a lower contribution from North America. Lower overall costs net of deferrals and improvements in investment margin were partly offset by a deterioration in the technical margin.
- → Farmers business operating profit increased by USD 94 million to USD 1.5 billion, or by 7 percent. Farmers Management Services business operating profit increased by USD 113 million to USD 1.4 billion, driven by growth in gross earned premiums of the Farmers Exchanges¹ and a one-time USD 86 million favorable impact as a result of a pension plan curtailment gain. Farmers Re business operating profit decreased by USD 19 million to USD 41 million, due to a lower underwriting result compared with 2015.
- → Other Operating Businesses reported a business operating loss of USD 736 million, compared with a loss of USD 689 million in 2015. The increased loss was primarily due to the impact of less favorable foreign exchange movements and several one-off items in both 2016 and 2015.
- → Non-Core Businesses reported a business operating loss of USD 45 million compared with a profit of USD 73 million in 2015. This deterioration resulted from a higher release of long-term reserves in 2015 compared with 2016, as a consequence of a buy-back program for a variable annuity product in the U.S., and the strengthening of reserves relating to the review of the Ogden discount rate.

<sup>&</sup>lt;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.

**Business volumes** for the core business segments, comprising gross written premiums, policy fees, insurance deposits and management fees, decreased by USD 65 million to USD 67.9 billion, broadly flat in U.S. dollar terms, but increased 4 percent on a local currency basis.

- → **General Insurance** gross written premiums and policy fees decreased by USD 898 million to USD 33.1 billion, or 3 percent in U.S. dollar terms, but remained flat on a local currency basis. 2016 includes the acquisition of Rural Community Insurance Services (RCIS) in North America Commercial beginning April 1, 2016. Excluding RCIS, gross written premiums decreased by 4 percent on a local currency basis, with decreases across all regions except Latin America.
- → Global Life gross written premiums, policy fees and insurance deposits increased by USD 1.3 billion to USD 30.3 billion, or 5 percent in U.S. dollar terms and 10 percent on a local currency basis. The increase on a local currency basis occurred predominantly in EMEA, driven by higher sales of Corporate Life & Pensions and individual savings business, and in Latin America, which included the effect of a large corporate contract in Chile
- → Farmers Management Services management fees and other related revenues increased by USD 81 million to USD 2.9 billion, or 3 percent, due to growth in gross earned premiums of the Farmers Exchanges. Farmers Re gross written premiums and policy fees decreased by USD 558 million to USD 1.6 billion, or by 26 percent, due to lower reinsurance assumed from the Farmers Exchanges.

The **net investment result on Group investments**, before allocations to policyholders, of USD 7.0 billion decreased by USD 459 million, or by 6 percent in U.S. dollar terms and 4 percent on a local currency basis, resulting in a **net investment return on average Group investments** of 3.7 percent compared with 3.8 percent in 2015. **Net investment income**, predominantly included in the core business results, of USD 5.5 billion decreased by USD 66 million, or 1 percent in U.S. dollar terms, but was 1 percent higher on a local currency basis. **Net capital gains on investments and impairments** included in the net investment result decreased by USD 393 million to USD 1.6 billion, mainly due to lower realizations compared with 2015. **Total return on average Group investments** was 4.3 percent, compared with 1.7 percent for 2015. Total return includes the net investment return and the favorable impact from net unrealized investment gains before allocations to policyholders, of USD 1.2 billion compared with losses of USD 4.2 billion in 2015, neither of which flow through net income. This improvement arose mainly as a result of positive equity market performance in 2016 and falling bond yields compared with rising bond yields during 2015.

The **shareholders' effective tax rate** decreased to 30.2 percent for the period ended December 31, 2016 compared with 35.5 percent for 2015. The decrease of 5.3 percentage points reflects changes in the geographical profit mix and the effect of several non-recurring charges in 2015, which did not attract tax relief.

## Operating and financial review (continued)

### General Insurance

in USD millions, for the years ended December 31	2016	2015	Change
Gross written premiums and policy fees	33,122	34,020	(3%)
Net earned premiums and policy fees	26,102	28,051	(7%)
Insurance benefits and losses, net of reinsurance	17,675	20,152	12%
Net underwriting result	131	(1,002)	nm
Net investment result	2,086	2,002	4%
Net non-technical result (excl. items not included in BOP)	70	(29)	nm
Non-controlling interests	133	108	(23%)
Business operating profit	2,154	864	149%
Loss ratio	67.7%	71.8%	4.1 pts
Expense ratio	31.8%	31.7%	(0.1 pts)
Combined ratio	99.5%	103.6%	4.1 pts

in USD millions, for the years ended December 31	<b>Business operat</b>	Business operating profit (BOP)		
	2016	2015	2016	2015
Global Corporate	284	(345)	105.0%	113.9%
North America Commercial	973	768	96.1%	98.2%
Europe, Middle East & Africa (EMEA)	773	403	97.9%	101.3%
International Markets	364	82	95.4%	103.3%
GI Global Functions including Group Reinsurance	(240)	(45)	nm	nm
Total	2,154	864	99.5%	103.6%

**Business operating profit** increased by USD 1.3 billion to USD 2.2 billion, resulting mainly from an improvement in the net underwriting result of USD 1.1 billion across all regions, despite the strengthening of reserves relating to the review of the Ogden discount rate. The non-technical result improved largely due to foreign exchange gains and the sale of own-use real estate in Germany. The net investment result benefited from higher hedge fund gains compared with 2015, mostly in North America.

**Gross written premiums and policy fees** decreased by USD 898 million to USD 33.1 billion, or 3 percent in U.S. dollar terms, but remained flat on a local currency basis. Excluding RCIS in the North America Commercial result, gross written premiums overall decreased by 4 percent on a local currency basis, with decreases across all regions except Latin America. The decreases were a result of the focus on profitability, the impact of soft market conditions and exiting business in South Africa and Morocco. Overall, rates rose by around 2 percent in 2016.

The **net underwriting result** improved by USD 1.1 billion to USD 131 million, with an overall combined ratio of 99.5 percent, an improvement of 4.1 percentage points from 2015. The loss ratio improved by 4.1 percentage points reflecting lower catastrophe and weather events, and an improvement in large and underlying loss experience across most regions. The result also reflects favorable development in loss reserves established in prior years compared with negative development in 2015. The favorable development in 2016 was due to reductions in most regions, partly offset by Group Reinsurance and reserve strengthening in the UK relating to the review of the Ogden discount rate. The expense ratio remained at prior year levels, reflecting a lower expense base as a result of initiatives to reduce costs across all regions and the effect of positive non-recurring items in 2016, offset by lower premium volumes.

### Global Life

in USD millions, for the years ended December 31	2016	2015	Change
Insurance deposits	14,817	14,591	2%
Gross written premiums and policy fees	15,530	14,446	7%
Net investment income on Group investments	3,244	3,320	(2%)
Insurance benefits and losses, net of reinsurance	(11,510)	(8,612)	(34%)
Business operating profit	1,335	1,290	4%
Net policyholder flows <sup>1</sup>	8,338	7,200	16%
Assets under management <sup>2, 3</sup>	255,729	254,210	1%
Total reserves for life insurance contracts, net of reinsurance, and			
liabilities for investment contracts (net reserves) <sup>3</sup>	209,118	207,542	1%

1 Net policyholder flows are defined as the sum of gross written premiums and policy fees and deposits, less policyholder benefits.

**Business operating profit** increased by USD 45 million to USD 1.3 billion, or 4 percent in U.S. dollar terms and 9 percent on a local currency basis. Improvements on a local currency basis in Latin America, EMEA, and Asia Pacific were partly offset by a lower contribution from North America. In EMEA, the main improvement on a local currency basis arose through the investment margin and lower overall costs. This improvement was partly offset by a deterioration in the technical margin from higher claims and lower fees due to lower volumes and change in mix of business. Asia Pacific benefited from growth, including the contribution of recent acquisitions, and the transition to run-off of the Singapore business, with a corresponding transfer to Non-Core Businesses. In Latin America, higher volumes, increased investment returns and overall favorable claims experience were the main contributors on a local currency basis. North America was mainly affected by an adverse variance resulting from a review of expected persistency in certain universal life books of business.

Loadings and fees deteriorated in U.S dollar terms, but remained flat on a local currency basis. In local currency, volume growth in Latin America and the positive contribution from the recent acquisitions in Asia Pacific, both MAA Takaful Berhad insurance company in Malaysia and the retail life insurance protection business of Macquarie Group in Australia, were offset by lower fees in EMEA largely from lower single premium business in Germany and changes in mix of business in the UK. Investment margin improved in U.S. dollar terms and on a local currency basis. The improvement largely occurred in EMEA and Latin America. In EMEA the increase arose mainly from lower policyholder crediting rates in Switzerland and in Germany, consistent with market conditions, and higher asset bases in Spain and Italy, where business has been growing. In Latin America, local currency improvements were driven by higher investment returns, mostly in Brazil and Mexico. Technical margin deteriorated in U.S dollar terms and on a local currency basis. This deterioration was predominantly driven by adverse claims experience in EMEA and the International Group Risk (IGR) business, where higher than expected levels of large losses occurred.

Operating and funding costs improved in U.S dollar terms and on a local currency basis. In local currency, the positive impact of disciplined central expense management, expense reductions across EMEA and a one-off benefit relating to unit-linked funds in the UK were partly offset by project costs for growth initiatives in other regions. Acquisition costs decreased in U.S dollar terms and on a local currency basis. The decrease on a local currency basis reflected lower volumes of business, particularly in Germany, and changes in business mix in the rest of EMEA and in North America. The contribution from the impact of deferrals decreased in U.S. dollar terms and on a local currency basis. The negative effect arose mainly in North America, resulting from the review of expected persistency in certain universal life books of business and changes in product mix, and in EMEA, also impacted by changes in product mix.

<sup>&</sup>lt;sup>2</sup> Assets under management comprise Group and unit-linked investments that are included in the Global Life balance sheet plus assets that are managed by third parties, on which fees are earned.

<sup>&</sup>lt;sup>3</sup> As of December 31, 2016 and December 31, 2015, respectively.

## Operating and financial review (continued)

**Insurance deposits** increased by USD 227 million to USD 14.8 billion, or 2 percent in U.S. dollar terms and 8 percent on a local currency basis. On a local currency basis, increases occurred in EMEA driven by Corporate Life & Pensions products in the UK, partly offset in Ireland, where a small number of large contracts boosted volumes in 2015.

**Gross written premiums and policy fees** increased by USD 1.1 billion to USD 15.5 billion, or by 7 percent in U.S. dollar terms and 11 percent on a local currency basis. The increase on a local currency basis arose predominantly in EMEA and Latin America, from higher sales of individual savings products in Spain, individual protection products in Zurich Santander and a large corporate contract in Chile, with a partial offset due to lower sales of single premium products in Germany.

**Net policyholder flows** were positive at USD 8.3 billion and USD 1.1 billion higher compared with 2015. The majority of the improvement occurred in the retail business in EMEA, driven by individual savings business in Spain, with a partial offset in Germany due to lower single premium business. **Assets under management** increased by 1 percent in U.S. dollar terms. An increase driven by positive net policyholder flows and favorable market movements was partly offset by the impact of the weaker British pound against the U.S. dollar on investments denominated in British pounds. **Net reserves** increased by 1 percent in U.S. dollar terms, substantially reflecting movements similar to those in the related assets.

### **Farmers**

Farmers business operating profit increased by USD 94 million to USD 1.5 billion. This was due to an increase of USD 113 million in Farmers Management Services, which was partly offset by a reduction in business operating profit of USD 19 million in Farmers Re.

### **Farmers Management Services**

in USD millions, for the years ended December 31	2016	2015	Change
Management fees and other related revenues	2,867	2,786	3%
Management and other related expenses	(1,500)	(1,448)	(4%)
Gross management result	1,367	1,338	2%
Other net income	44	(41)	nm
Business operating profit	1,410	1,297	9%
Managed gross earned premium margin	7.0%	7.1%	(0.1 pts)

**Business operating profit** increased by USD 113 million to USD 1.4 billion driven by growth in gross earned premiums of the Farmers Exchanges and a one-time USD 86 million favorable impact as a result of a pension curtailment gain from changes to the Farmers pension plan, effective December 31, 2018.

**Management fees and other related revenues** of USD 2.9 billion increased USD 81 million, or 3 percent, due to growth in gross earned premiums of the Farmers Exchanges across most lines of business. **Management and other related expenses** of USD 1.5 billion grew 4 percent. **Other net income** of USD 44 million increased USD 84 million primarily due to the favorable impact of a pension curtailment gain from changes to the Farmers pension plan.

The managed gross earned premium margin was 7.0 percent compared with 7.1 percent for 2015.

## Operating and financial review (continued)

### **Farmers Re**

in USD millions, for the years ended December 31	2016	2015	Change
Gross written premiums and policy fees	1,587	2,145	(26%)
Net underwriting result	(51)	(26)	(93%)
Business operating profit	41	60	(32%)
Loss ratio	71.3%	70.1%	(1.2 pts)
Expense ratio	32.0%	31.1%	(0.9 pts)
Combined ratio	103.3%	101.2%	(2.2 pts)

**Business operating profit** decreased by USD 19 million to USD 41 million due to the deterioration of underwriting results compared with 2015.

**Gross written premiums and policy fees** decreased by USD 558 million to USD 1.6 billion, or by 26 percent, as a result of lower participation in the reinsurance agreements with the Farmers Exchanges. Participation in the All Lines quota share reinsurance agreement was reduced from 10 percent to 8 percent, effective December 31, 2015. The Auto Physical Damage (APD) quota share reinsurance agreement was terminated effective January 1, 2016.

The **net underwriting result** deteriorated by USD 24 million to a loss of USD 51 million reflected in the 2.2 percentage points deterioration in the combined ratio. The **loss ratio** increased by 1.2 percentage points as a result of higher catastrophe losses, mainly related to Texas storms. The **expense ratio**, based on ceded reinsurance commission rates payable to Farmers Exchanges, increased 0.9 percentage points due to the termination of the APD quota share reinsurance agreement which had a lower ceding commission rate.

### **Farmers Exchanges**

Financial information about the Farmers Exchanges, which are owned by their policyholders, is proprietary to the Farmers Exchanges, but is provided to support an understanding of the performance of Farmers Group, Inc. and Farmers Re.

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.

in USD millions, for the years ended December 31	2016	2015	Change
Gross written premiums	19,714	19,077	3%
Gross earned premiums	19,528	18,885	3%

**Gross written premiums** in the Farmers Exchanges increased by USD 637 million to USD 19.7 billion, or by 3 percent. Growth in most lines of business from continuing operations was partially offset by decreases in discontinued 21st Century operations.

Gross earned premiums in the Farmers Exchanges increased by USD 643 million to USD 19.5 billion, or by 3 percent.

### Other Operating Businesses

in USD millions, for the years ended December 31	2016	2015	Change
Business operating profit:			
Holding and Financing	(506)	(489)	(3%)
Headquarters	(230)	(200)	(15%)
Total business operating profit	(736)	(689)	(7%)

**Holding and Financing** business operating loss of USD 506 million increased by USD 17 million, or by 3 percent in U.S. dollar terms and 8 percent on a local currency basis. This was primarily driven by less favorable foreign exchange impacts, which were higher in 2015 partly as a result of the Swiss National Bank action to discontinue the link of the Swiss franc to the euro, partly offset by reductions in external debt expense.

**Headquarters** business operating loss of USD 230 million increased by USD 30 million compared with 2015, or by 15 percent in U.S. dollar terms and 18 percent on a local currency basis. Underlying expense savings were offset by several one-off items in both 2015 and 2016, including higher performance remuneration costs compared with 2015.

#### Non-Core Businesses

in USD millions, for the years ended December 31	2016	2015	Change
Business operating profit:			
Zurich Legacy Solutions	(56)	(29)	(95%)
Other run-off	11	102	(90%)
Total business operating profit	(45)	73	nm

**Zurich Legacy Solutions**, which comprise run-off portfolios managed with the intention of proactively reducing risk and releasing capital, reported a business operating loss of USD 56 million. The deterioration of USD 27 million arose from the strengthening of reserves relating to the review of the Ogden discount rate.

**Other run-off**, which largely comprises U.S. life insurance and annuity portfolios, reported a business operating profit of USD 11 million, a decrease of USD 91 million. This deterioration resulted from a higher release of long-term reserves in 2015 compared with 2016, as a consequence of a buy-back program for a variable annuity product in the U.S.

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## Consolidated income statements

in USD millions, for the years ended December 31	Notes	2016	2015
Revenues	NOTES	2010	2015
Gross written premiums		48,208	48,490
Policy fees		2,407	2,508
Gross written premiums and policy fees		50.615	50,998
Less premiums ceded to reinsurers		(7,843)	(8,078)
Net written premiums and policy fees		42.772	42.920
Net change in reserves for unearned premiums	10	(150)	(296)
Net earned premiums and policy fees	10	42.622	42.624
Farmers management fees and other related revenues	26	2,867	2,786
Net investment result on Group investments	6	7,048	7,507
Net investment income on Group investments	0	5,487	5,553
Net capital gains/(losses) and impairments on Group investments		1,561	1,953
Net investment result on unit-linked investments		13,613	6.238
Net gain/(loss) on divestments of businesses		(89)	10
Other income		1,182	1.383
Total revenues		67,243	60,548
Benefits, losses and expenses		0,72,13	00/0 10
Insurance benefits and losses, gross of reinsurance	10	35,488	36,076
Less ceded insurance benefits and losses	10	(4,682)	(5,330)
Insurance benefits and losses, net of reinsurance	10	30,806	30,746
Policyholder dividends and participation in profits, net of reinsurance	10	14,519	7,863
Underwriting and policy acquisition costs, net of reinsurance	10	8,538	9,061
Administrative and other operating expense	12	7,450	8,602
Interest expense on debt		425	432
Interest credited to policyholders and other interest		473	461
Total benefits, losses and expenses		62.212	57,165
Net income before income taxes		5,031	3,383
Income tax (expense)/benefit	17	(1,802)	(1,273)
attributable to policyholders	17	(304)	(110)
attributable to shareholders	17	(1,498)	(1,163)
Net income after taxes		3,229	2,110
attributable to non-controlling interests		319	252
attributable to shareholders		2,911	1.859

# Consolidated statements of comprehensive income

in USD millions, for the years ended December 31				
		Net unrealized		
		gains/(losses)		
	Net income	on available-		
	attributable	for-sale	Cash flow	
	to shareholders	investments	hedges	
2015				
Comprehensive income for the period	1,859	(1,573)	(12)	
Details of movements during the period				
Change (before reclassification, tax and foreign currency translation				
effects and after allocation to policyholders)		(42)	23	
Reclassification to income statement (before tax, foreign currency				
translation effects and allocation to policyholders)		(1,776)	(16)	
Deferred income tax (before foreign currency translation effects)		394	(15)	
Foreign currency translation effects		(150)	(4)	
2016				
Comprehensive income for the period	2,911	284	125	
Details of movements during the period				
Change (before reclassification, tax and foreign currency translation				
effects and after allocation to policyholders)		1,339	163	
Reclassification to income statement (before tax, foreign currency				
translation effects and allocation to policyholders)		(898)	(7)	
Deferred income tax (before foreign currency translation effects)		(38)	(23)	
Foreign currency translation effects		(119)	(8)	

	Total other			Total other			Total	
Cumulative	comprehensive			comprehensive	Total other	Total	comprehensive	
foreign	income		Net actuarial	income	comprehensive	comprehensive	income	
currency	recycled		gains/(losses)	not recycled	income	income	attributable to	Total
translation	through	Revaluation	on pension	through	attributable	attributable	non-controlling	comprehensive
adjustment	profit or loss	reserve	plans	profit or loss	to shareholders	to shareholders	interests	income
(2,081)	(3,666)	9	629	638	(3,028)	(1,169)	(130)	(1,299)
(2.004)	(2.400)	4.2	640	660	(4, 4,40)			
(2,081)	(2,100)	12	648	660	(1,440)			
	(1.702)				(1.702)			
	(1,792)	- (2)	(163)	(164)	(1,792)			
	(154)	(2)	(162) 142	(164)	216 (12)			
	(134)		142	142	(12)			
(646)	(237)	7	(993)	(986)	(1,223)	1,687	316	2,003
(0.10)	(237)	,	(333)	(300)	(1,223)	1,007	310	2,003
(787)	715	9	(1,612)	(1,603)	(888)			
				( )	(,,,,,			
141	(764)	_	_	_	(764)			
_	(62)	(2)	270	268	207			
_	(127)	_	349	349	222			

### Consolidated balance sheets

#### Assets

in USD millions, as of December 31	Notes	2016	2015
Investments			
Total Group investments	6	190,072	191,918
Cash and cash equivalents		7,129	7,849
Equity securities		16,240	19,194
Debt securities		140,181	137,685
Investment property		10,562	9,865
Mortgage loans		6,794	7,024
Other loans		9,146	10,282
Investments in associates and joint ventures		20	18
Investments for unit-linked contracts		125,907	126,728
Total investments		315,979	318,646
Reinsurers' share of reserves for insurance contracts	8	18,347	17,774
Deposits made under assumed reinsurance contracts		1,764	1,708
Deferred policy acquisition costs	11	17,796	17,677
Deferred origination costs	11	426	506
Accrued investment income <sup>1</sup>		1,653	1,727
Receivables and other assets	15	16,435	14,921
Deferred tax assets	17	1,470	1,454
Assets held for sale <sup>2</sup>		530	10
Property and equipment	13	953	1,140
Attorney-in-fact contracts	14	1,025	1,025
Goodwill	14	1,795	1,289
Other intangible assets	14	4,795	4,766
Total assets		382,967	382,642

Accrued investment income on unit-linked investments amounts to USD 91 million and USD 106 million as of December 31, 2016 and December 31, 2015, respectively.
 As of December 31, 2016, includes USD 456 million of assets reclassified based on agreements signed to sell businesses in Taiwan and Middle East (see note 5). In addition, assets held for sale includes land and buildings formerly classified as investment property and held for own use amounting to USD 67 million and USD 7 million, respectively.
 As of December 31, 2015, includes land and buildings formerly classified as investment property amounting to USD 10 million.

# Liabilities and equity

in USD millions, as of December 31	Notes	2016	2015
Liabilities			
Reserve for premium refunds		509	537
Liabilities for investment contracts	9	69,113	70,627
Deposits received under ceded reinsurance contracts		568	903
Deferred front-end fees		4,872	5,299
Reserves for insurance contracts	8	238,641	237,622
Obligations to repurchase securities		1,280	1,596
Accrued liabilities		3,033	2,835
Other liabilities	16	17,155	16,669
Deferred tax liabilities	17	4,562	4,482
Liabilities held for sale <sup>1</sup>		290	_
Senior debt	18	4,239	4,656
Subordinated debt	18	7,050	5,614
Total liabilities		351,311	350,841
Equity			
<b>Equity</b> Share capital	19	660	660
	19 19	660 14,427	660 14,666
Share capital			
Share capital Additional paid-in capital		14,427	14,666
Share capital Additional paid-in capital Net unrealized gains/(losses) on available-for-sale investments		14,427 2,753	14,666 2,469
Share capital Additional paid-in capital Net unrealized gains/(losses) on available-for-sale investments Cash flow hedges		14,427 2,753 418	14,666 2,469 294
Share capital Additional paid-in capital Net unrealized gains/(losses) on available-for-sale investments Cash flow hedges Cumulative foreign currency translation adjustment		14,427 2,753 418 (8,251)	14,666 2,469 294 (7,605)
Share capital Additional paid-in capital Net unrealized gains/(losses) on available-for-sale investments Cash flow hedges Cumulative foreign currency translation adjustment Revaluation reserve		14,427 2,753 418 (8,251) 235	14,666 2,469 294 (7,605) 228
Share capital Additional paid-in capital Net unrealized gains/(losses) on available-for-sale investments Cash flow hedges Cumulative foreign currency translation adjustment Revaluation reserve Retained earnings		14,427 2,753 418 (8,251) 235 19,122	14,666 2,469 294 (7,605) 228 18,934
Share capital Additional paid-in capital Net unrealized gains/(losses) on available-for-sale investments Cash flow hedges Cumulative foreign currency translation adjustment Revaluation reserve Retained earnings Shareholders' equity		14,427 2,753 418 (8,251) 235 19,122 29,363	14,666 2,469 294 (7,605) 228 18,934 29,646

<sup>&</sup>lt;sup>1</sup> As of December 31, 2016, includes USD 290 million of liabilities reclassified based on agreements signed to sell businesses in Taiwan and Middle East (see note 5).

### Consolidated statements of cash flows

in USD millions, for the years ended December 31	2016	2015
Cash flows from operating activities		
Net income attributable to shareholders	2,911	1,859
Adjustments for:		
Net (gain)/loss on divestments of businesses	89	(10)
(Income)/expense from equity method accounted investments	(3)	(8)
Depreciation, amortization and impairments of fixed and intangible assets	781	1,200
Other non-cash items	479	135
Underwriting activities:	15,113	6,868
Reserves for insurance contracts, gross	7,980	4,528
Reinsurers' share of reserves for insurance contracts	(977)	(1,981)
Liabilities for investment contracts	9,506	4,806
Deferred policy acquisition costs	(1,056)	(981)
Deferred origination costs	31	47
Deposits made under assumed reinsurance contracts	(46)	526
Deposits received under ceded reinsurance contracts	(326)	(77)
Investments:	(16,135)	(5,129)
Net capital (gains)/losses on total investments and impairments	(13,569)	(6,324)
Net change in derivatives	(243)	175
Net change in money market investments	(195)	1,415
Sales and maturities		
Debt securities	67,572	85,796
Equity securities	47,735	60,736
Other	7,780	6,997
Purchases		
Debt securities	(72,029)	(83,237)
Equity securities	(46, 139)	(62,423)
Other	(7,048)	(8,265)
Net changes in sale and repurchase agreements	(137)	237
Movements in receivables and payables	(1,230)	(54)
Net changes in other operational assets and liabilities	(1,244)	75
Deferred income tax, net	348	18
Net cash provided by/(used in) operating activities	970	5,192

in USD millions, for the years ended December 31	2016	2015
Cash flows from investing activities		
Additions to tangible and intangible assets	(715)	(678)
Disposals of tangible and intangible assets	59	60
(Acquisitions)/disposals of equity method accounted investments, net	(2)	88
Acquisitions of companies, net of cash acquired	(826)	(8)
Divestments of companies, net of cash divested	341	4
Dividends from equity method accounted investments	1	8
Net cash provided by/(used in) investing activities	(1,142)	(526)
Cash flows from financing activities		
Dividends paid	(1,897)	(3,045)
Other acquisitions and divestments related cash flows	_	(34)
Issuance of debt	3,066	490
Repayment of debt	(1,752)	(1,023)
Net cash provided by/(used in) financing activities	(583)	(3,612)
Foreign currency translation effects on cash and cash equivalents	(249)	(698)
Change in cash and cash equivalents <sup>1</sup>	(1,003)	355
Cash and cash equivalents as of January 1	8,883	8,528
Cash and cash equivalents as of December 31	7,880	8,883
of which:		
– Group investments	7,129	7,849
– Unit-linked	751	1,034
Other supplementary cash flow disclosures		
Other interest income received	4,882	5,134
Dividend income received	1,837	1,999
Other interest expense paid	(861)	(992)
Income taxes paid	(1,445)	(1,383)

<sup>&</sup>lt;sup>1</sup> The movement for the year ended December 31, 2016, includes USD 42 million of cash and cash equivalents reclassified to assets held for sale, which has been recognized in net changes in other operational assets and liabilities (see note 5).

# Cash and cash equivalents

in USD millions, as of December 31	2016	2015
Cash and cash equivalents comprise the following:		
Cash at bank and in hand	5,492	7,001
Cash equivalents	2,388	1,882
Total <sup>1</sup>	7,880	8,883

<sup>1</sup> Includes cash and cash equivalents for unit-linked contracts of USD 751 million and USD 1,034 million as of December 31, 2016 and 2015, respectively.

As of December 31, 2016 and 2015, cash and cash equivalents held to meet local regulatory requirements were USD 625 million and USD 709 million, respectively.

## Consolidated statements of changes in equity

in USD millions

		Additional
		paid-in
	Share capital	capital
Balance as of December 31, 2014	660	14,790
Issuance of share capital	_	
Dividends to shareholders	_	_
Share-based payment transactions	_	(124)
Change in ownership interests with no loss of control	_	_
Total comprehensive income for the period, net of tax	_	_
Net income	_	_
Net unrealized gains/(losses) on available-for-sale investments	_	_
Cash flow hedges	_	_
Cumulative foreign currency translation adjustment	_	_
Revaluation reserve	_	_
Net actuarial gains/(losses) on pension plans	_	_
Net changes in capitalization of non-controlling interests	_	_
Balance as of December 31, 2015	660	14,666
Balance as of December 31, 2015	660	14,666
Issuance of share capital	_	_
Dividends to shareholders	_	_
Share-based payment transactions	_	(257)
Treasury share transactions	_	18
Change in ownership interests with no loss of control	_	_
Total comprehensive income for the period, net of tax	_	_
Net income	_	_
Net unrealized gains/(losses) on available-for-sale investments	_	_
Cash flow hedges	_	_
Cumulative foreign currency translation adjustment	_	_
Revaluation reserve	_	_
Net actuarial gains/(losses) on pension plans	_	_
Net changes in capitalization of non-controlling interests	_	_
Balance as of December 31, 2016	660	14,427

<sup>&</sup>lt;sup>1</sup> Certain investment and insurance contracts sold by the Group contain benefit features for which the amount and timing of declaration and payment are at the discretion of the Group. Where that discretion has not been exercised, the total amount of undeclared funds surplus is included in equity. Mandated allocations related to unrealized results and earnings are included in policyholder liabilities and, upon declaration, discretionary bonuses are allocated to policyholders. The balances of unallocated gains and retained earnings after charging discretionary bonuses to policyholder liabilities amounted to USD 3,217 million and USD 2,965 million as of December 31, 2016 and 2015, respectively.

Net unrealized		Cumulative					
gains/(losses)		foreign					
on available-		currency				Non-	
for-sale	Cash flow	translation	Revaluation	Retained	Shareholders'	controlling	Total
investments <sup>1</sup>	hedges	adjustment	reserve <sup>1</sup>	earnings <sup>1</sup>	equity	interests	equity
4,042	306	(5,524)	218	19,228	33,721	2,481	36,202
	_	_	_	(2,883)	(2,883)	(162)	(3,045)
_		_	_	113	(11)	_	(11)
	_	_	_	(12)	(12)	_	(12)
(1,573)	(12)	(2,081)	9	2,487	(1,169)	(130)	(1,299)
_				1,859	1,859		
(1,573)					(1,573)		
_	(12)	_	_		(12)		
_	_	(2,081)	_		(2,081)		
_	_	_	9	_	9		
_	_	_	_	629	629		
_	_	_	_	_	_	(34)	(34)
2,469	294	(7,605)	228	18,934	29,646	2,155	31,801
2,469	294	(7,605)	228	18,934	29,646	2,155	31,801
_	_	_	_	_	_	_	_
_	_	_	_	(1,772)	(1,772)	(125)	(1,897)
_	_	_	_	40	(218)	_	(218)
_	_	_	-	_	18	-	18
_	_	_	-	3	3	-	3
284	125	(646)	7	1,918	1,687	316	2,003
_	_	_	_	2,911	2,911		
284	_	_	_	_	284		
_	125	_	_	_	125		
_	_	(646)	_	_	(646)		
_	_	_	7	_	7		
_	_	_	_	(993)	(993)		
_	_	_	_	_	_	(54)	(54)
2,753	418	(8,251)	235	19,122	29,363	2,292	31,656
,		,			-	•	•

Zurich Insurance Company Ltd (ZIC) and its subsidiaries (collectively the "Zurich Insurance Company Group" or "ZIC Group") is a provider of insurance products and related services. The ZIC Group mainly operates in Europe, North America, Latin America and Asia Pacific through subsidiaries, as well as branch and representative offices.

Zurich Insurance Company Ltd, is incorporated in Zurich, Switzerland. The registered office is Mythenquai 2, 8002 Zurich, Switzerland. Zurich Insurance Company Ltd is a wholly owned subsidiary of Zurich Insurance Group Ltd and together with its subsidiaries forms part of the Zurich Insurance Group.

On March 1, 2017, the Board of Directors of Zurich Insurance Company Ltd authorized these consolidated financial statements for issue. These financial statements will be submitted for approval to the Annual General Meeting of Shareholders to be held on March 29, 2017.

### 1. Basis of presentation

#### **General information**

The consolidated financial statements of the ZIC Group have been prepared in accordance with International Financial Reporting Standards (IFRS) and comply with Swiss law. Where IFRS does not contain clear guidance governing the accounting treatment of certain transactions, including those that are specific to insurance and reinsurance products, IFRS permits reference to another comprehensive body of accounting principles that uses a similar conceptual framework. The ZIC Group's accounting policies for insurance and reinsurance contracts are therefore based on those developed by the ZIC Group before the adoption of IFRS 4 in areas where IFRS 4 did not include specific requirements. Before the adoption of IFRS 4, the ZIC Group typically applied U.S. GAAP pronouncements issued by the Financial Accounting Standards Board (FASB) on insurance and reinsurance contracts. Any changes to such pronouncements subsequent to this adoption are not reflected in the ZIC Group's accounting policies. In case of business combinations, the ZIC Group may decide to maintain the local statutory treatment if this does not distort the fair presentation of the financial position of the ZIC Group. If significant, the impact of such cases would be described elsewhere in the notes to these consolidated financial statements.

The accounting policies applied by the reportable segments are the same as those applied by the ZIC Group. The ZIC Group accounts for inter-segment revenues and transfers as if the transactions were with third parties at current market prices. Dividends, realized capital gains and losses as well as gains and losses on the transfer of net assets, are eliminated within the segment, whereas all other intercompany gains and losses are eliminated at ZIC Group level. In the consolidated financial statements, inter-segment revenues and transfers are eliminated.

Disclosures under IFRS 4 'Insurance Contracts' and IFRS 7 'Financial Instruments: Disclosures' relating to the nature and extent of risks, and capital disclosures under IAS 1 'Presentation of Financial Statements' have been included in the risk review on pages 3 to 25, and they form an integral part of the consolidated financial statements.

The ZIC Group's consolidated balance sheets are not presented using a current/non-current classification. The following balances are generally considered to be current: cash and cash equivalents, deferred policy acquisition costs on general insurance contracts, accrued investment income, receivables, reserve for premium refunds, obligations to repurchase securities and accrued liabilities.

The following balances are generally considered to be non-current: equity securities, investment property, investments in associates and joint ventures, deferred policy acquisition costs on life insurance contracts, deferred tax assets, property and equipment, goodwill, other intangible assets and deferred tax liabilities.

The following balances are mixed in nature (including both current and non-current portions): debt securities, mortgage loans, other loans, reinsurers' share of reserves for insurance contracts, deposits made under assumed reinsurance contracts, deferred origination costs, other assets, reserves and investments for unit-linked contracts, liabilities for investment contracts, deposits received under ceded reinsurance contracts, deferred front-end fees, reserves for losses and loss adjustment expenses, reserves for unearned premiums, future life policyholder benefits, policyholder contract deposits and other funds, other liabilities, senior and subordinated debt, and assets and liabilities held for sale.

Maturity tables have been provided for the following balances: debt securities (table 6.4), derivative assets and derivative liabilities (tables 7.1 and 7.2), reserves for insurance contracts (tables 8.9a and 8.9b), liabilities for investment contracts (tables 9.3a and 9.3b), other financial liabilities (table 16.2) and outstanding debt (table 18.2).

Brazilian real

All amounts in the consolidated financial statements, unless otherwise stated, are shown in U.S. dollars, rounded to the nearest million with the consequence that the rounded amounts may not add to the rounded total in all cases. All ratios and variances are calculated using the underlying amounts rather than the rounded amounts.

Table 1 summarizes the principal exchange rates used for translation purposes. Net gains/(losses) on foreign currency transactions included in the consolidated income statements were USD 122 million and USD 246 million for the years ended December 31, 2016 and 2015, respectively. Foreign currency exchange forward and swap gains/(losses) included in these amounts were USD (132) million and USD (147) million for the years ended December 31, 2016 and 2015, respectively.

0.3077

0.2525

0.2886

0.3053

	Table 1						
Principal	USD per foreign currency unit	Consolidated	d balance sheets	Consc	Consolidated income		
exchange rates		at end-of-p	eriod exchange	statements	statements and cash flows		
			rates	at average exchange rates			
		12/31/16	12/31/15	12/31/16	12/31/15		
	Euro	1.0557	1.0862	1.1067	1.1109		
	Swiss franc	0.9845	0.9988	1.0153	1.0399		
	British pound	1.2346	1.4749	1.3550	1.5288		

# 2. New accounting standards and amendments to published accounting standards

# Standards, amendments and interpretations effective or early adopted as of January 1, 2016 and relevant for the ZIC Group's operations

Table 2.1 shows new accounting standards or amendments to and interpretations of standards relevant to the ZIC Group that have been implemented for the financial year beginning January 1, 2016, with no material impact on the ZIC Group's financial position or performance. In addition to the standards and amendments listed in table 2.1 the ZIC Group also incorporated amendments resulting from the IASB annual improvements project, which relate primarily to disclosure enhancements.

### Standard/ Interpretation

Table 2.1		
		Effective date
Amended Standar	rds	
IFRS 11	Accounting for Acquisitions of Interests in Joint Operations	January 1, 2016
IAS 1	Disclosure initiative	January 1, 2016
IAS 16/IAS 38	Clarification of Acceptable Methods of Depreciation and Amortisation	January 1, 2016

**Standards, amendments and interpretations issued that are not yet effective or adopted by the ZIC Group** Table 2.2 shows new accounting standards or amendments to and interpretations of standards relevant to the ZIC Group, which are not yet effective or adopted by the ZIC Group.

### Standard/ Interpretation

Table 2.2		
		Effective date
New Standards		
IFRS 15	Revenue from Contracts with Customers	January 1, 2018
IFRS 16	Leases	January 1, 2019
IFRS 9	Financial Instruments	January 1, 2021
<b>Amended Standards</b>		
IAS 7	Disclosure Initiative	January 1, 2017
IAS 12	Recognition of Deferred Tax Assets for Unrealised Losses	January 1, 2017
IFRS 2	Classification and Measurement of Share-based Payment Transactions	January 1, 2018
IFRS 4	Applying IFRS 9 with IFRS 4	January 1, 2018

#### IFRS 17 'Insurance contracts'

IFRS 17 'Insurance contracts' is expected to be issued in the first half of 2017. IFRS 17 will provide comprehensive guidance on accounting for insurance contracts and investment contracts with discretionary participation features. For general insurance contracts, IFRS 17 will introduce mandatory discounting of loss reserves expected to be paid in more than one year as well as risk adjustment, for which confidence level equivalent disclosure will be required. Further, IFRS 17 is expected to have a significant impact on accounting for life insurance contracts as well as on the presentation of insurance contract revenue in the financial statements.

In order to further evaluate the effects of adopting IFRS 17 in the consolidated financial statements, a joint IFRS 17 and IFRS 9 Group Implementation Program (Program) has been set up sponsored by ZIC Group Chief Financial Officer. A steering committee comprising senior management from Finance, Risk, Operations and Investment Management oversees the work performed by individual work streams, with a technical committee defining ZIC Group accounting policies and methodologies to be consistently applied throughout the ZIC Group and a transformation committee taking responsibility for systems implications and data flows. In 2017, the focus of the Program will be on preliminary impact analysis for significant legal entities as well as documentation of ZIC Group accounting policies.

In September 2016, the IASB issued an amendment to IFRS 4 introducing a temporary exemption from the adoption of IFRS 9 for reporting entities that have not previously applied any version of IFRS 9 and whose activities are predominantly related to insurance. Based on an analysis performed as of December 31, 2015, the ZIC Group is eligible to apply the temporary exemption as the predominance ratio reflecting the share of liabilities connected with insurance to total liabilities exceeds 90 percent. For the purpose of calculating the predominance ratio, liabilities connected with insurance include unit-linked investment contracts measured at fair value through profit or loss of USD 62.2 billion (see note 9) and subordinated funding liabilities that are considered to be part of regulatory capital of USD 5.6 billion (see note 18). The Program is proceeding on the assumption that the ZIC Group will apply the temporary exemption from the adoption of IFRS 9 and defer the implementation of IFRS 9 until a later date, however, no later than January 1, 2021.

#### IFRS 9 'Financial Instruments'

Upon implementation of IFRS 9, all equity securities and fund investments are expected to be measured at fair value through profit or loss. Similarly, a portion of debt instruments that are currently classified as available-for-sale will be classified as at fair value through profit or loss under IFRS 9 because the characteristics of the contractual cash flows from such instruments are not solely payments of principal and interest on the principal amount outstanding. We do not expect any significant impact on financial assets accounted for at amortized cost (such as mortgage and other loans) from the adoption of IFRS 9 classification requirements.

Furthermore, credit allowances for financial assets carried at amortized cost and debt securities measured at fair value, with changes in fair value recognized in other comprehensive income (OCI), are expected to increase due to the introduction of the expected credit loss methodology. Upon implementation of the revised standard IFRS 17 'Insurance Contracts', more assets may be classified at fair value through profit or loss under the fair value option.

The ZIC Group is currently assessing the impact of the application of both IFRS 17 and IFRS 9. As at the date of the publication of these consolidated financial statements it is not practicable to quantify the potential effect on the ZIC Group consolidated financial statements at the time when these standards are adopted.

#### IFRS 16 'Leases'

The ZIC Group expects IFRS 16 to impact the accounting of contracts where it acts as a lessee (and intermediate lessor), especially on real estate rental contracts. It is not expected that recognition of a right-of-use asset with a corresponding lease liability will have a material impact on the total amount of assets or liabilities or on net income.

Other standards, amendments and interpretations shown in table 2.2 are expected to have no or only an insignificant impact on the ZIC Group's financial position or performance.

### 3. Summary of significant accounting policies

Significant accounting policies applied in these consolidated financial statements are set out below. These policies have been consistently applied to all years presented unless otherwise stated. Other accounting policies are presented as part of the respective note disclosures.

#### a) Consolidation principles

The ZIC Group's consolidated financial statements include the assets, liabilities, equity, revenues, expenses and cash flows of Zurich Insurance Company Ltd and its subsidiaries. A subsidiary is an entity that Zurich Insurance Company Ltd either directly or indirectly controls. The results of subsidiaries acquired are included in the consolidated financial statements from the date of acquisition. The results of subsidiaries that have been divested during the year are included up to the date control ceased. All intra-Group balances, profits and transactions are eliminated in full.

Changes in ownership interests in a subsidiary that do not result in a change in control are recorded within equity.

Non-controlling interests are shown separately in equity, consolidated income statements, consolidated statements of comprehensive income and consolidated statements of changes in equity.

The consolidated financial statements are prepared as of December 31 based on individual company financial statements at the same date. In some cases information is included with a time lag of up to three months. The consequent effect on the ZIC Group's consolidated financial statements is not material.

#### b) Foreign currency translation and transactions

#### Foreign currency translation

Due to the ZIC Group's economic exposure to the U.S. dollar (USD), the presentation currency of the ZIC Group's consolidated financial statements is USD. Many ZIC Group companies have a different functional currency, being that of the respective primary economic environment in which these companies operate. Assets and liabilities are translated into the presentation currency at end-of-period exchange rates, while income statements and statements of cash flows are translated at average exchange rates for the period. The resulting foreign currency translation differences are recorded directly in other comprehensive income (OCI) as cumulative translation adjustment (CTA).

#### Foreign currency transactions and balances

Foreign currency transactions are translated into the functional currency using the spot exchange rate at the date of the transaction or, for practical reasons, a weighted average rate, if exchange rates do not fluctuate significantly. Foreign currency monetary items and foreign currency non-monetary items that are carried at fair value, are translated at end-of-period exchange rates. The resulting foreign currency translation differences are recorded in income, except for the following:

- → Foreign currency translation differences that are recognized in OCI in conjunction with the recognition of unrealized gains or losses on available-for-sale investments; and
- → Foreign currency translation differences arising on monetary items that form part of net investments in foreign operations as well as foreign currency translation differences arising from monetary items that are designated as hedging instruments in a qualifying net investment hedge relationship are included directly in OCI as CTA.

#### c) Common control business combination

A business combination of entities or businesses under common control is a business combination in which all of the combining entities or businesses are ultimately controlled by the same party or parties both before and after the business combination, and that control is not transitory. Business combinations between entities under common control are accounted for by applying the pooling of interest method. The acquirer (entity that receives the net assets or the equity interest) initially recognizes the assets and liabilities transferred at their previous carrying amounts in the accounts of the transferor at the date of transfer. Any difference between the consideration paid and the carrying value of the net assets received is recorded in shareholders' equity. Such business combinations are recorded as if they had taken place at the beginning of the earliest period presented (or the date that the entities were first under common control, if later), for the purpose of including the result of the transferee in the retained earnings of the acquirer.

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### d) Insurance contracts and investment contracts with discretionary participating features (DPF)

#### Classification

Contracts issued under which the Group accepts significant insurance risk and obligations arising from investment contracts with DPF are accounted for as insurance contracts.

The ZIC Group also issues products containing embedded options that entitle the policyholder to switch all or part of the current and future invested funds into another product issued by the ZIC Group. Where this results in the reclassification of an investment product to a product that meets the definition of an insurance contract, the previously held reserve and the related deferred origination costs are also reclassified and are accounted for in accordance with the accounting policy to be applied to the new product on a prospective basis. As a consequence, no gain or loss is recognized as a result of the reclassification of a contract from investment to insurance.

Once a contract has been classified as an insurance contract, no reclassification can subsequently be made.

#### **Premiums**

#### General insurance

Premiums from the sale of short-duration general insurance products are generally recorded when written and are normally recognized as revenue in relation to the insurance coverage provided. The unearned premium reserve represents the portion of the premiums written relating to the unexpired coverage period.

#### Life insurance

Premiums from traditional life insurance contracts, including participating contracts and annuity policies with life contingencies, are recognized as revenue when due from the policyholder. For single premium and limited pay contracts, premiums are recognized as revenue when due, with any excess profit deferred and recognized in income in a constant relationship to the insurance in-force or, for annuities, the amount of expected benefit payments.

Amounts collected as premiums from investment type insurance contracts such as universal life, unit-linked and unitized with-profits contracts are reported as deposits. Revenue from these contracts consists of policy fees for the cost of insurance, administration and surrenders during the period. Front-end fees charged to the customer at inception, particularly for single premium contracts, are deferred and recognized over the estimated life of the contracts on a straight-line basis. Regular fees charged to the customer periodically (monthly, quarterly or annually) either directly or by making a deduction from invested funds are billed in advance and recognized on a straight-line basis over the period in which the service is rendered. Fees charged at the end of the period are accrued over the service period as a receivable and are offset against the financial liability when charged to the customer.

Cash flows from certain universal life-type contracts in the ZIC Group's Spanish operations are recognized as gross written premiums and insurance benefits and losses and not as deposits.

#### Reserves for losses and loss adjustment expenses

Losses and loss adjustment expenses are charged to income as incurred. Reserves for losses and loss adjustment expenses represent estimates of future payments of reported and unreported claims for losses and related expenses, with respect to insured events that have occurred. Any changes in estimates are reflected in the results of operations in the period in which estimates are changed. The Group does not discount its loss reserves, other than for settled claims with fixed payment terms.

#### Reserves for life benefits

Future life policyholders' benefits represent the estimated future benefit liability for traditional life insurance policies and include the value of accumulated declared bonuses or dividends that have vested to policyholders.

The reserves for life benefits for participating traditional life insurance policies are calculated using a net level premium valuation method based on actuarial assumptions taking into account guaranteed mortality benefits and interest rates.

The reserves for life benefits for other traditional life insurance policies are calculated using a net level premium valuation method based on actuarial assumptions including mortality, persistency, expenses and investment return, plus a margin for adverse deviations. These assumptions are locked-in at inception and are regularly assessed as part of the liability adequacy testing over the period of the contract.

Policyholder contract deposits represent the estimated policy benefits for investment type insurance contracts invested in non unit-linked funds. This liability comprises the accumulation of premiums received, less charges, plus declared policyholder dividends.

Unrealized gains or losses arising on the revaluation of available-for-sale assets are recorded directly in OCI in accordance with the ZIC Group's accounting policy for such assets. Where these assets are related to life insurance, corresponding adjustments to the reserves for life benefits and related assets are also recognized directly in OCI.

Reserves for unit-linked contracts are based on the fair value of the financial instruments backing those contracts less any fees and assessments charged to the policyholders. The related assets for unit-linked insurance contracts are designated at fair value through profit or loss in order to reduce measurement inconsistencies.

For products containing guarantees in respect of minimum death benefits (GMDB), retirement income benefits (GRIB) and/or annuitization options (GAO), additional liabilities are recorded in proportion to the receipt of the contracted revenues which are subject to a loss adequacy test taking into account policyholder behavior and current market conditions.

For products managed on a dynamic basis, an option in IFRS 4 is used to measure the insurance liabilities using current financial and non-financial assumptions, to better reflect the way that these products are managed. Financial assets relating to these liabilities are designated at fair value through profit or loss.

#### Deferred acquisition costs (DAC)

Costs that vary with and are directly related to the acquisition of new and renewal business, including for example commissions and certain underwriting and policy issue expenses, are deferred and subsequently amortized over a defined period.

#### General insurance

DAC for general insurance contracts is amortized over the period in which the related premiums are earned.

#### Life insurance

DAC for traditional participating life insurance contracts is amortized based on estimated gross margins expected to be realized over the life of the contract. Estimated gross margins are updated for actual and anticipated future experience and discounted using the latest revised interest rate for the remaining benefit period. Resultant deviations are reflected in income.

DAC for other traditional life insurance and annuity contracts is amortized over the life of the contracts based on expected premiums. Expected premiums are estimated at the date of policy issue for application throughout the life of the contract, unless a premium deficiency subsequently occurs.

DAC for investment type insurance contracts such as universal life, unit-linked and unitized with-profits contracts is amortized based on estimated gross profits expected to be realized over the life of the contract. Estimated gross profits are updated for actual and anticipated future experience and discounted using either the interest rate in effect at the inception of the contracts or the latest revised interest rate for the remaining benefit period, depending on whether crediting is based on the policyholder's or on the reporting entity's investment performance. Resultant deviations are reflected in income.

Unamortized DAC for life insurance contracts accrues interest at a rate consistent with the related assumptions for reserves.

For traditional participating and investment type life insurance contracts, DAC is adjusted for the impact of unrealized gains/(losses) on allocated investments that are recorded in OCI.

#### Liability adequacy tests

Liability adequacy tests are performed annually for groupings of contracts determined in accordance with the ZIC Group's manner of acquiring, servicing and measuring the profitability of its insurance contracts.

#### General insurance

For general insurance contracts, unearned premiums are tested to determine whether they are sufficient to cover related expected losses, loss adjustment expenses, policyholder dividends, unamortized DAC and maintenance expenses, using current assumptions and considering anticipated investment returns. If a premium deficiency is identified, the DAC asset for the respective grouping of contracts is written down by the amount of the deficiency. If, after writing down the DAC asset to nil, a premium deficiency still exists for the respective grouping of contracts, then a premium deficiency reserve is established for the amount of the remaining deficiency.

#### Life insurance

For life insurance contracts, the carrying amount of the existing reserve for life benefits, including any deferred front-end fees, reduced by the unamortized balance of DAC or present value of future profits of acquired insurance contracts (PVFP), is compared with the reserve for life benefits, calculated using revised assumptions for actual and anticipated experience as of the valuation date. If a deficiency is identified, the DAC or PVFP for the respective grouping of contracts is written down by the amount of the deficiency. If, after writing down the DAC or PVFP to nil, a deficiency still exists for the respective grouping of contracts, the reserve for life benefits is increased by the amount of the remaining deficiency.

#### Reinsurance

The ZIC Group's insurance subsidiaries cede risk in the normal course of business in order to limit the potential for losses arising from certain exposures. Reinsurance does not relieve the originating insurer of its liability. Certain ZIC Group insurance companies assume reinsurance business incidental to their normal business.

Reinsurance contracts that do not transfer significant insurance risk are accounted for using the deposit method.

A deposit asset or liability is recognized based on the premium paid or received less any explicitly identified premiums or fees to be retained by the ceding company. Interest on deposits is accounted for using the effective interest rate method. Future cash flows are estimated to calculate the effective yield, and revenue and expense are recorded as interest income or expense. Reinsurance deposit assets or liabilities also include funds deposited or held by the ZIC Group, under assumed or ceded reinsurance contracts, respectively, when funds are retained by the reinsured under the terms of the contract.

Reinsurance is recorded gross in the consolidated balance sheet. Reinsurance assets include balances expected to be recovered from reinsurance companies for ceded paid and unpaid losses and loss adjustment expenses, ceded unearned premiums and ceded future life policy benefits. Amounts recoverable from reinsurers are estimated in a manner consistent with the liability associated with the reinsured policy.

Reinsurance assets are assessed for impairment on a regular basis and impairment losses, if any, are recorded in the same manner as for loans and receivables.

#### e) Liabilities for investment contracts (without DPF)

Investment contracts are those contracts that do not transfer significant insurance risk. The ZIC Group issues investment contracts without fixed terms (unit-linked) and investment contracts with fixed and guaranteed terms (fixed interest rate).

#### Unit-linked investment contracts

These represent portfolios maintained to meet the specific investment objectives of policyholders who bear the credit, market and liquidity risks related to the investments. The liabilities are carried at fair value, which is determined by reference to the underlying financial assets. Changes in fair value are recorded in income. The related assets for unit-linked investment contracts are designated at fair value through profit or loss in order to reduce measurement inconsistencies.

The costs of policy administration, investment management, surrender charges and certain policyholder taxes assessed against the policyholders' account balances are included in policy fee revenue.

#### Investment contracts at amortized cost

Liabilities for investment contracts with fixed and guaranteed terms are measured at amortized cost, using the effective interest rate method. Transaction costs are included in the calculation of the effective yield. As of each reporting date, the ZIC Group re-estimates the expected future cash flows and re-calculates the carrying amount of the financial liability by computing the present value of estimated future cash flows using the original effective interest rate for the financial liability. Any adjustment is immediately recognized in income.

#### Deferred origination costs (DOC)

The costs of acquiring new investment contracts with investment management services, such as commissions and other incremental expenses directly related to the issuance of each new contract, are capitalized and amortized in line with the revenue generated by providing investment management services. DOC is tested for recoverability annually.

#### f) Group investments excluding derivative financial instruments

Group investments are accounted for at either (a) fair value through OCI; (b) fair value through profit or loss; or (c) amortized cost.

The majority of ZIC Group investments are accounted for at fair value through OCI (available-for-sale financial assets) and include debt and equity securities as well as fund investments. Such assets are carried at fair value, with changes in fair value recognized in OCI, until the securities are either sold or impaired. Interest income determined using the effective interest method and dividend income from financial assets at fair value through OCI is included in net investment income. The cumulative unrealized gains or losses recorded in OCI are net of cumulative deferred income taxes, certain related life policyholder liabilities and deferred acquisition costs. When available-for-sale financial assets are sold, impaired or otherwise disposed of, the cumulative gains or losses are reclassified from OCI to income as net capital gains/(losses) on investments and impairments.

Group investments at fair value through profit or loss include debt and equity securities backing certain life insurance contracts with participation features, and financial assets evaluated on a fair value basis. The designation of these assets at fair value through profit or loss eliminates or significantly reduces a measurement inconsistency that would otherwise arise from measuring assets or recognizing the gains and losses on these assets on a different basis to the liabilities.

Group investments at amortized cost include debt securities for which the ZIC Group has the positive intention and ability to hold to maturity (held-to-maturity financial assets) as well as mortgage and other loans (loans and receivables). Such investments are carried at amortized cost using the effective interest rate method, less any charges for impairment. When an impairment is determined to have occurred, the carrying amount of held-to-maturity investments and loans and receivables is reduced through the use of an allowance account, and the movement in the impairment allowance is recognized in income as an impairment loss.

The ZIC Group recognizes regular purchases and sales of financial assets on the trade date, which is the date on which the ZIC Group commits to purchase or sell the asset.

Realized and unrealized gains and losses arising from changes in the fair value are recognized in income, within net capital gains/(losses) on investments and impairments, in the period in which they arise. Interest income determined using the effective interest method and dividend income from financial assets at fair value through profit or loss is included in net investment income.

Group investments include investment property accounted for at fair value through profit or loss. Rental income from investment property is recognized on a straight-line basis over the lease term and included in net investment income along with rental operating expenses for investment property recognized on an accrual basis.

Group investments include the following in cash and cash equivalents: cash on hand, deposits held at call with banks, cash collateral received and other highly liquid investments with maturities of three months or less from the date of acquisition that are readily convertible into cash and are subject to an insignificant risk of change in fair value. Cash and cash equivalents are stated at current redemption value.

#### Impairment of financial assets

The ZIC Group assesses at each reporting date whether there is objective evidence that loss events have occurred that negatively affect the estimated future cash flows of a financial asset or a group of financial assets. The evaluation of whether a financial asset is impaired requires significant judgment (see note 4).

#### g) Derivative financial instruments and hedge accounting

Derivative financial instruments, except those designated under a qualifying hedge relationship, are classified as held for trading assets or liabilities and carried at fair value on the balance sheet with changes in fair value recognized in income.

#### Derivative financial instruments that qualify for hedge accounting

Derivative financial instruments are used by the ZIC Group to economically hedge risks. In limited circumstances derivative financial instruments are designated as hedging instruments for accounting purposes in:

- → Fair value hedges which are hedges of the exposure to changes in the fair value of a recognized asset or liability;
- → Cash flow hedges, which are hedges of the exposure to variability in cash flows attributable to a particular risk either associated with a recognized asset or liability, or a highly probable forecast transaction that could affect profit or loss; or
- → Net investment hedges, which are hedges of a net investment in a foreign operation.

All hedge relationships are formally documented, including the risk management objectives and strategy for undertaking the hedge. At inception of a hedge and on an ongoing basis, the hedge relationship is formally assessed in order to determine whether the hedging instruments are expected (prospective assessment) and have been (retrospective assessment) highly effective in offsetting changes in fair values or cash flows of hedged items attributable to the hedged risk. If the qualifying criteria for the application of hedge accounting are no longer met, the hedge relationship is discontinued prospectively, in which case the hedging instrument and the hedged item are then subsequently reported independently in accordance with the respective accounting policy.

The accounting treatment of a qualifying hedge relationship is further described in note 7.

#### h) Attorney-in-fact contracts (AIF)

The AIF reflects the ability of the ZIC Group to generate future revenues based on the ZIC Group's relationship with the Farmers Exchanges, which are managed but not owned by Farmers Group, Inc. (FGI), a wholly owned subsidiary of the Zurich Insurance Group. In determining that these relationships have an indefinite useful life, the ZIC Group considered the organizational structure of inter-insurance exchanges, under which subscribers exchange contracts with each other and appoint an attorney-in-fact to provide non-claims management services, and the historical AIF between FGI and the Farmers Exchanges. The AIF is tested for impairment at least annually.

#### i) Goodwill

Goodwill on the acquisition of subsidiaries is capitalized and tested for impairment annually, or more frequently if impairment indicators are observed. For the purpose of impairment testing, goodwill is allocated to cash generating units (CGUs) based on the level at which management monitors operations and makes decisions relating to the continuation or disposal of assets and operations. If goodwill has been allocated to a CGU and an operation within that unit is disposed of, the carrying amount of the operation includes attributable goodwill when determining the gain or loss on disposal.

#### j) Intangible assets

All intangible assets have finite lives and are carried at cost less accumulated amortization and impairments. Such assets are generally amortized using the straight-line method over their useful lives and reviewed for impairment at least annually or whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

#### Present value of future profits from acquired insurance contracts (PVFP)

An intangible asset representing the PVFP arises from the acquisition of life insurance businesses. Such an asset is amortized over the expected life of the acquired contracts, following the same rules as for DAC. The carrying value of the PVFP asset is tested periodically for impairment as part of the liability adequacy test for insurance contracts.

#### Distribution agreements

Distribution agreements may have useful lives extending up to 30 years which are estimated based on the period of time over which they are expected to provide economic benefits, but for no longer than the contractual term, after taking into account all economic and legal factors such as stability of the industry, competitive position and the period of control over the assets.

#### Software

Costs associated with research and maintenance of internally developed computer software are expensed as incurred. Costs incurred during the development phase are capitalized. Software under development is tested for impairment annually.

Acquired computer software licenses are capitalized on the basis of the costs incurred to acquire and bring the specific software into use.

The useful lives of computer software licenses and capitalized internal software development costs generally range from three to five years. In limited circumstances, capitalized software development costs may be amortized over a period of up to ten years, taking into account the effects of obsolescence, technology, competition and other economic and legal factors.

#### k) Other fees and commission income

Revenues from investment management and distribution fees are based on contractual fee arrangements applied to assets under management and recognized as earned when the service has been provided. For practical purposes, the ZIC Group recognizes these fees on a straight-line basis over the estimated life of the contract.

#### I) Employee benefits

#### Share-based compensation and cash incentive plans

The ZIC Group operates long-term incentive plans that are accounted for as cash-settled share-based compensation plans. The fair value of these incentive plans is determined at the grant date and is recognized as an expense in income over the vesting period, with a corresponding increase recorded within other liabilities for employee benefit plans.

Subsequently, the fair value of the liability is re-measured at the end of each reporting period with any changes in fair value recognized in profit or loss for the period.

#### Retirement benefits

Contributions to defined contribution plans are recorded as an expense in the period in which the economic benefit from the employees' service was received.

Defined benefit plan obligations and contributions are determined annually by qualified actuaries using the projected unit credit method. The ZIC Group's expense relating to these plans is accrued over the employees' service periods based on the actuarially determined cost for the period. Net interest and service costs are determined using the spot rate approach. Actuarial gains and losses are recognized, in full in the period in which they occur, in OCI. Past service costs, which result from plan amendments and curtailments, are recognized in income on the earlier of the date on which the plan amendment or curtailment occurs (which is the date from which the plan change is effective) and the date on which a constructive obligation arises. Settlement gains or losses are recognized in income when the settlement occurs.

#### Other post-employment benefits

Other post-employment benefits, such as medical care and life insurance, are also provided for certain employees and are primarily funded internally. Similar to defined benefit plans, the cost of such benefits is accrued over the service period of the employees based on the actuarially determined cost for the period.

### 4. Critical accounting judgments and estimates

The application of certain accounting policies necessitates critical accounting estimates that involve discretionary judgments and the use of assumptions which are susceptible to change due to inherent uncertainties. Because of the uncertainties involved, actual results could differ significantly from the assumptions and estimates made by management. Such critical accounting estimates are of significance to insurance reserves and deferred acquisition costs, the determination of fair value for financial assets and liabilities, impairment charges, deferred taxes and employee benefits.

### a) Reserves for insurance contracts and deferred acquisition costs

#### General Insurance

The ZIC Group is required to establish reserves for payment of losses and loss adjustment expenses that arise from the ZIC Group's general insurance products and the run-off of its former third party reinsurance operations. These reserves represent the expected ultimate cost to settle claims occurring prior to, but still outstanding as of, the balance sheet date. The ZIC Group establishes its reserves by product line, type and extent of coverage and year of occurrence. There are two categories of loss reserve: reserves for reported losses and reserves for incurred but not reported (IBNR) losses. Additionally, reserves are held for loss adjustment expenses, which contain the estimated legal and other expenses expected to be incurred to finalize the settlement of the losses.

The ZIC Group's reserves for reported losses and loss adjustment expenses are based on estimates of future payments to settle reported claims. The ZIC Group bases such estimates on the facts available at the time the reserves are established. These reserves are generally established on an undiscounted basis to recognize the estimated costs of bringing pending claims to final settlement. The reserve calculation takes into account inflation, as well as other factors that can influence the amount of reserves required, some of which are subjective and some of which are dependent on future events. In determining the level of reserves, the ZIC Group considers historical trends and patterns of loss payments, pending levels of unpaid claims and types of coverage. In addition, court decisions, economic conditions and public attitudes may affect the ultimate cost of settlement and, as a result, the ZIC Group's estimation of reserves. Between the reporting and final settlement of a claim circumstances may change, which may result in changes to established reserves. Items such as changes in law and interpretations of relevant case law, results of litigation, changes in medical costs, as well as costs of vehicle and home repair materials and labor rates can substantially impact ultimate settlement costs. Accordingly, the ZIC Group reviews and re-evaluates claims and reserves on a regular basis. Amounts ultimately paid for losses and loss adjustment expenses can vary significantly from the level of reserves originally set.

The ZIC Group establishes IBNR reserves, to recognize the estimated cost of losses for events which have already occurred but which have not yet been notified. These reserves are established to recognize the estimated costs required to bring such claims to final settlement. As these losses have not yet been reported, the ZIC Group relies upon historical information and statistical models, based on product line, type and extent of coverage, to estimate its IBNR liability. The ZIC Group also uses reported claim trends, claim severities, exposure growth, and other factors in estimating its IBNR reserves. These reserves are revised as additional information becomes available and as claims are actually reported.

The time required to learn of and settle claims is an important consideration in establishing the ZIC Group's reserves. Short-tail claims, such as those for automobile and property damage, are normally reported soon after the incident and are generally settled within months of the incident. Long-tail claims, such as bodily injury, pollution, asbestos and product liability, can take years to develop and additional time to settle. For these claims, information concerning the event, such as the required medical treatment for bodily injury claims and the required measures to clean up pollution, may not be readily available. Accordingly, the reserving analysis of long-tail lines of business is generally more difficult and subject to greater uncertainties than for short-tail claims.

Since the ZIC Group does not establish reserves for catastrophes in advance of the occurrence of such events, these events may cause volatility in the levels of its incurred losses and reserves, subject to the effects of reinsurance recoveries. This volatility may also be contingent upon political and legal developments after the occurrence of the event.

The ZIC Group uses a number of accepted actuarial methods to estimate and evaluate the amount of reserves recorded. The nature of the claim being reserved for and the geographic location of the claim influence the techniques used by the ZIC Group's actuaries. Additionally, the ZIC Group's Corporate Center actuaries perform periodic reserve reviews of the ZIC Group's businesses throughout the world. Management considers the results of these reviews and adjusts its reserves for losses and loss adjustment expenses, where necessary.

#### Life insurance

The reserves for future life policyholder benefits and policyholder contract deposits and other funds contain a number of assumptions regarding mortality or longevity, lapses, surrenders, expenses, discount rates and investment returns. These assumptions can vary by country, year of policy issuance and product type and are determined with reference to past experience adjusted for new trends, current market conditions and future expectations. As such the liabilities for future life policyholder benefits and policyholder contract deposits may not represent the ultimate amounts paid out to policyholders. For example:

- → The estimated number of deaths determines the value of the benefit payments. The main source of uncertainty arises because of the potential for pandemics and wide-ranging lifestyle changes, such as changes in eating, smoking and exercise habits, which could result in earlier deaths for age groups in which the ZIC Group has significant exposure to mortality risk.
- → For contracts that insure the risk of longevity, such as annuity contracts, an appropriate allowance is made for people living longer. Continuing improvements in medical care and social conditions could result in further improvements in longevity in excess of those allowed for in the estimates used to determine the liability for contracts where the ZIC Group is exposed to longevity risk.
- → Under certain contracts, the ZIC Group has offered product guarantees (or options to take up product guarantees), including fixed minimum interest rate or mortality rate returns. In determining the value of these options and/or benefits, estimates have been made as to the percentage of contract holders that may exercise them. Changes in investment conditions could result in significantly more contract holders exercising their options and/or benefits than has been assumed.
- → Estimates are made as to future investment income arising from the assets backing long-term insurance contracts. These estimates are based on current market returns as well as expectations about future economic and financial developments.
- → Assumptions are determined with reference to current and historical client data, as well as industry data. Interest rate assumptions reflect expected earnings on the assets supporting the future policyholder benefits. The information used by the ZIC Group's qualified actuaries in setting such assumptions includes, but is not limited to, pricing assumptions, available experience studies and profitability analysis.

Deferred policy acquisition costs and PVFP are deferred only to the extent that they are recoverable from future policy income which also depends on the above assumptions. Recoverability is tested at contract inception and subsequently on a regular basis with reference to current expectations of future profits or margins.

See note 8 for further information on reserves for insurance contracts and note 11 for deferred policy acquisition costs. Also refer to the insurance risk section of the Risk review.

#### b) Fair value measurement

In determining the fair values of financial debt instruments and equity instruments traded on exchanges and in OTC markets, the ZIC Group makes extensive use of independent, reliable and reputable third party pricing providers and only in rare cases places reliance on prices that are derived from internal models.

In addition, the ZIC Group's policy is to ensure that independently sourced prices are developed by making maximum use of current observable market inputs derived from orderly transactions and by employing widely accepted valuation techniques and models. When third party pricing providers are unable to obtain adequate observable information for a particular financial instrument, the fair value is determined either by requesting selective non-binding broker quotes or by using internal valuation models.

Valuations can be subject to significant judgment especially when the fair value is determined based on at least one significant unobservable input parameter; such items are classified within level 3 of the fair value hierarchy. See notes 6, 7 and 23 for further information regarding the estimate of fair value.

#### c) Impairment of assets

#### Financial assets

A financial asset is considered impaired if there is objective evidence of impairment as a result of one or more occurred loss events that have an impact on the estimated future cash flows of the financial asset.

The evaluation of whether an available-for-sale debt security is impaired requires analysis of the credit standing of a particular issuer and involves management judgment. When assessing impairment of available-for-sale debt securities, the ZIC Group places emphasis on issuer specific factors, such as significant financial difficulty, default or delinquency on interest or principal payments. A credit rating downgrade, worsened liquidity or decline in fair value below the weighted-average cost is not by itself considered a loss event, but rather incorporated in the impairment analysis along with other available information.

The ZIC Group determines that there is objective evidence of impairment of an available-for-sale equity security, if at the reporting date:

- → Its fair value is below the weighted-average cost by an amount significantly exceeding the volatility threshold determined quarterly for the respective equity market (such as North America, Asia Pacific, UK, Switzerland and other European countries), or
- → Its fair value has been below the weighted-average cost for a prolonged period of 24 consecutive months or longer.

#### Goodwill and attorney-in-fact contracts (AIF)

Goodwill is allocated to a cash generating unit (CGU) as outlined in note 3. Based on consideration of ZIC Group organizational changes, the ZIC Group has redefined the CGUs according to regions, separating Property and Casualty (P&C) and Life businesses (see note 27). The CGUs under the new structure which carry the majority of goodwill and AIF are presented in table 4.1.

For goodwill impairment testing, the recoverable amount is the higher of its fair value less costs to sell and its value-in-use.

Fair value is determined, considering quoted market prices, current share values in the market place for similar publicly traded entities, and recent sale transactions of similar businesses.

Value-in-use is determined using the present value of estimated future cash flows expected to be generated from the CGU. Cash flow projections are based on financial budgets, which are approved by management, typically covering a three-year period or, if appropriate and adequately justified, a longer period, which may be necessary to more accurately represent the nature of the cash flows used to test the goodwill. Cash flows beyond this period are extrapolated using, amongst others, estimated perpetual growth rates, which typically do not exceed the expected inflation of the geographical areas in which the cash flows supporting the goodwill are generated. If cash flows are generated in different geographical areas with different expected inflation rates, weighted averages are used. The discount rates applied reflect the respective risk free interest rate adjusted for the relevant risk factors to the extent they have not already been considered in the underlying cash flows.

The discount rates used in the recoverable amount calculations for developed markets are based on the capital asset pricing model and consider government bond rates which are further adjusted for equity risk premium, appropriate beta and leverage ratio. In emerging markets, discount rates are based on the U.S. dollar discount rate taking into account inflation differential expectations and country risks. All input factors to the discount rates are based on observable market data.

The recoverable amounts of AIF contracts and goodwill are determined on the basis of value-in-use calculations. These calculations use cash flow projections based on business plans which are approved by management and typically cover a three-year period. The basis for determining the values assigned to the key assumptions are current market trends and earnings projections.

Table 4.1 sets out for the major CGUs the applied discount rates and the perpetual nominal growth rates beyond the projection period which are dependent on country specific growth rate and inflation expectations as of the date of valuation as well as the value of goodwill and AIF as of December 31, 2016. No impairment was identified.

**Discount and** perpetual growth rates for goodwill and AIF for major CGUs

Table 4.1				
				Perpetual nominal
				growth
		in USD	Discount rates in %	rate in %
	Business	millions	2016¹	2016 <sup>2</sup>
Farmers	Farmers	1,845	9.1	_
North America	P&C	354	7.5	2.3
Europe, Middle East and Africa	P&C	339	6.7	1.8
Asia Pacific	P&C	46	7.1	2.1
Asia Pacific	Life	163	7.5	2.3
Latin America	P&C	69	15.1	5.4

Sensitivity tests have been performed on goodwill and AIF, and typically comprise of an analysis for either a decrease in cash flows of up to 30 percent, a decrease in the perpetual growth rate of up to 1.0 percentage point or an increase in the discount rate of up to 3.5 percentage points in order to capture potential future variations in market conditions. The recoverability of the Latin America P&C CGU goodwill is very sensitive to key assumptions such as macroeconomic conditions, industry and market growth considerations, and cost factors in particular in Brazil and Mexico.

#### Distribution agreements

A qualitative analysis has been performed on distribution agreements, typically comprised of an analysis of the current financial performance, any change in the conditions in the agreement and environment that would indicate an impairment. No impairment was identified.

See notes 3, 6, 13, 14 and 15 for further information on impairment of assets.

#### d) Deferred taxes

Deferred tax assets are recognized if sufficient future taxable income, including income from the reversal of existing taxable temporary differences and available tax planning strategies, is available for realization. The utilization of deferred tax assets arising from temporary differences between the ZIC Group's carrying amounts of assets and liabilities and their tax bases depends on the generation of sufficient taxable profits in the period in which the underlying asset or liability is recovered or settled. The utilization of deferred tax assets arising from unused tax losses or tax credits depends on the generation of sufficient taxable profits before the unused tax losses or tax credits expire. As of each balance sheet date, management evaluates the recoverability of deferred tax assets and, if it is considered probable that all or a portion of the deferred tax asset will not be utilized, then a valuation allowance is recognized.

See note 17 for further information on deferred taxes.

#### e) Employee benefits

The ZIC Group provides defined benefit plans and other post-employment plans. In assessing the ZIC Group's liability for these plans, critical judgments include estimates of mortality rates, rates of employment turnover, disability, early retirement, discount rates, future salary and pension increases and increases in long-term healthcare costs. Discount rates for significant plans are based on a yield curve approach. The ZIC Group sets the discount rate by creating a hypothetical portfolio of high quality corporate bonds for which the timing and amount of cash outflows approximate the estimated payouts of the defined benefit plan. These assumptions may differ from actual results due to changing economic conditions, higher or lower withdrawal rates or longer or shorter life spans of participants. These differences may result in variability of pension income or expense recorded in future years.

See note 20 for further information on employee benefits.

Discount rates used in 2015 are no longer applicable due to the change in CGU definition (see note 4 of the consolidated financial statements 2015). Perpetual growth rates used in 2015 are no longer applicable due to the change in CGU definition (see note 4 of the consolidated financial statements 2015).

### 5. Acquisitions and divestments

#### **Transactions in 2016**

#### Acquisitions

#### Cover-More Group Limited

On December 11, 2016, the ZIC Group entered into a scheme implementation agreement with Cover-More Group Limited (Cover-More) to acquire Cover-More, an ASX listed provider of travel insurance and assistance solutions via a scheme of arrangement (Scheme). Under the transaction, the ZIC Group will acquire 100% of the issued share capital of Cover-More for AUD 1.95 cash per share, with the consideration valuing Cover-More's fully diluted equity at approximately USD 536 million. The final cash consideration payable to Cover-More shareholders under the Scheme will be reduced by the amount of any interim dividend or special dividend which is announced, declared, or paid by Cover-More prior to June 30, 2017. The implementation of the Scheme is subject to customary conditions including shareholder and court approvals, and is expected to be completed in the second quarter of 2017.

#### Macquarie Life Insurance Business

On October 1, 2016, the ZIC Group completed the acquisition of a part of the Australian Macquarie Life insurance business from the Macquarie Group, a financial group based in Australia. The transaction involved the transfer of Macquarie's retail life insurance protection business together with its assets, liabilities and employees for a total consideration of approximately USD 307 million subject to a price adjustment mechanism. Based on the initial purchase accounting the net tangible assets acquired amounted to USD 109 million and identifiable intangible assets, net of related deferred tax, amounted to USD 49 million consisting of the present value of profits of acquired insurance contracts. Goodwill amounted to USD 148 million and mainly reflects future growth opportunities.

#### MAA Takaful Berhad

On June 30, 2016, the ZIC Group completed the acquisition of 100 percent of MAA Takaful Berhad, a family and general takaful operator incorporated in Malaysia, from MAA Group Berhad (MAA) and Solidarity Group Holding BSC (Closed), for a total purchase price of approximately USD 118 million of which an amount of approximately USD 30 million will be retained by the ZIC Group for three years. Based on the initial purchase accounting the net tangible assets acquired amounted to USD 27 million and identifiable intangible assets, net of related deferred tax, amounted to USD 30 million consisting of the present value of profits of acquired takaful contracts. Goodwill amounted to USD 62 million and mainly reflects the takaful business know-how and future growth opportunities.

#### Rural Community Insurance Services

On March 31, 2016, the ZIC Group completed the acquisition of 100 percent of Rural Community Insurance Agency, Inc. (RCIA) and its fully owned subsidiary Rural Community Insurance Company (RCIC) from Wells Fargo & Company (Wells Fargo). RCIA and RCIC are collectively known as Rural Community Insurance Services (RCIS), a provider of agricultural insurance in the U.S. through a federal crop insurance program and other private crop insurance products.

The final purchase price amounted to USD 692 million. Based on the initial purchase accounting, the fair value of net tangible assets acquired amounted to USD 238 million and identifiable intangible assets estimated at USD 101 million which mainly consists of the valuation of agent relationships. Residual goodwill amounted to USD 354 million, which will be deductible for tax purposes. It represents the value of the RCIS workforce and management, the capabilities and related know-how of RCIS to participate in the federal crop insurance program and future growth opportunities. A 25 percent quota share reinsurance contract was in place between RCIS and the ZIC Group prior to completion of the transaction. The ZIC Group has assessed the fair value and the classification of assets and liabilities. Certain balances are presented net in receivables and other assets, as these balances will be settled on a net basis.

Table 5.1 shows the main balance sheet line items as of the acquisition date, representing the preliminary fair value of RCIS net tangible assets acquired, intangible assets and goodwill, excluding the impact of the 25 percent quota share reinsurance contract.

RCIS preliminary Balance Sheet as of the acquisition date

Table 5.1	
in USD millions, as of March 31, 2016	Total
Cash and cash equivalents	183
Reinsurers' share of reserves for insurance contracts	235
Receivables and other assets <sup>1</sup>	2,131
Deferred tax assets	8
Property and equipment	12
Goodwill	354
Other intangible assets	101
Assets acquired	3,022
Reserves for insurance contracts	289
Accrued liabilities	4
Other liabilities	2,036
Liabilities acquired	2,329
Total acquisition costs	692

<sup>&</sup>lt;sup>1</sup> Includes USD 980 million of balances which will be settled net.

Table 5.2 shows the result for the nine months since the acquisition date as included in the ZIC Group consolidated income statement for the year ended December 31, 2016. Furthermore, the table shows information relating to the full twelve months period to December 31, 2016. This information is based on the local statutory accounts which includes a reinsurance contract with the ZIC Group which was eliminated in the consolidated figures.

The seasonal nature of crop insurance results in the majority of gross written premiums being written in the first six months of each year, however, the premiums are then earned during the second six months of that year.

# Income statement information

Table 5.2	
in USD millions, information for the nine months from acquisition ended December 31, 2016	Total
Gross written premiums	1,702
Net income after taxes	122
in USD millions, local statutory information for the twelve months ended December 31, 2016	Total
Gross written premiums	1,676
Net income after taxes	24

For the year ended December 31, 2016, the ZIC Group incurred transaction related costs of USD 1 million included in other administrative expenses which have been excluded from BOP. For the year ended December 31, 2015, USD 6 million transaction related costs were included in other administrative expenses and were excluded from BOP.

#### Kono Insurance Limited

On January 29, 2016, the ZIC Group completed the acquisition of 100 percent of Kono Insurance Limited, a general insurance company incorporated in Hong Kong, for approximately USD 27 million. Based on the final purchase accounting, net tangible assets acquired amounted to USD 13 million and identifiable intangible assets amounted to USD 1 million. Residual goodwill of USD 13 million reflects expected future growth opportunities.

#### Loss of control

On February 12, 2016, the ZIC Group entered into a forward sale agreement, for its controlling interest of a UK based distributor of the Global Life business, for a fixed sales price of USD 1 to be completed by March 1, 2020 at the latest. Therefore, the ZIC Group is deemed to have lost control of this business from an accounting perspective and has derecognized the assets and liabilities at their carrying amount. A USD 47 million gain has been recorded within net gain/(loss) on divestments of businesses.

#### Divestments

During the nine months ended September 30, 2016, the ZIC Group entered into various agreements to sell its insurance operations in Morocco, Taiwan, South Africa and the Middle East, mainly comprising of general insurance operations.

On December 31, 2016, the sale of the insurance operations in the Middle East and Taiwan were still subject to customary closing conditions (see note 29). The respective assets and liabilities were reclassified as held for sale as of June 30, 2016. As of December 31, 2016, the total assets and total liabilities reclassified were USD 456 million and USD 290 million, respectively. These transactions are expected to close in the first quarter of 2017.

On December 7, 2016, the ZIC Group closed the sale of its insurance business in South Africa to Fairfax Financial Holdings Limited. The contractually agreed sales price amounted to approximately USD 128 million and is subject to a purchase price adjustment. A pre-tax loss of USD 200 million has been recorded within net gain/(loss) on divestments of businesses.

On November 3, 2016, the ZIC Group closed the sale of its insurance business in Morocco to Allianz Group. The contractually agreed sales price amounted to approximately USD 290 million and is subject to a purchase price adjustment. A pre-tax gain of USD 101 million has been recorded within net gain/(loss) on divestments of businesses.

#### **Transactions in 2015**

In September 2015, the ZIC Group increased its shareholding in Zurich Insurance Company South Africa Limited (ZICSA) from 84.05 percent to 100 percent for a total consideration of approximately USD 34 million. Subsequently the ZICSA shares were delisted from the Johannesburg Stock Exchange.

### 6. Group investments

Group investments are those for which the ZIC Group bears part or all of the investment risk. They also include investments related to investment contracts with discretionary participation features.

# Net investment result on Group investments

Table 6.1								
in USD millions, for the years				Net capital				
ended December 31	Net	investment	ga	ins/(losses)	Net	investment		of which
		income	and ir	npairments		result		mpairments
	2016	2015	2016	2015	2016	2015	2016	2015
Cash and cash equivalents	12	32	1	(1)	13	31	_	
Equity securities	489	467	545	648	1,034	1,115	(168)	(162)
Debt securities	4,034	4,095	789	1,011	4,823	5,106	(12)	(4)
Investment property	547	512	408	131	956	642	_	
Mortgage loans	222	244	2	4	224	249	2	4
Other loans	423	454	17	2	440	456	(1)	(2)
Investments in associates								
and joint ventures	3	8	3	31	6	39	-	_
Derivative financial								
instruments	_	-	(204)	127	(204)	127	-	
Investment result, gross,								
for Group investments	5,731	5,813	1,561	1,953	7,291	7,766	(179)	(163)
Investment expenses								
for Group investments <sup>1</sup>	(243)	(259)	-	-	(243)	(259)	-	_
Investment result, net,								
for Group investments	5,487	5,553	1,561	1,953	7,048	7,507	(179)	(163)

<sup>&</sup>lt;sup>1</sup> Rental operating expenses for investment property included in investment expenses for Group investments amounted to USD 88 million and USD 81 million for the years ended December 31, 2016 and 2015, respectively.

#### Details of Group investments by category

Table 6.2				
as of December 31		2016		2015
	USD millions	% of total	USD millions	% of total
Cash and cash equivalents	7,129	3.8	7,849	4.1
Equity securities:				
Fair value through profit or loss	3,359	1.8	3,519	1.8
Available-for-sale	12,881	6.8	15,675	8.2
Total equity securities	16,240	8.5	19,194	10.0
Debt securities:				
Fair value through profit or loss	5,672	3.0	6,180	3.2
Available-for-sale	131,967	69.4	128,137	66.8
Held-to-maturity	2,543	1.3	3,369	1.8
Total debt securities	140,181	73.8	137,685	71.7
Investment property	10,562	5.6	9,865	5.1
Mortgage loans	6,794	3.6	7,024	3.7
Other loans	9,146	4.8	10,282	5.4
Investments in associates and joint ventures	20	0.0	18	0.0
Total Group investments	190,072	100.0	191,918	100.0

Investments (including cash and cash equivalents) with a carrying value of USD 6,809 million and USD 6,492 million are held to meet local regulatory requirements as of December 31, 2016 and 2015, respectively.

<b>Details of debt</b>
securities
by category

Table 6.3								
in USD millions, as of December 31	Fair va	lue through						
	ķ	profit or loss	Availa	able-for-sale	Held-to-maturity		Total	Total
	2016	2015	2016	2015	2016	2015	2016	2015
Debt securities:								
Government and								
supra-national bonds	3,041	3,373	60,941	56,414	2,342	3,146	66,325	62,932
Corporate securities	2,144	2,246	54,355	54,021	200	223	56,699	56,491
Mortgage and asset-backed								
securities	487	561	16,671	17,695	_	_	17,158	18,256
Redeemable preferred stock	_	_	-	6	_	_	_	6
Total debt securities	5,672	6,180	131,967	128,137	2,543	3,369	140,181	137,685

# Debt securities maturity schedule

Table 6.4								
in USD millions, as of December 31	Fair va	lue through						
	р	rofit or loss	Availa	able-for-sale	Held	-to-maturity	Total	Total
	2016	2015	2016	2015	2016	2015	2016	2015
Debt securities:								
< 1 year	561	501	8,398	6,787	367	788	9,325	8,076
1 to 5 years	1,283	1,621	36,716	37,986	259	544	38,258	40,150
5 to 10 years	1,106	1,064	32,573	31,145	804	819	34,483	33,028
> 10 years	2,235	2,434	37,610	34,523	1,112	1,218	40,957	38,175
Subtotal	5,185	5,619	115,296	110,441	2,543	3,369	123,023	119,429
Mortgage and asset-								
backed securities:								
< 1 year	_	_	27	351	_	_	27	351
1 to 5 years	109	132	1,708	2,995	-	_	1,816	3,127
5 to 10 years	56	46	2,319	3,809	_	_	2,375	3,855
> 10 years	322	383	12,618	10,540	_	_	12,940	10,923
Subtotal	487	561	16,671	17,695	_	_	17,158	18,256
Total	5,672	6,180	131,967	128,137	2,543	3,369	140,181	137,685

The analysis in table 6.4 is provided by contractual maturity. Actual maturities may differ from contractual maturities because certain borrowers have the right to call or prepay certain obligations with or without call or prepayment penalties.

# Investment property

Table 6.5		
in USD millions		Total
	2016	2015
As of January 1	9,865	8,784
Additions and improvements	938	1,460
Acquisitions/(divestments)	(28)	_
Disposals	(183)	(87)
Market value revaluation	281	132
Transfer from/to assets held for own use	(5)	28
Transfer to assets held for sale	(84)	(16)
Foreign currency translation effects	(222)	(436)
As of December 31	10,562	9,865

Investment property consists of investments in commercial, residential and mixed-use properties primarily located in Switzerland, Germany and the UK.

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

Table 6.6		
in USD millions, as of December 31		Total
	2016	2015
Equity securities: available-for-sale	1,290	1,138
Debt securities: available-for-sale	9,637	8,723
Other	469	367
Gross unrealized gains/(losses) on Group investments	11,396	10,228
Less amount of unrealized gains/(losses) on investments attributable to:		
Life policyholder dividends and other policyholder liabilities	(6,500)	(5,814)
Life deferred acquisition costs and present value of future profits	(696)	(654)
Deferred income taxes	(1,006)	(968)
Non-controlling interests	(22)	(29)
Total <sup>1</sup>	3,171	2,763

<sup>1</sup> Net unrealized gains/(losses) on Group investments include net gains arising on cash flow hedges of USD 418 million and USD 294 million as of December 31, 2016

Securities lending, repurchase and reverse repurchase agreements

Table 6.7		
in USD millions, as of December 31	2016	2015
Securities lending agreements		
Securities lent under securities lending agreements <sup>1</sup>	3,465	4,527
Collateral received for securities lending	3,744	4,909
of which: cash collateral	126	93
of which: non-cash collateral <sup>2</sup>	3,619	4,815
Liabilities for cash collateral received for securities lending	126	93
Repurchase agreements		
Securities sold under repurchase agreements <sup>3</sup>	1,284	1,596
Obligations to repurchase securities	1,280	1,596
Reverse repurchase agreements		
Securities purchased under reverse repurchase agreements <sup>4</sup>	973	194
Receivables under reverse repurchase agreements	970	193

<sup>&</sup>lt;sup>1</sup> The Group's counterparties had the right to sell or re-pledge, in the absence of default, assets pledged as collateral with a fair value of USD 3,465 million and USD 4,527 million as of December 31, 2016 and 2015, respectively. The majority of these assets were debt securities.

<sup>2</sup> The Group had the right to sell or re-pledge, in the absence of default by its counterparties, securities received as collateral with a fair value of USD 3,317 million and USD 4,573 million as of December 31, 2016 and 2015, respectively.

Under the terms of securities lending or repurchase agreements, the ZIC Group retains substantially all the risks and rewards of ownership of the transferred securities, and also retains contractual rights to the cash flows therefrom. These securities are therefore not derecognized from the ZIC Group's balance sheet. Cash received as collateral is recorded as an asset, and a corresponding liability is established. Interest expense is charged to income using the effective interest rate method over the life of the agreement.

Under a reverse repurchase agreement, the securities received are not recognized on the balance sheet, as long as the risk and rewards of ownership have not been transferred to the ZIC Group. The cash delivered by the ZIC Group is derecognized and a corresponding receivable is recorded within receivables and other assets. Interest income is recognized in income using the effective interest rate method over the life of the agreement.

<sup>&</sup>lt;sup>3</sup> The Group's counterparties had the right to sell or re-pledge, in the absence of default, assets pledged as collateral with a fair value of USD 724 million and USD 997 million as of December 31, 2016 and 2015, respectively. The majority of these assets were debt securities.

<sup>&</sup>lt;sup>4</sup> The Group had the right to sell or re-pledge, in the absence of default by its counterparties, securities received as collateral with a fair value of USD 845 million and USD 99 million as of December 31, 2016 and 2015, respectively.

### 7. Group derivative financial instruments and hedge accounting

The ZIC Group uses derivative financial instruments mainly for economic hedging purposes in order to mitigate risks. Such risks result from changes in interest rates, equity prices and exchange rates. Derivative financial instruments with a positive fair value are reported in receivables and other assets (see note 15) and those with a negative fair value are reported in other liabilities (see note 16).

Table 7.1 shows the fair value and notional amounts for instruments which do not qualify for hedge accounting as of December 31, 2016 and 2015. Whilst these notional amounts express the extent of the ZIC Group's involvement in derivative transactions, they do not, however, represent the amounts at risk.

Maturity profile of	i
notional amounts	
and fair values of	
<b>Group derivative</b>	
financial instrument	S

Table 7.1									
in USD millions, as of December 31						2016			2015
					Positive	Negative		Positive	Negative
				Notional	fair	fair	Notional	fair	fair
	Maturity	y by notion	al amount	amounts	values	values	amounts	values	values
		1 to							
	< 1 year	5 years	> 5 years						
Interest rate contracts:									
ОТС									
Swaps	231	618	2,317	3,166	116	(19)	3,700	124	(18)
Swaptions	237	1,144	804	2,185	57	(23)	2,491	81	(26)
Exchange traded									
Futures	77	_	_	77	_	_	201	_	
Total interest rate contracts	544	1,762	3,121	5,428	173	(43)	6,392	206	(44)
Equity contracts:									
ОТС									
Swaps	_	_	_	_	_	_	48	_	
Options	2,410	2,200	202	4,813	115	(77)	4,355	121	(73)
Exchange traded									
Options	_	_	_	_	_	_	27	_	
Futures	358	_	_	358	3	_	397	_	(5)
Total equity contracts	2,768	2,200	202	5,170	118	(77)	4,828	121	(78)
Foreign exchange contracts:									
ОТС									
Swaps and forwards	16,996	_	_	16,996	88	(76)	19,145	84	(116)
Total foreign exchange									
contracts	16,996	_	_	16,996	88	(76)	19,145	84	(116)
Other contracts:									
ОТС									
Swaps	_	_	51	51	_	(6)	56	_	(5)
Total other contracts	_	_	51	51	_	(6)	56	_	(5)
Total Group derivative									
financial instruments	20,308	3,962	3,375	27,645	380	(200)	30,421	411	(243)

#### Interest rate contracts

Interest rate contracts are used to hedge risks from changes in interest rates and to manage asset liability mismatches. Whenever possible the ZIC Group enters into exchange traded contracts, which are standardized and regulated. Furthermore, because of the structure of the exchanges, exchange traded contracts are not considered to carry counterparty risk. Over-the-counter (OTC) contracts are otherwise entered into and comprised of swaps and swaptions.

#### **Equity contracts**

Equity contracts are entered into, either on a portfolio or on a macro level to protect equity investments against a decline in equity market prices or to manage the risk return profile of equity exposures. The majority of positions are for economic hedging purposes. Short positions are always covered and sometimes used to mitigate hedging costs.

#### Foreign exchange contracts

Swaps and forward contracts are used to hedge the ZIC Group's foreign currency exposures and to manage balance sheet mismatches.

#### Other contracts

Other contracts predominantly include stable value products (SVPs) issued to insurance company separate accounts in connection with certain life insurance policies (Bank Owned Life Insurance (BOLI) and Company Owned Life Insurance (COLI)) with an account value of USD 9.0 billion and USD 9.2 billion as of December 31, 2016 and 2015, respectively and with a market value of the underlying investments of USD 8.9 billion and USD 9.2 billion as of December 31, 2016 and 2015, respectively. The Group closely monitors the risk of surrender of these life insurance policies and includes the likelihood of surrender as one of the input parameters to determine the fair value of the SVPs which was nil as of December 31, 2016 and 2015.

In certain circumstances derivative financial instruments meet the requirements of an effective hedge for accounting purposes. Where this is the case, hedge accounting may be applied. Financial information for these instruments is set out in table 7.2.

Maturity profile of notional amounts and fair values of Group derivative financial instruments

Table 7.2									
in USD millions, as of December 31						2016			2015
	Maturity	by notion	al amount	Notional	Positive	Negative	Notional	Positive	Negative
		1 to 5		principal	fair	fair	principal	fair	fair
	< 1 year	years	> 5 years	amounts	values	values	amounts	values	values
Fair value hedges:									
Cross currency swaps	_	8	62	69	_	(59)	70	_	(56)
Interest rate swaps	_	1,231	906	2,137	96	(2)	1,770	99	_
Forex swaps and forwards	449	_	-	449	-	(2)	393	_	(3)
Total fair value hedges	449	1,238	967	2,655	97	(63)	2,233	99	(59)
Cash flow hedges:									
Interest rate swaptions	_	832	1,226	2,058	448	_	2,931	586	_
Cross currency swaps	-	93	171	264	12	_	43	_	_
Interest rate swaps <sup>1</sup>	26	11	517	555	9	-	96	12	_
Forwards bonds	-	264	-	264	11	(16)	272	_	(54)
Total cash flow hedges	26	1,200	1,914	3,140	479	(16)	3,342	598	(54)
Net investment hedges:									
Forex swaps and forwards	4,686	_	_	4,686	11	(64)	1,352	6	(1)
Total net investment									
hedges	4,686	-	-	4,686	11	(64)	1,352	6	(1)

<sup>&</sup>lt;sup>1</sup> Includes USD 325 million notional principal amounts related to derivatives centrally cleared as of December 31, 2016.

#### Fair value hedges

Designated fair value hedges consist of interest rate swaps used to protect the ZIC Group against changes in interest rate exposure and foreign currency exposure of debt issued by the Group.

Information on debt issuances designated as hedged items in fair value hedge relationships is set out in note 18.

The ZIC Group also has fair value hedge relationships consisting of cross currency swaps, forex swaps and forwards to protect the ZIC Group from foreign currency fluctuation of certain fixed income securities and hybrid equity securities denominated in a currency other than the functional currency of the reporting entity.

Changes in the fair value of the derivative financial instruments designated as fair value hedges and changes in the fair value of the hedged item in relation to the risk being hedged are both recognized in income.

Table 7.3 sets out gains and losses arising from fair value hedges:

Gains/(losses)
arising from
fair value hedges

Table 7.3		
in USD millions, for the years ended December 31	2016	2015
Gains/(losses)		
on hedging instruments <sup>1</sup>	(12)	(47)
on hedged items attributable to the hedged risk	11	21

<sup>1</sup> Excluding current interest income, which is recognized as an offset on the same line as the interest expense of the hedged debt.

#### Cash flow hedges

Designated cash flow hedges, such as interest rate swaptions and forwards are used to protect the ZIC Group against variability of future cash flows due to changes in interest rates associated with expected future purchases of debt securities (during the years 2021 and 2026) required for certain life insurance policies. The effective portion of the gains and losses on these swaptions are initially recognized in OCI. Subsequently the gains or losses will be recycled to income within net investment income on Group investments over the period to December 31, 2036. The gains and losses relating to the ineffective portion of these hedges are recognized immediately in income within net capital gains/(losses) on investments and impairments.

The ZIC Group also uses interest rate swaps and cross currency swaps for cash flow hedging to protect against the exposure to variability of cash flows attributable to interest rate and currency risk. The hedging instrument is measured at fair value, with the effective portion of changes in its fair value recognized in OCI. The effective portion, related to spot rate changes in the fair value of the hedging instrument, is reclassified to income within administrative and other operating expense as an offset to foreign currency revaluation on the underlying hedged debt. The ineffective portion of the change in fair value is recognized directly in income within administrative and other operating expense.

As of December 31, 2016, there were no debt issuances designated as hedged items in a cash flow hedge relationship (see note 18).

The net change of gains/(losses) deferred in OCI on derivative financial instruments designated as cash flow hedges were USD 158 million and USD (22) million before tax for the years ended December 31, 2016 and 2015, respectively.

The ZIC Group recognized gains of USD 3 million and USD 12 million in the consolidated income statement within net investment income on Group investments for the years ended December 31, 2016 and 2015, respectively. The ZIC Group also recognized net gains/(losses) of USD 4 million and USD (40) million within administrative and other operating expense for the years ended December 31, 2016 and 2015, respectively, as an offset to the foreign currency revaluation on the underlying hedged items.

A nil amount for the years ended December 31, 2016 and 2015, respectively, was recognized in net capital gains/ (losses) and impairments due to hedge ineffectiveness.

#### Net investment hedges

The ZIC Group applies net investment hedge accounting in order to protect itself against the effects of changes in exchange rates in its net investments in foreign operations.

Measurement of hedge effectiveness is based on changes in forward rates. Gains and losses on the designated hedging derivative and non-derivative financial instruments relating to the effective portion of the hedge are recognized in OCI together with the translation gains and losses on the hedged net investment. The accumulated gains and losses in OCI are reclassified to income on disposal or partial disposal of the foreign operation.

The net change of gains/(losses) deferred in OCI were USD (58) million and USD (47) million before tax for the years ended December 31, 2016 and 2015, respectively as a result of a hedge relationship through foreign exchange forwards and swaps.

The ZIC Group has also designated certain debt issuances as hedging instruments on a non-derivative net investment hedge relationship. The notional amount of these financial instruments was USD 4.2 billion and 3.2 billion for the years ended December 31, 2016 and 2015, respectively. The net gains/(losses) deferred in OCI were USD (16) million and USD 4 million before tax for the years ended December 31, 2016 and 2015, respectively.

Information on debt issuances designated as hedging instruments in a net investment hedge relationship is set out in note 18.

No ineffectiveness of net investment hedges was recognized in net capital gains/(losses) and impairments for the years ended December 31, 2016 and 2015.

#### Derivative financial instruments: offsetting of financial assets and liabilities

Table 7.4 shows the net asset and liability position of Group derivative financial instruments subject to enforceable master netting arrangements and collateral agreements. Master netting arrangements are used by the ZIC Group to provide protection against loss in the event of bankruptcy or other circumstances that result in a counterparty being unable to meet its obligations. These arrangements commonly create a right of offset that becomes enforceable and affects the realization or settlement of individual financial assets and financial liabilities only following a specified event of default or other circumstances which would not be expected to arise in the normal course of business.

Group derivative financial instruments subject to enforceable master netting arrangements and collateral agreements

Table 7.4						
in USD millions, as of December 31	D	erivative assets	Deri	Derivative liabilities		
s	2016	2015	2016	2015		
Fair value	967	1,114	(344)	(356)		
Related amounts not offset	(142)	(109)	141	110		
Cash collateral (received)/pledged	(717)	(913)	79	55		
Non-cash collateral (received)/pledged	(22)	(25)	22	62		
Net amount	87	66	(102)	(129)		

# 8. Reserves for insurance contracts and reinsurers' share of reserves for insurance contracts

# Reserves for insurance contracts

Table 8.1						
in USD millions, as of December 31		Gross		Ceded		Net
	2016	2015	2016	2015	2016	2015
Reserves for losses and loss adjustment expenses <sup>1</sup>	61,470	62,971	(9,777)	(9,231)	51,693	53,739
Reserves for unearned premiums	16,416	16,230	(2,910)	(2,681)	13,507	13,549
Future life policyholder benefits <sup>2</sup>	72,440	71,952	(3,766)	(4,016)	68,674	67,935
Policyholder contract deposits and other funds	22,785	22,076	(1,958)	(1,956)	20,827	20,121
Reserves for unit-linked contracts	65,530	64,393	-	-	65,530	64,393
Total reserves for insurance contracts <sup>3</sup>	238,641	237,622	(18,411)	(17,885)	220,230	219,737

- 1 Includes on a net basis USD 2.5 billion of discounted reserves for losses and loss adjustment expenses as of December 31, 2016 and 2015, respectively.
- <sup>2</sup> The ZIC Group's life operations in the UK entered into a reinsurance agreement to transfer the risk associated with a significant annuities portfolio with effect from April 1, 2015, supplemented with three further transfers of risk relating to additional annuity policies with effect from October 1, 2015, April 1, 2016 and October 1, 2016, respectively. The gain resulting from these transactions is being recognized on a linear basis over the lifetime of the underlying agreement, which is assumed to end on June 30, 2017.
- <sup>3</sup> Total reserves for insurance contracts ceded are gross of allowances for uncollectible amounts of USD 64 million and USD 111 million as of December 31, 2016 and 2015, respectively.

Development of reserves for losses and loss adjustment expenses

Table 8.2						
in USD millions		Gross		Ceded		Net
	2016	2015	2016	2015	2016	2015
As of January 1	62,971	64,472	(9,231)	(9,770)	53,739	54,703
Losses and loss adjustment expenses incurred:						
Current year	23,044	24,969	(4,081)	(3,256)	18,963	21,713
Prior years	(327)	(198)	214	347	(114)	149
Total incurred	22,717	24,771	(3,868)	(2,909)	18,849	21,862
Losses and loss adjustment expenses paid:						
Current year	(8,256)	(8,450)	873	654	(7,383)	(7,796)
Prior years	(14,145)	(15,028)	2,456	2,452	(11,690)	(12,576)
Total paid	(22,401)	(23,478)	3,329	3,107	(19,072)	(20,372)
Acquisitions/(divestments) and transfers <sup>1</sup>	(224)	(61)	(205)	(44)	(430)	(106)
Foreign currency translation effects	(1,592)	(2,733)	198	385	(1,393)	(2,349)
As of December 31	61,470	62,971	(9,777)	(9,231)	51,693	53,739

<sup>&</sup>lt;sup>1</sup> The 2016 net movement of USD (430) million consists of USD 90 million relating to the acquisitions of RCIS, Kono Insurance Limited and Zurich Takaful Company Limited and USD (244) million relating to the sale of the ZIC Group's insurance operations in Morocco and South Africa. Additionally, USD (147) million are reclassified to assets and liabilities held for sale (see note 5) and USD (128) million relate to a reinsurance agreement which transferred the benefits and risks of some of the ZIC Group's non-core business portfolio to a third party. The 2015 net movement includes USD (44) million relating to a reinsurance agreement which transferred the benefits and risks of some of the ZIC Group's general insurance portfolio to a third party and USD (61) million relating to the sale of the ZIC Group's Dutch general insurance portfolio to a third party.

The ZIC Group establishes loss reserves, which are estimates of future payments of reported and unreported claims for losses and related expenses, with respect to insured events that have occurred. Reserving is a complex process dealing with uncertainty, requiring the use of informed estimates and judgments. Any changes in estimates or judgments are reflected in the results of operations in the period in which estimates and judgments are changed.

Significant delays may occur in the notification and settlement of claims, and a substantial measure of experience and judgment is involved in assessing outstanding liabilities, the ultimate cost of which cannot be known with certainty as of the balance sheet date. The reserves for losses and loss adjustment expenses are determined on the basis of information currently available. However, it is inherent in the nature of the business written that the ultimate liabilities may vary as a result of subsequent developments.

In the UK, the Government mandates the discount rates to be applied to personal injury claims. Payment to claimants is either via a lump sum amount or a periodic payment option. The lump sum amount is calculated using Ogden tables defined by the Lord Chancellor of the UK Ministry of Justice. A critical component of the Ogden tables is the discount rate, which was 2.5 percent as of December 31, 2016 and had been in effect since 2001. The Ministry of Justice announced its intention to review the discount rate in December 2016. On February 27, 2017, the UK Ministry of Justice announced the outcome of its review of the Ogden discount rate. The discount rate was changed from 2.5 percent to minus 0.75 percent. The ZIC Group was reserved at an assumed discount rate of 1 percent. The impact of the change in rate to minus 0.75 percent was an increase in reserves for losses and loss adjustment expenses of USD 315 million. The ZIC Group has reflected the full impact within the consolidated financial statements 2016 (see note 29).

For the year ended December 31, 2016, the decrease of USD 2,046 million in net reserves for losses and loss adjustment expenses is driven by a net decrease of USD 430 million relating to acquisitions/(divestments) and transfers (see table 8.2) as well as a decrease of USD 1,393 million due to foreign currency translation effects. In addition, net favorable reserve development emerged from reserves established in prior years amounting to USD 114 million mainly relating to the following:

- → In Europe, Middle East & Africa, unfavorable prior year development of USD 315 million related to the update of the Ogden rate in the UK, partially offset by favorable prior year development of USD 89 million for Swiss motor third party liability, as well as USD 85 million for UK property;
- → In North America Commercial, favorable prior year development of USD 111 million for workers' injury;
- → Favorable prior year development of USD 130 million for Global Corporate driven by property.

For the year ended December 31, 2015, the decrease of USD 964 million in net reserves for losses and loss adjustment expenses was mostly driven by the effect of foreign currency translation of USD 2,349 million. Excluding this effect, reserves for losses and loss adjustment expenses increased by USD 1,385 million. Underlying unfavorable reserve development arising from reserves established in prior years amounted to USD 149 million during the year ended December 31, 2015, and mainly related to the following:

- → In North America, adverse prior year development of USD 264 million was driven by auto liability and certain lines of business;
- → Favorable prior year development of USD 121 million driven by Swiss motor third party liability;
- → Adverse prior year development of USD 110 million in Non-Core Businesses from latent diseases and other discontinued portfolios.

	Table 8.3										
Development of	in USD millions, as of December 31	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
nsurance losses,	Gross reserves for losses and										
net	loss adjustment expenses	67,890	65,218	68,126	68,274	67,762	69,986	68,312	64,472	62,971	61,470
	Reinsurance recoverable	(13,179)	(12,232)	(12,182)	(12,093)	(12,421)	(12,601)	(10,993)	(9,770)	(9,231)	(9,777
	Initial net reserves for losses										
	and loss adjustment expenses	54,712	52,986	55,944	56,180	55,341	57,385	57,319	54,703	53,739	51,693
	Cumulative paid										
	as of December 31:										
	One year later	(12 551)	(13 0/17)	(12 716)	(13 (192)	(13 525)	(13 700)	(13 301)	(12,576)	(11 690)	
	Two years later			(12,710)						(11,030)	
	Three years later			(25,623)					(13,400)		
	Four years later			(30,127)				(20,021)			
	Five years later						(30,091)				
				(33,325)							
	Six years later			(35,678)	(30,330)						
	Seven years later		(36,480)	(5/,324)							
	Eight years later		(37,798)								
	Nine years later	(37,793)									
	Cumulative incurred										
	as of December 31:										
	One year later	(1,271)	(1,059)	(1,378)	(1,302)	(571)	(757)	(59)	149	(114)	
	Two years later	(2,152)	(2,350)	(2,565)	(1,819)	(891)	(652)	(139)	3		
	Three years later	(2,844)	(3,048)	(2,700)	(2,028)	(677)	(777)	(46)			
	Four years later	(3,533)	(3,176)	(2,770)	(1,891)	(804)	(686)				
	Five years later	(3,580)	(3,235)	(2,587)	(2,020)	(803)					
	Six years later	(3,478)	(2,958)	(2,677)	(2,031)						
	Seven years later	(3,215)	(2,973)	(2,610)							
	Eight years later	(3,271)	(2,866)								
	Nine years later	(3,183)									
	Net reserves re-estimated										
	as of December 31:										
	One year later	53,441	51,927	54,565	54 878	54,770	56,628	57,259	54,852	53,625	
	Two years later	52.559	50,637	53,379	54,361			57,180		33,023	
	Three years later		49,939	53,243		54,664		57,273	3 1,7 00		
	Four years later		49,810	53,173	54,289		56,700	37,273			
	Five years later			53,357			30,700				
	Six years later			53,267		2 1,220					
	Seven years later	51,497		53,334	5-7, 1-7-3						
	Eight years later	51,441	50,014	JJ,JJ+							
	Nine years later	51,529	50,121								
	Cumulative (deficiency)/										
		2 102	2 066	2 610	2 024	002	606	1.0	/2\	111	
	redundancy of net reserves  Cumulative (deficiency)/	3,183	2,866	2,610	2,031	803	686	46	(3)	114	
	redundancy as a percentage										
	of initial net reserves	F 00/	E 40/	4.70/	2.60/	1 = 0/	1 20/	0.10/	(0.00/)	0.20/	
	of initial net reserves	5.8%	5.4%	4.7%	3.6%	1.5%	1.2%	0.1%	(0.0%)	0.2%	
	Gross reserves re-estimated										
	as of December 31	63,376	60,986	63,702	64,834	65,689	67,662	67,207	64,058	62,643	
	Cumulative (deficiency)/										
	i i c	1 515	4,232	4,424	3,440	2,073	2,324	1,105	414	327	
	redundancy of gross reserves	4,515	7,232	.,	5,1.0	-/		.,	717	221	
	Cumulative (deficiency)/	4,515	7,232	.,	37.10			.,	717	321	
		4,515	7,232	.,	3,110			.,	717	321	

Table 8.3 presents changes in the historical reserves for losses and loss adjustment expenses, net of reinsurance, that the ZIC Group established in 2007 and subsequent years. Reserves are presented by financial year, not by accident year. The reserves (and the development thereon) are for all accident years in that financial year. The top line of the table shows the estimated gross reserves for unpaid losses and loss adjustment expenses as of each balance sheet date, which represents the estimated amount of future payments for losses incurred in that year and in prior years. The cumulative paid portion of the table presents the cumulative amounts paid through each subsequent year in respect of the reserves established at each year end. Similarly, the cumulative incurred losses section details the sum of the cumulative paid amounts shown in the triangle above and the changes in loss reserves since the end of each financial year. The net reserves re-estimated portion of the table shows the re-estimation of the initially recorded reserve as of each succeeding year end. Reserve development is shown in each column. Changes to estimates are made as more information becomes known about the actual losses for which the initial reserves were established. The cumulative deficiency or redundancy is equal to the initial net reserves less the liability re-estimated as of December 31, 2016. It is the difference between the initial net reserve estimate and the last entry of the diagonal in the net reserves re-estimated portion of the table. Conditions and trends that have affected the development of reserves for losses and loss adjustment expenses in the past may or may not necessarily occur in the future, and accordingly, conclusions about future results cannot be derived from the information presented in table 8.3.

Development of reserves for losses and loss adjustment expenses for asbestos

Table 8.4				
in USD millions		2016		2015
	Gross	Net	Gross	Net
Asbestos				
As of January 1	2,712	2,395	2,882	2,540
Losses and loss adjustment expenses incurred	(13)	(17)	16	5
Losses and loss adjustment expenses paid	(145)	(125)	(162)	(143)
Foreign currency translation effects	(345)	(299)	(23)	(7)
As of December 31	2,209	1,954	2,712	2,395

The ZIC Group has considered asbestos, including latent injury, claims and claims expenses in establishing the reserves for losses and loss adjustment expenses. The ZIC Group continues to be advised of indemnity claims asserting injuries from asbestos. Coverage and claim settlement issues, such as determination that coverage exists and the definition of an occurrence, together with increased medical diagnostic capabilities and awareness have often caused actual loss development to exhibit more variation than in other lines of business. Such claims require specialized reserving techniques and the uncertainty of the ultimate cost of these types of claims has tended to be greater than the uncertainty relating to standard lines of business.

For the year ended December 31, 2016, reserves for asbestos claims decreased by USD 503 million gross and USD 441 million net. The decrease in the gross reserve primarily arose from payments of USD 145 million mainly in the UK and North America, foreign currency translation effects of USD 345 million and favorable prior year development of USD 13 million mainly in the UK.

For the year ended December 31, 2015, reserves for asbestos claims decreased by USD 170 million gross and USD 145 million net. The decrease in the gross reserve primarily arose from payments of USD 162 million mainly in the UK and North America, foreign currency translation effects of USD 23 million and an adverse prior year development of USD 16 million in the UK and North America. Reserve adequacy improved during 2015 following a commutation settlement in Centre Group Holdings Limited related to asbestos claims.

Development of future life policyholder benefits

Table 8.5						
in USD millions		Gross		Ceded		Net
	2016	2015	2016	2015	2016	2015
As of January 1	71,952	77,652	(4,016)	(2,441)	67,935	75,211
Premiums <sup>1</sup>	13,532	12,270	(820)	(2,449)	12,711	9,821
Claims	(9,747)	(9,797)	625	629	(9,122)	(9,169)
Fee income and other expenses	(3,694)	(3,652)	151	180	(3,543)	(3,472)
Interest and bonuses credited to policyholders	2,177	2,239	(117)	(115)	2,060	2,125
Changes in assumptions	168	153	(6)	4	162	158
Acquisitions/(divestments) and transfers <sup>2</sup>	(55)	(668)	23	_	(32)	(668)
Increase/(decrease) recorded in						
other comprehensive income	(12)	(335)	_	-	(12)	(335)
Foreign currency translation effects	(1,879)	(5,910)	394	174	(1,486)	(5,736)
As of December 31	72,440	71,952	(3,766)	(4,016)	68,674	67,935

<sup>&</sup>lt;sup>1</sup> The ZIC Group's life operations in the UK entered into a reinsurance agreement to transfer the risk associated with a significant annuities portfolio with effect from April 1, 2015, supplemented with three further transfers of risk relating to additional annuity policies with effect from October 1, 2015, April 1, 2016 and October 1, 2016, respectively. The gain resulting from these transactions is being recognized on a linear basis over the lifetime of the underlying agreement, which is assumed to end on June 30, 2017.

<sup>2</sup> The 2016 net movement of USD (32) million relates to acquisitions and divestments (see note 5). The 2015 net movement relates to USD (425) million transferred to

Long-duration contract liabilities included in future life policyholder benefits result primarily from traditional participating and non-participating life insurance products. Short-duration contract liabilities are primarily accident and health insurance products.

Future life policyholder benefits are generally calculated by a net premium valuation. In terms of USD, the weighted average discount rate used in the calculation of future life policyholder benefits is 2.6 percent and 2.7 percent as of December 31, 2016 and 2015, respectively.

The amount of policyholder dividends to be paid is determined annually by each life insurance subsidiary. Policyholder dividends include life policyholder share of net income and unrealized appreciation of investments that are required to be allocated by the insurance contract or by local insurance regulations. Experience adjustments relating to future policyholder benefits and policyholder contract deposits vary according to the type of contract and the country. Investment, mortality and morbidity results may be passed through by experience credits or as an adjustment to the premium mechanism, subject to local regulatory provisions.

The net impact of changes in assumptions on future life policyholder benefits by type of assumption is shown in table 8.6.

Effect of changes in assumptions for future life policyholder benefits

Net impact of changes in assumptions	162	158
Other	(6)	(1)
Complaints rates	_	(1)
Lapses	11	1
Longevity	(10)	(28)
Morbidity	(10)	(1)
Expense	6	10
Changes in modeling	12	(2)
Investment return	8	(96)
Interest rates	152	276
in USD millions, for the years ended December 31	2016	2015
Table 8.6		

<sup>&</sup>lt;sup>2</sup> The 2016 net movement of USD (32) million relates to acquisitions and divestments (see note 5). The 2015 net movement relates to USD (425) million transferred to Banco Santander S.A., which was previously managed on a fiduciary and ring-fenced basis, and USD (381) million reclassified to policyholder contract deposits and other funds, partially offset by USD 90 million reclassified from other liabilities and USD 48 million reclassified from reserves for unit-linked insurance contracts and liabilities for investment contracts.

Policyholder contract deposits and other funds gross

Table 8.7		
in USD millions, as of	12/31/16	12/31/15
Universal life and other contracts	12,126	12,120
Policyholder dividends	10,658	9,957
Total	22,785	22,076

Development of policyholder contract deposits and other funds

Table 8.8						
in USD millions		Gross		Ceded		Net
	2016	2015	2016	2015	2016	2015
As of January 1	22,076	23,415	(1,956)	(1,994)	20,121	21,421
Premiums	1,105	1,118	(58)	(53)	1,046	1,065
Claims	(1,265)	(1,419)	137	172	(1,128)	(1,247)
Fee income and other expenses	(460)	(474)	(6)	(5)	(466)	(479)
Interest and bonuses credited to policyholders	1,002	1,561	(75)	(76)	927	1,485
Acquisitions/(divestments) and transfers <sup>1</sup>	6	381	-	_	6	381
Increase/(decrease) recorded in						
other comprehensive income	894	(987)	_	-	894	(987)
Foreign currency translation effects	(574)	(1,520)	-	-	(574)	(1,520)
As of December 31	22,785	22,076	(1,958)	(1,956)	20,827	20,121

<sup>&</sup>lt;sup>1</sup> The 2016 net movement of USD 6 million relates to the acquisition and divestment in Malaysia and Morocco, respectively, (see note 5). The 2015 net movement relates to USD 381 million reclassified from future life policyholder benefits.

Tables 8.9a and 8.9b provide an analysis of the expected maturity profile of reserves for insurance contracts, net of reinsurance, based on expected cash flows without considering the surrender values as of December 31, 2016 and 2015. Reserves for unit-linked insurance contracts amounting to USD 65.5 billion and USD 64.4 billion as of December 31, 2016 and 2015, respectively, are not included, as policyholders can generally surrender their contracts at any time, at which point the underlying unit-linked assets would be liquidated. Risks from the liquidation of unit-linked assets are largely borne by the policyholders of unit-linked contracts.

Expected maturity profile for reserves for insurance contracts, net of reinsurance – current period

Table 8.9a				
in USD millions, as of December 31, 2016	Reserves for losses		Policyholder	
	and loss adjustment	Future life policy-	contract deposits	
	expenses	holder benefits	and other funds	Total
< 1 year	13,999	9,015	1,491	24,505
1 to 5 years	21,386	17,184	1,641	40,211
5 to 10 years	8,104	12,393	1,946	22,443
10 to 20 years	5,777	14,228	2,414	22,419
> 20 years	2,427	15,854	13,335	31,616
Total	51,693	68,674	20,827	141,193

Expected maturity profile for reserves for insurance contracts, net of reinsurance – prior period

Table 8.9b				
in USD millions, as of December 31, 2015	Reserves for losses		Policyholder	
	and loss adjustment	Future life policy-	contract deposits	
	expenses	holder benefits	and other funds	Total
< 1 year	14,842	8,364	1,702	24,908
. 1 to 5 years	22,392	16,529	1,706	40,627
5 to 10 years	8,289	12,581	1,884	22,754
10 to 20 years	5,793	14,442	2,406	22,641
> 20 years	2,424	16,018	12,422	30,865
Total	53,739	67,935	20,121	141,795

### 9. Liabilities for investment contracts.

Liabilities for investment contracts

Table 9.1		
in USD millions, as of December 31	2016	2015
Unit-linked investment contracts	60,233	62,245
Investment contracts (amortized cost)	506	754
Investment contracts with DPF	8,374	7,629
Total	69,113	70,627

Unit-linked investment contracts issued by the ZIC Group are recorded at a value reflecting the returns on investment funds which include selected equities, debt securities and derivative financial instruments. Policyholders bear the full risk of the returns on these investments.

The value of financial liabilities at amortized cost is based on a discounted cash flow valuation technique. The initial valuation of the discount rate is determined by the current market assessment of the time value of money and risk specific to the liability.

Development of liabilities for investment contracts

Table 9.2		
	2015	2045
in USD millions	2016	2015
As of January 1	70,627	70,813
Premiums	9,818	9,791
Claims	(7,719)	(7,798)
Fee income and other expenses	(430)	(465)
Interest and bonuses credited to policyholders	8,149	3,277
Acquisitions/(divestments) and transfers <sup>1</sup>	(2,545)	(29)
Increase/(decrease) recorded in other comprehensive income	(12)	152
Foreign currency translation effects	(8,775)	(5,115)
As of December 31	69,113	70,627

<sup>&</sup>lt;sup>1</sup> The 2016 movement relates to the sale of unit-linked Private Banking Solutions business in Luxembourg. The 2015 movement relates to USD (29) million reclassified to future life policyholder benefits.

Tables 9.3a and 9.3b provide an analysis of investment contract liabilities according to maturity, based on expected cash flows as of December 31, 2016 and 2015. The undiscounted contractual cash flows for investment contract liabilities are USD 69.1 billion and USD 70.8 billion as of December 31, 2016 and 2015, respectively. Liabilities for unit-linked investment contracts amounted to USD 60.2 billion and USD 62.2 billion as of December 31, 2016 and 2015, respectively. Policyholders of unit-linked investment contracts can generally surrender their contracts at any time, leading the underlying assets to be liquidated, risks arising from liquidation of unit-linked assets are borne by the policyholders. Certain non-unit-linked contracts also allow for surrender of the contract by the policyholder at any time. Liabilities for such contracts amounted to USD 633 million and USD 767 million as of December 31, 2016 and 2015, respectively. The ZIC Group actively manages the Global Life in-force business to improve persistency and retention.

Expected maturity profile for liabilities for investment contracts – current period

Table 9.3a				
in USD millions, as of December 31, 2016			Liabilities related to	
	Liabilities related to	Liabilities related to	investment contracts	
	unit-linked investment	investment contracts	with discretionary	
	contracts	(amortized cost)	participation features	Total
< 1 year	2,629	187	245	3,062
1 to 5 years	6,692	151	1,330	8,173
5 to 10 years	7,651	88	1,501	9,240
10 to 20 years	8,560	55	1,067	9,683
> 20 years	34,700	25	4,230	38,955
Total	60,233	506	8,374	69,113

<b>Expected maturity</b>
profile for
liabilities for
investment
contracts –
prior period

Table 9.3b				
in USD millions, as of December 31, 2015			Liabilities related to	
	Liabilities related to	Liabilities related to	investment contracts	
	unit-linked investment	investment contracts	with discretionary	
	contracts	(amortized cost)	participation features	Total
< 1 year	2,785	178	333	3,296
1 to 5 years	7,177	387	1,242	8,806
5 to 10 years	8,201	98	1,353	9,653
10 to 20 years	9,127	64	1,083	10,274
> 20 years	34,955	26	3,617	38,598
Total	62,245	754	7,629	70,627

# 10. Gross and ceded insurance revenues and expenses

la acc		la a sa a file	
insu	rance	benefi	LS
and	losses	5	

Table 10.1						
in USD millions, for the years ended December 31		Gross		Ceded		Net
	2016	2015	2016	2015	2016	2015
Losses and loss adjustment expenses	22,717	24,771	(3,868)	(2,909)	18,849	21,862
Life insurance death and other benefits	12,771	11,305	(814)	(2,422)	11,957	8,884
Total insurance benefits and losses	35,488	36,076	(4,682)	(5,330)	30,806	30,746

Policyholder dividends and participation in profits

Table 10.2		
in USD millions, for the years ended December 31	2016	2015
Change in policyholder contract deposits and other funds	856	1,439
Change in reserves for unit-linked products	5,776	3,241
Change in liabilities for investment contracts – unit-linked	7,930	3,092
Change in liabilities for investment contracts – other	230	191
Change in unit-linked liabilities related to UK capital gains tax	(273)	(101)
Total policyholder dividends and participation in profits	14,519	7,863

Underwriting and policy acquisition costs

Table 10.3						
in USD millions, for the years ended December 31		Gross		Ceded		Net
	2016	2015	2016	2015	2016	2015
Amortization of deferred acquisition costs	6,145	6,145	(620)	(529)	5,524	5,617
Amortization of deferred origination costs	75	98	_	-	75	98
Commissions and other underwriting						
and acquisition expenses <sup>1</sup>	3,325	3,553	(387)	(207)	2,938	3,346
Total underwriting and policy acquisition costs	9,545	9,796	(1,007)	(735)	8,538	9,061

<sup>&</sup>lt;sup>1</sup> Net of additions related to deferred acquisition and origination costs.

Change in reserves for unearned premiums

Table 10.4						
in USD millions, for the years ended December 31		Gross		Ceded		Net
	2016	2015	2016	2015	2016	2015
Change in reserves for unearned premiums	319	648	(168)	(352)	150	296

## 11. Deferred policy acquisition costs and deferred origination costs

Development of deferred policy acquisition costs

Table 11.1								
in USD millions	Genera	al Insurance		Global Life	Othe	r segments <sup>1</sup>		Total
	2016	2015	2016	2015	2016	2015	2016	2015
As of January 1	4,226	3,984	13,298	13,584	153	182	17,677	17,750
Acquisition costs deferred	4,466	4,286	1,689	1,862	425	450	6,580	6,598
Amortization	(3,831)	(3,817)	(1,278)	(1,314)	(413)	(483)	(5,522)	(5,614)
Impairments	(2)	(3)	_	_	_	_	(2)	(3)
Amortization (charged)/								
credited to other								
comprehensive income	_	-	(40)	240	_	_	(40)	240
Acquisitions/(divestments)								
and transfers <sup>2</sup>	(24)	-	(16)	_	19	-	(21)	-
Foreign currency								
translation effects	(5)	(224)	(870)	(1,074)	(1)	3	(876)	(1,295)
As of December 31	4,830	4,226	12,783	13,298	183	153	17,796	17,677

<sup>1</sup> Net of eliminations from inter-segment transactions

As of December 31, 2016 and 2015, deferred policy acquisition costs relating to non-controlling interests were USD 483 million and USD 401 million, respectively.

Development of deferred origination costs

Table 11.2		
in USD millions	2016	2015
As of January 1	506	595
Origination costs deferred	44	51
Amortization	(75)	(98)
Foreign currency translation effects	(50)	(41)
As of December 31	426	506

The 2016 General Insurance movement of USD 24 million includes USD 12 million relating to the sale of businesses in South Africa and Morocco, USD 9 million reclassified to assets held for sale (see note 5) and a portfolio transfer of USD 3 million to Non-Core Businesses. The 2016 Global Life movement of USD 16 million relates to the portfolio transfer of Zurich Life Insurance Singapore Pte Ltd to Non-Core Businesses.

## 12. Expenses

Table 12 shows expenses by functional area and by type of expense.

### **Expenses**

Table 12		
in USD millions, for the years ended December 31	2016	2015
Administrative and other operating expenses	7,450	8,602
Other underwriting and policy acquisition costs <sup>1</sup>	2,291	2,406
Claims handling expenses <sup>2</sup>	1,343	1,425
Other investment expenses <sup>3</sup>	135	145
Total	11,220	12,579
of which:		
Personnel and other related costs	5,438	5,702
Amortization and impairments of intangible assets <sup>4</sup>	416	1,003
Depreciation and impairments of property and equipment	174	198
Building and infrastructure costs	551	578
Brand and marketing expenses	401	439
Life recurring commission	398	400
Asset and other non-income taxes	76	73
IT expenses	1,437	1,389
Restructuring costs	309	447
Outsourcing and professional services	873	1,062
Foreign currency translation	(122)	(246)
Other	1,269	1,533
Total	11,220	12,579

Included within commissions and other underwriting and acquisition expenses (see table 10.3).
 Included within losses and loss adjustment expenses (see table 10.1).
 Excludes expenses arising from investment property within investment expenses for ZIC Group investments (see table 6.1).
 Amortization and impairments of distribution agreements are included within underwriting and policy acquisition costs starting from 2016. They amounted to USD 206 million for the year ended December 31, 2015 (see note 14).

## 13. Property and equipment

Buildings held for own use and equipment are carried at cost less accumulated depreciation and any accumulated impairment loss. These assets are depreciated usually on a straight-line basis to income over the following estimated useful lives:

- → Buildings 25 to 50 years;
- → Furniture and fixtures 5 to 10 years; and
- → Computer equipment 3 to 6 years.

Land held for own use is carried at cost less any accumulated impairment loss.

# Property and equipment – current period

Table 13.1						
in USD millions	Land	Buildings	Furniture			
	held for	held for	and	Computer	Other	
	own use	own use	fixtures	equipment	equipment	Total
Gross carrying value as of January 1, 2016	217	737	364	362	759	2,439
Less: accumulated depreciation/impairments	(6)	(363)	(226)	(297)	(407)	(1,299)
Net carrying value as of January 1, 2016	211	374	138	65	352	1,140
Additions and improvements	-	21	62	37	87	207
Acquisitions	-	8	-	4	3	15
Disposals <sup>1</sup>	(19)	(42)	(6)	(3)	(24)	(94)
Transfers	(27)	(89)	_	-	_	(116)
Depreciation and impairments	_	(17)	(38)	(30)	(89)	(174)
Foreign currency translation effects	(3)	(4)	(3)	(5)	(10)	(25)
Net carrying value as of December 31, 2016	162	251	154	67	319	953
Plus: accumulated depreciation/impairments	6	176	223	244	408	1,056
Gross carrying value as of December 31, 2016	168	427	377	311	727	2,009

<sup>1</sup> Includes USD 24 million relating to the sale of businesses in South Africa and Morocco and USD 24 million reclassification to assets held for sale (see note 5).

# Property and equipment – prior period

Table 13.2						
in USD millions	Land	Buildings	Furniture			
	held for	held for	and	Computer	Other	
	own use	own use	fixtures	equipment	equipment	Total
Gross carrying value January 1, 2015	239	823	381	423	769	2,635
Less: accumulated depreciation/impairments	(6)	(352)	(233)	(354)	(416)	(1,362)
Net carrying value January 1, 2015	233	471	148	69	353	1,273
Additions and improvements	_	10	31	30	113	184
Disposals	(1)	(8)	(1)	_	(20)	(31)
Transfers	(11)	(18)	(2)	(1)	2	(29)
Depreciation and impairments <sup>1</sup>	_	(57)	(29)	(28)	(83)	(198)
Foreign currency translation effects	(11)	(23)	(8)	(5)	(13)	(60)
Net carrying value as of December 31, 2015	211	374	138	65	352	1,140
Plus: accumulated depreciation/impairments	6	363	226	297	407	1,299
Gross carrying value as of December 31, 2015	217	737	364	362	759	2,439

<sup>1</sup> Following restructuring decisions in General Insurance, certain own use properties will no longer be required, resulting in an impairment of USD 32 million.

## 14. Attorney-in-fact contracts, goodwill and other intangible assets

Intangible assets – current period

Table 14.1							
in USD millions	Attorney-						
	in-fact			Distribution			
	contracts	Goodwill	PVFP	agreements	Software	Other	Total
Gross carrying value as of							
January 1, 2016	1,025	1,667	2,501	3,715	4,666	173	13,746
Less: accumulated amortization/							
impairments	_	(378)	(2,035)	(963)	(3,161)	(130)	(6,666)
Net carrying value as of							
January 1, 2016	1,025	1,289	466	2,752	1,505	43	7,080
Additions and acquisitions	_	576	106	112	395	101	1,291
Divestments and transfers	_	(33)	_	(5)	(15)	(3)	(56)
Amortization <sup>1</sup>	_	_	(23)	(188)	(343)	(8)	(563)
Amortization charged to							
other comprehensive income	_	_	(21)	_	_	_	(21)
Impairments	_	_	_	(2)	(41)	(1)	(44)
Foreign currency translation							
effects	_	(38)	(24)	45	(51)	(4)	(72)
Net carrying value as of							
December 31, 2016	1,025	1,795	504	2,713	1,450	128	7,615
Plus: accumulated amortization/							
impairments	_	315	1,918	1,147	3,196	124	6,700
Gross carrying value as of							
December 31, 2016	1,025	2,110	2,422	3,860	4,646	251	14,315

<sup>&</sup>lt;sup>1</sup> Amortization of distribution agreements is included within underwriting and policy acquisition costs.

As of December 31, 2016, intangible assets relating to non-controlling interests were USD 82 million for the present value of future profits (PVFP) of acquired insurance contracts, USD 1,155 million for distribution agreements and USD 32 million for software.

As a result of the acquisition of RCIS intangible assets increased by USD 454 million of which USD 354 million related to goodwill and USD 101 million to other intangible assets. As a result of the Australian Macquarie Life insurance business acquisition, goodwill and PVFP increased by USD 148 million and USD 70 million, respectively. The ZIC Group completed the acquisition of MAA Takakful Berhad, resulting in an increase of goodwill of USD 62 million and of PVFP of USD 36 million. An additional increase of goodwill of USD 13 million relates to the acquisition of Kono Insurance Limited. For further details to these acquisitions, please refer to note 5.

For the year ended December 31, 2016, divestments and transfers include a USD 7 million reclassification to assets held for sale and re-measurements of goodwill and distribution agreements for Zurich Insurance Middle East of USD 33 million and USD 3 million, respectively (see note 5).

Following a review, software was identified, which was not utilized as originally expected, resulting in USD 41 million of impairments, primarily in General Insurance.

Intangible assets by segment – current period

Table 14.2							
in USD millions, as of December 31,	Attorney-						
2016	in-fact			Distribution			
	contracts	Goodwill	PVFP	agreements	Software	Other	Total
General Insurance	_	808	_	744	591	127	2,269
Global Life	_	168	504	1,969	390	1	3,032
Farmers	1,025	819	-	_	370	_	2,215
Other Operating Businesses	_	_	-	_	99	_	99
Net carrying value as of							
December 31, 2016	1,025	1,795	504	2,713	1,450	128	7,615

	Table 14.3							
Intangible assets –	in USD millions	Attorney-						
prior period		in-fact			Distribution			
		contracts	Goodwill	PVFP	agreements	Software	Other	Total
	Gross carrying value as of							
	January 1, 2015	1,025	1,778	2,701	4,480	4,582	186	14,753
	Less: accumulated amortization/							
	impairments		(117)	(2,145)	(903)	(3,039)	(133)	(6,338)
	Net carrying value as of							
	January 1, 2015	1,025	1,661	556	3,577	1,542	53	8,415
	Additions and acquisitions		8		9	480	4	501
	Divestments and transfers				(11)			(11)
	Amortization			(69)	(206)	(342)	(8)	(625)
	Amortization charged to							
	shareholders' equity			28	_			28
	Impairments		(281)	_	(1)	(96)		(378)
	Foreign currency translation							
	effects		(99)	(48)	(618)	(79)	(5)	(849)
	Net carrying value as of							
	December 31, 2015	1,025	1,289	466	2,752	1,505	43	7,080
	Plus: accumulated amortization/							
	impairments		378	2,035	963	3,161	130	6,666
	Gross carrying value as of							
	December 31, 2015	1,025	1,667	2,501	3,715	4,666	173	13,746

As of December 31, 2015, intangible assets relating to non-controlling interests were USD 94 million for the present value of future profits (PVFP) of acquired insurance contracts, USD 1,221 million for distribution agreements and USD 31 million for software.

Additions to goodwill of USD 8 million relate to the acquisition of Tennyson Insurance Limited, which is a general insurance company based in the UK.

Following a review of subsidiaries in Global Life, the ZIC Group reassessed the recoverability of the goodwill and concluded that USD 281 million was fully impaired of which USD 232 million related to the goodwill of the Global Life Germany cash generating unit (CGU) as a result of the continued low interest rate environment in Germany.

Following restructuring decisions, mainly in Global Life, certain software will no longer be required, which resulted in an impairment of USD 67 million. In addition, software was identified, which was not utilized as originally expected, resulting in USD 30 million of impairments.

**Intangible assets** by segment prior period

Table 14.4							
in USD millions,	Attorney-						
as of December 31, 2015	in-fact			Distribution			
	contracts	Goodwill	PVFP	agreements	Software	Other	Total
General Insurance	_	465	_	713	629	42	1,849
Global Life	_	5	466	2,039	394	1	2,905
Farmers	1,025	819	_	_	353	-	2,197
Other Operating Businesses	_	_	_	_	129	-	129
Net carrying value as of							
December 31, 2015	1,025	1,289	466	2,752	1,505	43	7,080

## 15. Receivables and other assets

Receivables and other assets

Table 15		
in USD millions, as of December 31	2016	2015
Financial assets		
Group derivative assets	967	1,114
Unit-linked derivative assets	26	7
Receivables from policyholders	3,139	3,035
Receivables from insurance companies, agents and intermediaries	4,860	4,877
Receivables arising from ceded reinsurance	1,432	926
Reverse repurchase agreements	970	193
Amounts due from investment brokers	562	327
Other receivables	2,054	1,921
Allowance for impairments <sup>1</sup>	(230)	(249)
Other assets	86	143
Non-financial assets		
Current tax receivables	641	736
Accrued premiums	826	953
Prepaid expenses	432	275
Prepaid insurance benefits	331	327
Other assets	339	337
Total receivables and other assets	16,435	14,921

<sup>&</sup>lt;sup>1</sup> December 31, 2016 and 2015 include USD 30 million and USD 38 million, respectively, for receivables arising from ceded reinsurance.

Receivables are carried at notional amounts, and are generally settled within one year. The notional and fair value amounts are not significantly different.

## 16. Other liabilities

## Other liabilities

Table 16.1		
in USD millions, as of December 31	2016	2015
Other financial liabilities	2010	2013
Group derivative liabilities	344	356
Unit-linked derivative liabilities	9	7
	694	730
Amounts due to policyholders		
Amounts due to insurance companies, agents and intermediaries	1,141	1,022
Amounts due to reinsurers	1,827	1,285
Liabilities for cash collateral received for securities lending	126	93
Amounts due to investment brokers	1,151	1,179
Collateralized bank financing for structured lease vehicles	541	736
Liabilities for defined benefit plans <sup>1</sup>	4,317	3,248
Other liabilities for employee benefit plans	420	127
Other liabilities	3,818	3,817
Other non-financial liabilities		
Current tax payables	541	613
Restructuring provisions	331	376
Premium prepayments and other advances	866	864
Other liabilities	1,030	2,214
Total other liabilities	17,155	16,669

<sup>&</sup>lt;sup>1</sup> See note 20

Table 16.2 shows the maturity schedule of other financial liabilities as of December 31, 2016 and 2015.

## Maturity schedule other financial liabilities<sup>1</sup>

Table 16.2				
in USD millions, as of December 31		2016		2015
	Carrying	Undiscounted	Carrying	Undiscounted
	value <sup>2</sup>	cash flows <sup>3</sup>	value <sup>2</sup>	cash flows <sup>3</sup>
< 1 year	9,148	9,192	8,433	8,487
1 to 2 years	58	96	120	173
2 to 3 years	271	305	48	92
3 to 4 years	170	238	347	388
4 to 5 years	9	25	89	161
> 5 years	413	757	315	631
Total	10,070	10,615	9,353	9,933

Excluding liabilities for defined benefit plans.
 Allocation to the time bands is based on the expected maturity date.
 Allocation to the time bands is based on the earliest contractual maturity.

# Restructuring provisions

Table 16.3		
in USD millions	2016	2015
As of January 1	376	125
Provisions made during the period	257	457
Increase of provisions set up in prior years	89	11
Provisions used during the period	(349)	(181)
Provisions reversed during the period	(33)	(20)
Foreign currency translation effects	(9)	(14)
As of December 31	331	376

During the year ended December 31, 2016, restructuring programs were initiated with estimated costs of USD 257 million impacting General Insurance, Other Operating Businesses and Global Life. In addition, net adjustments were made of USD 56 million to provisions for restructuring programs initiated in prior years.

During the year ended December 31, 2015, restructuring programs were initiated with estimated costs of USD 457 million impacting mainly Europe, for both General Insurance and Global Life. In addition, net adjustments were made of USD (9) million to provisions for restructuring programs initiated in the years prior to 2015.

### 17. Income taxes

Income tax expense – current/deferred split

Table 17.1		
in USD millions, for the years, ended December 31	2016	2015
Current	1,455	1,254
Deferred	348	18
Total income tax expense/(benefit)	1,802	1,273

Expected and actual income tax expense

Table 17.2				
in USD millions, for the years ended December 31	Rate	2016	Rate	2015
Net income before income taxes		5,031		3,383
less: income tax (expense)/benefit attributable to policyholders		(304)		(110)
Net income before income taxes attributable to shareholders		4,727		3,273
Expected income tax expense attributable to shareholders				
computed at the Swiss statutory tax rate	22.0%	1,040	22.0%	720
Increase/(reduction) in taxes resulting from:				
Tax rate differential in foreign jurisdictions		324		283
Tax exempt and lower taxed income		(95)		(92)
Non-deductible expenses		121		41
Tax losses not recognized		38		162
Prior year adjustments and other		71		49
Actual income tax expense attributable to shareholders	31.7%	1,498	35.5%	1,163
plus: income tax expense/(benefit) attributable to policyholders		304		110
Actual income tax expense	35.8%	1,802	37.6%	1,273

Table 17.2 sets out the factors that cause the actual income tax expense to differ from the expected expense computed by applying the Swiss statutory tax rate of 22.0 percent, which is the rate applicable in the jurisdiction where the ultimate parent company is resident.

The ZIC Group is required to record taxes on policyholder earnings for life insurance policyholders in certain jurisdictions. Accordingly, the income tax expense or benefit attributable to these life insurance policyholder earnings is included in income tax expense. In certain jurisdictions an accrual for future policy fees that will cover the tax charge is included in insurance benefits and losses.

Taxes paid by certain of the ZIC Group's life insurance businesses are based on the investment result less allowable expenses. To the extent these taxes exceed the amount that would have been payable in relation to the shareholders' share of taxable profits, it is normal practice for certain of the ZIC Group's businesses to recover this portion from policyholders. While the relevant company has the contractual right to charge policyholders for the taxes attributable to their share of the investment result less expenses, the obligation to pay the tax authority rests with the company and therefore, the full amount of tax including the portion attributable to policyholders is accounted for as income tax. Income tax expense therefore includes an element attributable to policyholders. In addition, deferred tax on unrealized gains related to certain investment contracts with DPF is included as income tax expense recognized in OCI and an accrual for future policy fees to recover the tax charge is included in policy fee revenue.

Deferred tax assets/(liabilities) analysis by source

Table 17.3				
in USD millions, as of December 31		2016		2015
	Assets	Liabilities	Assets	Liabilities
Gross deferred tax				
Deferred acquisition and origination costs	38	(1,017)	35	(846)
Depreciable and amortizable assets	25	(63)	31	(51)
Life policyholders' benefits and deposits <sup>1</sup>	1	(2)	2	(1)
Unrealized (gains)/losses on available-for-sale investments				
and cash flow hedges	92	(273)	177	(379)
Accruals and deferred income	197	(8)	158	(2)
Reserves for losses and loss adjustment expenses	449	(229)	508	(178)
Reserves for unearned premiums	1,057	(24)	879	(1)
Pensions and other employee benefits	696	(48)	514	(58)
Other assets/liabilities	285	(45)	427	(44)
Tax loss carryforwards	695	_	550	_
Gross deferred tax assets/(liabilities)				
before valuation allowance	3,537	(1,709)	3,281	(1,558)
Valuation allowance	(357)	_	(269)	_
Gross deferred tax assets/(liabilities)				
after valuation allowance	3,180	(1,709)	3,012	(1,558)
Deferred tax assets	1,470		1,454	
Gross deferred tax				
Deferred acquisition and origination costs	27	(2,189)	42	(2,282)
Depreciable and amortizable assets	113	(1,964)	129	(1,980)
Life policyholders' benefits and deposits <sup>1</sup>	1,350	(793)	1,286	(840)
Unrealized (gains)/losses on available-for-sale investments				
and cash flow hedges	165	(1,038)	210	(1,029)
Accruals and deferred income	124	(92)	133	(103)
Reserves for losses and loss adjustment expenses	56	(85)	87	(87)
Reserves for unearned premiums	31	(40)	33	(90)
Deferred front-end fees	471	_	468	_
Pensions and other employee benefits	616	(319)	594	(269)
Other assets/liabilities	462	(1,546)	637	(1,504)
Tax loss carryforwards	92	_	107	_
Gross deferred tax assets/(liabilities)				
before valuation allowance	3,505	(8,067)	3,725	(8,184)
Valuation allowance	-	_	(23)	
Gross deferred tax assets/(liabilities)				
after valuation allowance	3,505	(8,067)	3,702	(8,184)
Deferred tax liabilities		(4,562)		(4,482)
Net deferred tax liabilities		(3,091)		(3,028)

<sup>&</sup>lt;sup>1</sup> Includes reserves for unit-linked contracts

The ZIC Group's deferred tax assets and liabilities are recorded by its tax paying entities throughout the world, which may include several legal entities within each tax jurisdiction. Legal entities are grouped as a single taxpayer only when permitted by local legislation and when deemed appropriate. The first part of table 17.3 includes single taxpayers with a net deferred tax asset position and the second part includes single taxpayers with a net deferred tax liability position.

As of December 31, 2016 and 2015, the aggregate amount of temporary differences associated with investments in subsidiaries, branches and associates and interests in joint ventures, for which deferred tax liabilities have not been recognized amount to approximately USD 1 billion and USD 2 billion, respectively. In the remote scenario in which these temporary differences were to reverse simultaneously, the resulting tax liabilities would be very limited due to participation exemption rules.

Developmen	t of
net deferred	tax
liabilities	

Table 17.4		
in USD millions	2016	2015
As of January 1	(3,028)	(3,449)
Net change recognized in the income statement	(348)	(18)
Net change recognized in equity	207	215
Net changes due to acquisitions/(divestments)	(12)	(1)
Foreign currency translation effects	89	225
As of December 31	(3,091)	(3,028)
attributable to policyholders	(632)	(562)
attributable to shareholders	(2,460)	(2,466)

The net deferred tax liabilities relating to non-controlling interests amounted to USD 338 million and USD 347 million as of December 31, 2016 and 2015, respectively.

Development of deferred income taxes included in equity

Table 17.5		
in USD millions	2016	2015
As of January 1	134	(111)
Net unrealized gains/(losses) on available-for-sale investments	(38)	394
Cash flow hedges	(23)	(15)
Revaluation reserve	(2)	(2)
Net actuarial gains/(losses) on pension plans	270	(162)
Foreign currency translation effects	(43)	29
As of December 31	297	134

# Tax loss carryforwards and tax credits

Table 17.6		
in USD millions, as of December 31	2016	2015
For which deferred tax assets have been recognized, expiring		
< 5 years	28	57
5 to 20 years	412	408
> 20 years or with no time limitation	1,175	805
Subtotal	1,614	1,271
For which deferred tax assets have not been recognized, expiring		
< 5 years	62	64
5 to 20 years	155	89
> 20 years or with no time limitation	878	826
Subtotal	1,095	980
Total	2,710	2,250

The tax rates applicable to tax losses for which a deferred tax asset has not been recognized are 26.2 percent and 27.6 percent as of December 31, 2016 and 2015, respectively.

The recoverability of the deferred tax asset for each taxpayer is based on the taxpayer's ability to utilize the deferred tax asset. This analysis considers the projected taxable income to be generated by the taxpayer, as well as its ability to offset the deferred tax asset against deferred tax liabilities.

Management assesses the recoverability of the deferred tax asset carrying values based on future years taxable income projections and considers that the carrying values of the deferred tax assets as of December 31, 2016, are recoverable.

## 18. Senior and subordinated debt

**Senior and** subordinated debt

10. Seriioi aria saborairi	ated debt		
Table 18.1			
in USD millions, as of December 31		2016	2015
Senior debt			
Zurich Insurance Company Ltd	Floating rate CHF 200 million notes, due June 2016 <sup>1</sup>	_	200
	2.25% CHF 500 million notes, due July 2017 <sup>1</sup>	492	498
	2.375% CHF 525 million notes, due November 2018 <sup>1</sup>	515	522
	1.50% CHF 400 million notes, due June 2019 <sup>1,2</sup>	405	415
	1.125% CHF 400 million notes, due September 2019 <sup>1,2</sup>	409	420
	0.625% CHF 250 million notes, due July 2020 <sup>1,2</sup>	254	259
	2.875% CHF 250 million notes, due July 2021	244	247
	3.375% EUR 500 million notes, due June 2022 <sup>1,2,3</sup>	564	587
	1.875% CHF 100 million notes, due September 2023 <sup>1,2</sup>	109	111
	1.750% EUR 500 million notes, due September 2024 <sup>1,2,3</sup>	538	545
	1.500% CHF 150 million notes, due July 2026 <sup>1,2</sup>	163	164
	Various debt instruments payable within 1 year to related parties <sup>5</sup>	77	184
Zurich Holding Comp. of America Inc	Euro Commercial Paper Notes, due in less than 3 months	399	400
Zurich Santander Insurance America S.L.	7.5% EUR 61 million loan, due December 2035	44	74
Other	Various debt instruments	24	29
Senior debt	various debt instruments	4,239	4,656
Subordinated debt		4,239	4,030
	4 250/ CUE 700 million pownetual notes first callable May 20161		600
Zurich Insurance Company Ltd	4.25% CHF 700 million perpetual notes, first callable May 2016 <sup>1</sup>	_	698
	8.25% USD 500 million perpetual capital notes,	400	400
	first callable January 2018 <sup>1,3</sup>	499	498
	4.625% CHF 500 million perpetual notes,	404	100
	first callable May 2018 <sup>1</sup>	491	496
	7.5% EUR 425 million notes, due July 2039,		4.50
	first callable July 2019 <sup>1,3</sup>	447	460
	2.75% CHF 225 million perpetual capital notes,		
	first callable June 2021 <sup>1</sup>	221	_
	2.75% CHF 200 million perpetual capital notes,		
	first callable September 2021 1,2	205	209
	4.75% USD 1 billion perpetual notes,		
	first callable January 2022 <sup>1,3</sup>	993	
	4.25% EUR 1 billion notes, due October 2043,		
	first callable October 2023 <sup>1,3</sup>	1,046	1,075
	4.25% USD 300 million notes, due October 2045,		
	first callable October 2025 <sup>1,3</sup>	299	298
	5.625% USD 1 billion notes, due June 2046,		
	first callable June 2026 <sup>1</sup>	996	_
	3.5% EUR 750 million notes, due October 2046,		
	first callable October 2026 <sup>1,2</sup>	785	_
	6.625% GBP 450 million perpetual notes,		
Zurich Finance (UK) plc	first callable October 2022 <sup>1,4</sup>	551	658
·	Series II 6.45% USD 700 million Trust Preferred Securities		
ZFS Finance (USA) Trust II	(ECAPS), due December 2065, first callable June 2016	_	680
	Series V 6.5% USD 501 million Trust Preferred Securities,		
ZFS Finance (USA) Trust V	due May 2067, first callable May 2017	501	501
Other	Various debt instruments	16	41
Subordinated debt		7,050	5,614
Total senior and subordinated debt		11,289	10,270
The second contract design and		/200	. 0,=, 0

Issued under the Zurich Insurance Group's Euro Medium Term Note Programme (EMTN Programme).

The ZIC Group applied the fair value hedge methodology either partially or in full to hedge the interest rate exposure.
 The SIC Group applied the fair value hedge methodology either partially or in full to hedge the interest rate exposure.
 These bonds are part of a qualifying net investment hedge to hedge the foreign currency exposure.
 The holders of these notes benefit from the Replacement Capital Covenant which states that if Series V Fixed/Floating Trust Preferred Securities, issued by ZFS Finance (USA) Trust V, are called before 2047, the ZIC Group will issue a replacement debt instrument with terms and provisions that will be as or more equity-like than the replaced notes.
 Loans with subsidiaries of Zurich Insurance Group which are not part of Zurich Insurance Company Group Ltd.

To facilitate the issuance of debt, the Zurich Insurance Group has in place a Euro Medium Term Note Programme (EMTN Programme) allowing for the issuance of senior and subordinated notes up to a maximum of USD 18 billion. All issuances under this programme are either issued or guaranteed by Zurich Insurance Company Ltd. The ZIC Group has also issued debt instruments outside this programme.

Debt issued is recognized initially at fair value of the consideration received, net of transaction costs incurred, and subsequently carried at amortized cost using the effective interest rate method.

	Table 18.2				
Maturity schedule of	in USD millions, as of December 31		2016		
outstanding debt		Carrying	Undiscounted	Carrying	Undiscounted
3		value	cash flows	value	cash flows
	< 1 year	1,469	1,903	2,168	2,544
	1 to 2 years	1,505	1,882	999	1,305
	2 to 3 years	1,262	1,586	1,516	1,771
	3 to 4 years	278	530	1,340	1,506
	4 to 5 years	670	947	259	405
	5 to 10 years	6,061	6,702	3,751	4,129
	> 10 years	44	120	238	281
	Total	11,289	13,669	10,270	11,941

Debt maturities reflect original contractual dates taking early redemption options into account. For call/redemption dates, see table 18.1. The total notional amount of debt due in each period is not materially different from the total carrying value disclosed in table 18.2. Undiscounted cash flows include interest and principal cash flows on debt outstanding as of December 31, 2016 and 2015. All debt is assumed to mature within 20 years of the balance sheet date without refinancing. Floating interest rates are assumed to remain constant as of December 31, 2016 and 2015. The aggregated cash flows are translated into U.S. dollars at end-of-period rates.

### **Credit facilities**

The ZIC Group has access to a multi-currency revolving credit facility of USD 3.2 billion that terminates in 2023 at the latest. It is guaranteed by Zurich Insurance Company Ltd.

The ZIC Group also has access to three other revolving credit facilities totaling USD 425 million, which will expire in 2019 at the latest.

No borrowings were outstanding under any of these facilities as of December 31, 2016 or 2015.

## 19. Share capital

Share capital and profit sharing certificates

Table 19		
number of shares, as of December 31	2016	2015
Contingent and issued share capital, CHF 10 par value	86,000,000	86,000,000
Issued share capital, CHF 10 par value	82,500,000	82,500,000
Profit sharing certificates (Genussscheine) <sup>1</sup>	2	2

<sup>&</sup>lt;sup>1</sup> These profit sharing certificates confer on their holder the right to receive a dividend if and to the extent the General Meeting decides. However, they do not confer on their holder any voting rights or rights associated thereto, any rights to subscribe for new shares, or any rights to liquidation proceeds.

#### a) Contingent share capital

At the General Meeting of Shareholders on June 11, 1997, a contingent capital of CHF 35,000,000, or 3,500,000 shares with a par value of CHF 10 each, was created, of which 2,500,000 shares can be issued in connection with the granting of conversion and/or option rights and 1,000,000 shares can be issued for the purpose of employees' share ownership plans. None of the contingent shares have been issued as of December 31, 2016 and December 31, 2015.

#### b) Profit sharing certificates

As of December 31, 2016 and 2015, Zurich Insurance Company Ltd had two profit sharing certificates with no par value issued.

#### c) Additional paid-in capital

On April 25, 2008, a subordinated loan agreement was entered into between Zurich Insurance Company Ltd and Zurich Group Holding, which was assumed by Zurich Insurance Group Ltd as a consequence of its merger with Zurich Group Holding. The remaining loan was CHF 4.8 billion (USD 4.9 billion) and CHF 4.8 billion (USD 5.0 billion) as of December 31, 2016 and 2015, respectively.

The loan is undated and pays interest subject to solvency thresholds and the payment of interest is optional if Zurich Insurance Company Ltd does not declare or pay any dividends or other profit distributions to its shareholders. The loan is classified as an equity instrument under IFRS as it meets the classification criteria as such under IAS 32.

## 20. Employee benefits

Personnel and other related costs incurred for the years ended December 31, 2016 and 2015, were USD 5,623 million and USD 5,967 million, including wages and salaries of USD 4,554 million and USD 4,771 million, respectively.

The ZIC Group operates a number of retirement benefit arrangements for employees, with the majority of employees belonging to defined benefit pension plans. Other employees participate in defined contribution plans, which provide benefits equal to the amounts contributed by both the employer and the employee plus investment returns.

Certain of the ZIC Group's operating companies also provide post-employment benefit plans covering medical care and life insurance, mainly in the U.S. Eligibility for these plans is generally based on completion of a specified period of eligible service and reaching a specified age. The plans typically pay a stated percentage of medical expenses subject to deductibles and other factors. The cost of post-employment benefits is accrued during the employees' service periods.

Governance of the ZIC Group's pension and post-employment benefit plans is the responsibility of the Group Pensions Committee. This committee is responsible for developing, reviewing and advising on the ZIC Group governance framework for matters relating to pension and benefit plans, including the relevant policies and processes. The committee provides oversight and guidance over the ZIC Group's principal pension and post-retirement benefit plans for benefit design, funding, investment purposes and accounting. This includes, but is not limited to:

- → Oversight of the impact of the ZIC Group's principal defined benefit pension and post-retirement benefit plans in terms of cash, expense, and balance sheet accounting impact and capital implications
- → Development and maintenance of policies on funding, asset allocation and assumption setting.

The Group Pensions Committee provides a point of focus and co-ordination on the topic of pensions and benefits at ZIC Group level for the supervision and exercise of company powers and obligations in relation to pension and benefit plans.

The ZIC Group's policy on funding and asset allocation is subject to local legal and regulatory requirements and tax efficiency.

### a) Defined benefit pension plans

Employees of the ZIC Group's companies are covered by various pension plans, the largest of which are in Switzerland, the UK, the U.S. and Germany, which together comprise over 90 percent of the ZIC Group's total defined benefit obligation. The remaining plans in other countries are not individually significant, therefore no separate disclosure is provided.

Certain ZIC Group companies provide defined benefit pension plans, some of which provide benefits on retirement, death or disability related to employees' service periods and pensionable earnings. Others provide cash balance plans where the participants receive the benefit of the accumulated employer and employee contributions (where paid) together with additional cash credits in line with the rules of the plan. Eligibility for participation in the various plans is either immediate on commencement of employment or based on completion of a specified period of continuous service.

Most of the ZIC Group's defined benefit pension plans are funded through contributions by the ZIC Group and, in some cases also by employees, to investment vehicles managed by trusts or foundations independent of the ZIC Group's finances, or by management committees with fiduciary responsibilities. Where a trust or foundation exists, it is required by law or by articles of association to act in the interests of the fund and of all relevant beneficiaries to the plan, which can also include the sponsoring company, and is responsible for the investment policy with regard to the assets of the fund. The trust/foundation board or committee is usually composed of representatives from both employers and plan members. In these cases, the annual funding requirements are determined in accordance with the ZIC Group's overall funding policy and local regulation. Independent actuarial valuations for the plans are performed as required. It is the ZIC Group's general principle to ensure that the plans are appropriately funded in accordance with local pension regulations in each country.

The pension plans typically expose the company to risks such as interest rate, price inflation, longevity and salary risks. To the extent that pension plans are funded, the assets held mitigate some of the liability risk but introduce investment risk.

The overall investment policy and strategy for the ZIC Group's defined benefit pension plans is to achieve an investment return which, together with contributions, targets having sufficient assets to pay pension benefits as they fall due while also mitigating the various risks in the plans. The actual asset allocation is determined by reference to current and expected economic and market conditions and in consideration of specific asset class risk in the risk profile. The ZIC Group has a governance framework to ensure the trust/foundation board or committee considers how the asset investment strategy correlates with the maturity profile of the plan liabilities and the potential impact on the funding status of the plans, including short-term liquidity requirements. The investment strategies for each pension plan are independently determined by the governance body in each country, with oversight by the Group Pensions Committee. The pension assets are invested in diversified portfolios across geographical regions and asset classes to ensure diversified returns, also taking into account local pension laws. The investment strategies aim to mitigate asset-liability mismatches in the long run.

For post-employment defined benefit plans, total contributions to funded plans and benefits paid directly by the ZIC Group were USD 424 million for 2016 compared with USD 540 million for 2015. The estimated total for 2017 is USD 422 million (actual amount may differ).

#### Swiss pension plan

The plan provides benefits that exceed the minimum benefit requirements under Swiss pension law. It provides a lifetime pension to members at the normal retirement age of 65 (age 62 for Executive Staff). Participants can draw retirement benefits early from age 60 (age 58 for Executive Staff). Alternatively, the benefit can be taken as a lump sum payment at retirement. Contributions to the plan are paid by the employees and the employer, both for retirement savings and to finance risk benefits paid out in the event of death and disability. The accumulated balance on the pension account is based on the employee and employer pension contributions and interest accrued. The interest rate credited is defined annually by the plan's Board of Trustees which is responsible for the governance of the plans. The amount of pension payable on retirement is a result of the conversion rate applied on the accumulated balance of the individual participant's pension account at the retirement date. Although the Swiss plan operates like a defined contribution plan under local regulations, it is accounted for as a defined benefit pension plan under IAS 19 "Employee Benefits", because of the need to accrue interest on the pension accounts and the payment of a lifetime pension at a fixed conversion rate under the plan rules.

Actuarial valuations are completed regularly and if the plan becomes underfunded under local regulations, options for dealing with this include the ZIC Group paying additional contributions into the plan and/or reducing future benefits. At present, the plan is sufficiently funded, meaning that no additional contributions into the plans are expected to be required in the next year. The investment strategy of the Swiss plan is constrained by Swiss pension law including regulations relating to diversification of plan assets. Under IAS 19, volatility arises in the Swiss pension plan net liability because the fair value of the plan assets is not directly correlated to movements in the value of the plan's defined benefit obligation in the short-term.

#### UK pension plan

The major UK pension plan is a hybrid arrangement and benefits accrued to December 31, 2015 increase in line with salary increases. Normal retirement age for the plan is 60. The plan is split into distinct sections and the two defined benefit sections are closed to new entrants and, with effect from January 1, 2016, to future benefit accrual. All employees now participate in a defined contribution section within the same trust. The notes that follow consider only the defined benefit sections. The UK Pension Trustee Board is responsible for the governance of the plan. The employer contributions are determined based on regular triennial actuarial valuations which are conducted using assumptions agreed by the Trustee Board and the sponsoring company. A valuation was carried out during 2013 and the results were finalized on August 28, 2014. The local statutory valuation revealed a funding deficit and an asset-backed funding arrangement was agreed with the Trustee Board. The effective date of the next valuation is 30 June 2016 and it will be finalized during 2017.

The ongoing funding of the plan is closely monitored by the Trustee Board and a dedicated funding committee is made up of representatives from the Trustee Board and the ZIC Group. The plan rules and UK pension legislation set out maximum levels of inflationary increases applied to plan benefits. The plan assets are invested in diversified classes of assets and a portion are invested in inflation-linked debt securities, to provide a partial hedge against inflation. The Trustees have also implemented an interest rate swap contract which will provide partial protection against volatility in interest rates.

#### U.S. pension plans

There are two major pension plans in the U.S., the Zurich North America (ZNA) plan and the Farmers Group, Inc. (FGI) pension plan. These are both cash balance pension plans funded entirely by the participating employers. The ZNA plan is entirely cash balance and the FGI pension plan provides benefits on a cash balance pension formula for benefits accruing after January 1, 2009, except with respect to certain grandfathered participants. A final average pay defined benefit formula applies for the grandfathered participants. For both cash balance plans, an amount is credited to the cash balance plan each quarter, determined by an employee's age, service and their level of earnings up to and above the social security taxable wage base. The minimum annual interest earned on the account balance is 5 percent. The retirement account is available from age 65, or age 55 with five years of service. The benefit can be taken as a monthly annuity or as a lump sum. Both the ZNA plan and the FGI pension plan have fiduciaries as required under local pension laws. The fiduciaries are responsible for the governance of the plans. Actuarial valuations are completed regularly and the ZIC Group has historically elected to make contributions to the plans to maintain a funding ratio of at least 90 percent as valued under local pension regulations. The annual employer contributions are equal to the present value of benefits accrued each year, plus a rolling amortization of any prior underfunding. The FGI plan will be frozen with effect from December 31, 2018 following a decision late in 2016. The impact of this is reflected in the 2016 financial disclosures. Farmers Group employees will earn only defined contribution retirement benefits starting January 1, 2019.

#### German pension plans

There are a number of legacy defined benefit plans in Germany, most of which were set up under works council agreements. In 2007, a contractual trust arrangement was set up to support all pension commitments of the employing companies in Germany. From this time, new contributions to the contractual trust arrangement relate to the pension payment refund of the employer companies. A separate arrangement was also established in 2010 to provide for retirement obligations that were in payment at that time. Consideration is given from time to time based on the fiscal efficiency of adding recent retirees to this arrangement and to adding assets to the contractual trust. There is currently no formal plan to pay any further contributions to the contractual trust arrangement. These defined benefit plans provide benefits on either a final salary, career average salary or a cash balance basis. These plans are now closed to new entrants, who instead participate in a new cash balance arrangement, which has the characteristics of a defined contribution arrangement with a capital guarantee on members' balances, which mirrors the capital guarantee given in a conventional life insurance arrangement in Germany.

Tables 20.1a and 20.1b set out the reconciliation of the defined benefit obligation and plan assets for the ZIC Group's post-employment defined benefit plans.

Movement in defined benefit obligation and fair value of assets – current period

Table 20.1a				
in USD millions	Defined			Net defined
In USD millions				
	benefit	Fair value of		benefit asset/
•	obligation	assets	Asset ceiling	(liability)
As of January 1, 2016	(20,945)	17,713	(17)	(3,248)
Net post-employment benefit (expense)/income:				
Current service cost	(287)	_		(287)
Interest (expense)/income	(526)	442	_	(85)
Settlements gains/(losses)	3	_	_	3
Past service (cost)/credit	88	_	_	88
Net post-employment benefit (expense)/income	(722)	442	_	(280)
Re-measurement effects included in				
other comprehensive income:				
Return on plan assets excluding interest income	_	1,712	_	1,712
Experience gains/(losses)	(44)	_	_	(44)
Actuarial gains/(losses) arising from changes				
in demographic assumptions	19	_	_	19
Actuarial gains/(losses) arising from changes				
in financial assumptions	(3,307)	_	_	(3,307)
Change in asset ceiling	_	_	7	7
Re-measurement effects included in				
other comprehensive income	(3,332)	1,712	7	(1,613)
Employer contributions	-	404	_	404
Employer contributions paid to meet benefits directly	33	_	_	33
Plan participants' contributions	(54)	54	_	_
Payments from the plan (incl. settlements)	769	(769)	_	_
Foreign currency translation effects	2,060	(1,672)	_	388
As of December 31, 2016	(22,191)	17,883	(9)	(4,317)

Movement in defined benefit obligation and fair value of assets – prior period

Table 20.1b				
in USD millions	Defined			Net defined
	benefit	Fair value of		benefit asset/
	obligation	assets	Asset ceiling	(liability)
As of January 1, 2015	(22,507)	18,461	_	(4,046)
Net post-employment benefit (expense)/income:				
Current service cost	(398)	_	_	(398)
Interest (expense)/income	(640)	520	_	(120)
Settlements gains/(losses)	9	_	_	9
Past service (cost)/credit	(9)	_	_	(9)
Net post-employment benefit (expense)/income	(1,038)	520	_	(518)
Re-measurement effects included in				
other comprehensive income:				
Return on plan assets excluding interest income	_	(209)	_	(209)
Experience gains/(losses)	(116)	_	_	(116)
Actuarial gains/(losses) arising from changes				
in demographic assumptions	172	_	_	172
Actuarial gains/(losses) arising from changes				
in financial assumptions	797	_	_	797
Change in asset ceiling	_	_	(17)	(17)
Re-measurement effects included in				
other comprehensive income	853	(209)	(17)	627
Employer contributions	_	508	_	508
Employer contributions paid to meet benefits directly	31	_	_	31
Plan participants' contributions	(54)	54	_	_
Payments from the plan (incl. settlements)	870	(870)	_	_
Foreign currency translation effects	900	(750)	_	150
As of December 31, 2015	(20,945)	17,713	(17)	(3,248)

Net post-employment benefit (expense)/income is recognized in other employee benefits, which is included within administrative and other operating expense.

Post-employment benefits are long-term by nature. However, short-term variations between long-term actuarial assumptions and actual experience may be positive or negative, resulting in actuarial gains or losses, which are recognized in full in the period in which they occur, and are included within other comprehensive income.

Table 20.2 provides a breakdown of plan assets by asset class.

Fair value of assets held in funded defined benefit pension plans

Table 20.2								
in USD millions, as of December 31				2016				2015
	Quoted in				Quoted in			
	active			% of	active			% of
	markets	Other	Total	Total	markets	Other	Total	Total
Cash and cash equivalents	542	_	542	3%	472	_	472	3%
Equity securities	3,794	88	3,882	22%	3,726	69	3,795	21%
Debt securities	_	11,839	11,839	66%	_	11,929	11,929	67%
Investment property	_	1,318	1,318	7%	_	1,177	1,177	7%
Mortgage loans	-	295	295	2%	_	333	333	2%
Other assets <sup>1</sup>	-	7	7	_	_	7	7	_
Total	4,336	13,547	17,883	100%	4,198	13,515	17,713	100%

<sup>1</sup> UK annuity policies

For the classification of pension assets the ZIC Group follows the same principles as outlined in note 23 (Fair value measurement). Assets meeting the criteria of Level 1 are generally considered quoted in active markets, while assets meeting the criteria of Level 2 or Level 3 are generally considered other assets.

As a matter of policy, pension plan investment guidelines do not permit investment in any assets in which the ZIC Group or its subsidiaries have an interest, including shares or other financial instruments issued and own use property. Exceptions to the policy require approval by the Group Pensions Committee.

Tables 20.3a and 20.3b provide a breakdown of the key information included in tables 20.1a and 20.1b for the main countries for the years ended December 31, 2016 and 2015 respectively.

Key information by main country – current period

Table 20.3a						
in USD millions, as of December 31, 2016		United	United			
	Switzerland	Kingdom	States	Germany	Other	Total
Defined benefit obligation	(5,094)	(11,049)	(3,530)	(1,260)	(1,257)	(22,191)
Fair value of plan assets	4,711	8,488	2,687	1,014	983	17,883
Impact of asset ceiling	_	(9)	_	_	-	(9)
Net defined benefit asset/(liability)	(383)	(2,570)	(843)	(246)	(275)	(4,317)
Net post-employment benefit (expense)/income <sup>1</sup>	(124)	(65)	(28)	(34)	(29)	(280)

<sup>&</sup>lt;sup>1</sup> Following plan amendments in Farmers a one-off curtailment gain of USD 96 million has been reflected as a reduction in expenses.

Key information by main country – prior period

	United	United			
		Sinted			
zerland	Kingdom	States	Germany	Other	Total
5,042)	(10,160)	(3,410)	(1,173)	(1,159)	(20,945)
4,615	8,705	2,495	965	932	17,713
-	(17)	_	_	_	(17)
(427)	(1,471)	(915)	(208)	(227)	(3,248)
(130)	(180)	(137)	(38)	(33)	(518)
	4,615 – <b>(427)</b>	4,615 8,705 - (17) <b>(427) (1,471)</b>	4,615     8,705     2,495       -     (17)     -       (427)     (1,471)     (915)	4,615     8,705     2,495     965       -     (17)     -     -       (427)     (1,471)     (915)     (208)	4,615     8,705     2,495     965     932       -     (17)     -     -     -       (427)     (1,471)     (915)     (208)     (227)

Table 20.4 shows the key financial assumptions used to calculate the ZIC Group's post-employment defined benefit obligations and the ZIC Group's post-employment benefit expenses.

Key financial assumptions used for major plans

Table 20.4								
as of December 31				2016				2015
		United	United			United	United	
	Switzerland	Kingdom	States	Germany	Switzerland	Kingdom	States	Germany
Discount rate	0.6%	2.6%	4.0%	1.7%	0.8%	3.8%	4.3%	2.2%
Inflation rate (CPI) <sup>1</sup>	1.2%	2.2%	2.0%	1.8%	1.3%	2.1%	2.0%	1.6%
Salary increase rate	1.5%	3.2%	4.5%	3.1%	1.6%	3.1%	4.4%	2.9%
Expected future								
pension increases	0.7%	3.4%	n/a	1.8%	0.7%	3.4%	n/a	1.6%
Interest crediting rate	0.6%	n/a	5.0%	n/a	0.8%	n/a	5.0%	n/a

<sup>&</sup>lt;sup>1</sup> In the UK part of the liability is linked to the inflation measure of the Retail Price Index (RPI), which is assumed to be 1.0 percent higher than the Consumer Price Index (CPI) as of both December 31, 2016 and 2015.

Tables 20.5a and 20.5b set out the life expectancies used in the valuation of the ZIC Group's major plans. The mortality assumptions in each country have been based on mortality tables in accordance with typical practice in that country.

Mortality tables and life expectancies for major plans – current period

Table 20.5a					
in years, as of December 31, 2016		Life expectancy at age 65		Life expectancy at age 65	
		for a m	nale currently	for a female currently	
		aged 65	aged 45	aged 65	aged 45
Country	Mortality table for major plans				
Switzerland	BVG 2015 Generational	22.38	24.26	24.43	26.29
	PNXA00 with CMI_2015 projection				
United Kingdom	with plan specific adjustments	22.82	24.12	24.82	26.32
	RP 2014 with MP-2016				
	Generational projection				
	and white collar adjustment	22.36	23.92	25.57	27.14
	RP 2014 with plan specific				
United States	adjustments	20.65	20.65	22.67	22.67
Germany	Heubeck 2005G	19.13	21.77	23.19	25.70

Mortality tables and life expectancies for major plans – prior period

in years, as of December 31, 2015		Life expectancy at age 65		Life expectancy at age 65	
	for a	male currently	for a female currently		
	aged 65	aged 45	aged 65	aged 45	
ty table for major plans					
0 Generational	21.49	23.24	23.96	25.67	
with CMI_2015 projection	22.82	24.13	24.83	26.33	
with MP-2015					
onal projection					
n specific adjustments	21.36	22.02	23.82	24.50	
: 2005G	18.99	21.64	23.06	25.58	
	0 Generational with CMI_2015 projection with MP-2015 onal projection a specific adjustments	for a aged 65  sy table for major plans 0 Generational 21.49 with CMI_2015 projection 22.82 with MP-2015 onal projection a specific adjustments 21.36	for a male currently aged 65 aged 45  by table for major plans 0 Generational 21.49 23.24 with CMI_2015 projection 22.82 24.13 with MP-2015 onal projection a specific adjustments 21.36 22.02	for a male currently aged 65         for a fee aged 45         aged 65           sy table for major plans           0 Generational         21.49         23.24         23.96           with CMI_2015 projection         22.82         24.13         24.83           with MP-2015 onal projection         a specific adjustments         21.36         22.02         23.82	

Table 20.6 shows the expected benefits to be paid under the ZIC Group's major plans in the future. It should be noted that actual amounts may vary from expected amounts. Therefore future benefit payments may differ from the amounts shown.

<b>Maturity profile</b>
of future benefit
payments for
major plans

Table 20.6								
as of December 31				2016				2015
		United	United			United	United	
	Switzerland	Kingdom	States	Germany	Switzerland	Kingdom	States	Germany
Duration of the defined								
benefit obligation (in years)	16.0	21.7	13.2	14.7	16.4	21.0	13.6	14.7
Maturity analysis of								
benefits expected to be								
paid (in USD millions):								
< 1 year	213	219	215	45	151	253	195	47
1 to 5 years	856	996	907	197	650	1,178	839	192
5 to 10 years	1,085	1,602	1,168	257	929	1,913	1,176	256

Sensitivity analysis of significant actuarial assumptions

Table 20.7			
	Defined ben	Defined benefit obligation <sup>1</sup>	
in USD millions, as of December 31	2016	2015	
Discount rate +50 bps	1,897	1,742	
Discount rate –50 bps	(2,190)	(1,997)	
Salary increase rate +50 bps	(117)	(155)	
Salary decrease rate –50 bps	109	148	
Price inflation increase rate +50 bps	(1,167)	(1,322)	
Price inflation decrease rate –50 bps	1,034	1,161	
Cash balance interest credit rate +50 bps	(131)	(121)	
Cash balance interest credit rate –50 bps	86	84	
Mortality 10% increase in life expectancy	(1,881)	(1,527)	
Mortality 10% decrease in life expectancy	1,815	1,557	

<sup>&</sup>lt;sup>1</sup> A negative number indicates an increase and a positive number indicates a decrease in the defined benefit obligation.

Table 20.7 sets out the sensitivity of the defined benefit obligation to changes in key actuarial assumptions. The effect on the defined benefit obligation shown allows for an alternative value for each assumption while the other actuarial assumptions remain unchanged. Whilst this table illustrates the overall impact on the defined benefit obligation of the changes shown, the significance of the impact and the range of reasonably possible alternative assumptions may differ between the different plans that comprise the overall defined benefit obligation. In particular, the plans differ in benefit design, currency and average term, meaning that different assumptions have different levels of significance for different plans. The sensitivity analysis is intended to illustrate the inherent uncertainty in the evaluation of the defined benefit obligation under market conditions at the measurement date. Its results cannot be extrapolated due to non-linear effects that changes in the key actuarial assumptions may have on the overall defined benefit obligation. Furthermore, the analysis does not indicate a probability of such changes occurring and it does not necessarily represent the ZIC Group's view of expected future changes in the defined benefit obligation. Any management actions that may be taken to mitigate the inherent risks in the post-employment defined benefit plans are not reflected in this analysis.

#### b) Defined contribution pension plans

Certain of the ZIC Group's companies sponsor defined contribution pension plans. Eligibility for participation in such plans is either immediate on commencement of employment or based on completion of a specified period of continuous service. The plans provide for voluntary contributions by employees and contributions by the employer which typically range from 2 percent to 10 percent of annual pensionable salary, depending on a number of factors. The ZIC Group's contributions under these plans amounted to USD 189 million and USD 157 million for the years ended December 31, 2016 and 2015, respectively.

## 21. Share-based compensation and cash incentive plans

The ZIC Group has adopted various share-based compensation and cash incentive plans to attract, retain and motivate executives and employees. The plans are designed to reward employees for their contribution to the performance of the ZIC Group and to encourage employee share ownership. Share-based compensation plans include plans under which shares and options to purchase shares, based on the performance of the businesses, are awarded. Share-based compensation plans are based on the provision of Zurich Insurance Group Ltd shares, the ultimate parent which is not part of the ZIC Group.

#### a) Cash incentive plans

Various businesses throughout the ZIC Group operate short-term incentive programs for executives, management and, in some cases, for employees of that business. Awards are made in cash, based on the accomplishment of both organizational and individual performance objectives. The expense recognized for these cash incentive plans amounted to USD 448 million and USD 380 million for the years ended December 31, 2016 and 2015, respectively.

#### b) Share-based compensation plans for employees and executives

The ZIC Group encourages employees to own shares in Zurich Insurance Group Ltd and has set up a framework based on the implementation of performance share programs. Actual plans are tailored to meet local market requirements.

The cost of share-based payments depend on various factors, including achievement of targets, and are subject to the discretion of the Remuneration Committee. Costs may therefore vary significantly from year to year. The net amounts of USD 98 million and USD 111 million for the years ended December 31, 2016 and 2015, respectively, reflect all aspects of share-based compensation, including adjustments made during the year.

The explanations below provide a more detailed overview of the main plans of the ZIC Group.

#### Employee share plans

#### Share Incentive Plan for employees in the UK

The ZIC Group established an Inland Revenue approved Share Incentive Plan and launched the Partnership Shares element of this plan in 2003, which enabled participating employees to make monthly purchases of Zurich Insurance Group Ltd shares at the prevailing market price from their gross earnings. This plan was terminated in 2007. There were 75 and 99 participants in the plan as of December 31, 2016 and 2015, respectively.

A revised Partnership Share Scheme was launched in March 2013. Participants benefit from purchasing shares by making deductions from gross salary up to a maximum of GBP 1,800 or 10 percent of their year-to-date earnings. There were 848 and 883 active participants in the plan as of December 31, 2016 and 2015, respectively.

The ZIC Group also operates a profit-sharing element of the Share Incentive Plan (Reward Shares) which was launched in 2004 with annual share allocations being made in May each year subject to business performance. The awards are based on business operating profit (BOP) after tax for the year achieved by the business unit of each participating employee. Individual awards are subject to a maximum of 5 percent of a participant's base salary (before any flexible benefit adjustments) with an overall maximum of GBP 3,600. The total number of participating employees in Reward Shares as of December 31, 2016 and 2015 was 4,964 and 5,607, respectively.

A new Dividend Reinvest scheme was launched in 2014 which allows employees to reinvest their dividends from Partnership Shares and Reward Shares. As of December 31, 2016 and 2015, there were 346 and 303 participants in the scheme, respectively.

#### Share Incentive Plan for employees in Switzerland

Under this plan, employees have the option to acquire sales-restricted shares at a 30 percent discount to the market value. The maximum permitted investment in shares is equivalent to CHF 3,500 per employee per annum. During 2016, 4,551 employees were eligible to participate in the share incentive plan, compared with 4,633 in 2015. For the years ended December 31, 2016 and 2015, 1,710 and 1,775 employees, respectively, purchased shares under the 2015 and 2014 share plans.

#### The Zurich Insurance Group Long-Term Incentive Plan (LTIP)

Participants in this plan are allocated a target number of performance shares as notional shares of Zurich Insurance Group Ltd in April each year (target shares). The number of target shares is calculated as a percentage of annual base salary of each participant.

Target shares allocated in 2016 will vest after a period of three years following the year of allocation (three year cliff vesting), with the actual level of vesting between 0 percent and 200 percent of the target shares allocated, depending on the achievement of pre-defined performance criteria. The performance criteria used to determine the level of vesting are the Zurich Insurance Group's return on shareholders' equity (ROE), the position of its relative total shareholder return (TSR) measured against an international peer group of insurance companies, and the achievement of cash remittance targets. The three pre-defined performance criteria are each assessed over a period of three consecutive financial years starting in the year of allocation. One half of the shares that actually vest are sales-restricted for a further three years. To further align the participants with the interests of the shareholders, effective from January 1, 2014, the target shares are credited with dividend equivalent shares during the vesting period to compensate participants in LTIP for dividends paid to Zurich Insurance Group shareholders. As of December 31, 2016 and 2015, there were 1,203 and 1,268 participants in this plan, respectively.

The transition to three-year cliff-vesting has been phased in with transitional arrangements for shares allocated in 2014 and prior. Target shares allocated in 2014 are to be assessed for vesting one-third after two years in 2016 and two-thirds after 3 years in 2017. Further, for LTIP participants who joined the plan prior to 2014, additional performance shares were allocated in 2014 to maintain the same cumulative target earning opportunity for these participants during the transition period.

# Shares allocated during the period

Table 21				
for the years ended December 31			F	air value at the
		Number	allocation date (in CHF)	
	2016	2015	2016	2015
Shares allocated during the period	779,846	503,570	203	329

The shares allocated each year are based on target under the Zurich Insurance Group's LTIP. The level of vesting will depend on the level of achievements in the performance criteria. If the vesting level is different to target for market and non-market conditions, the actual costs of the share-based payments is adjusted accordingly in the year when the level of vesting is determined.

Prior to 2011, for selected senior executives, performance shares and options in shares of Zurich Insurance Group Ltd were allocated. All remaining share options will expire in 2017. The number of allocated shares options amount to 172,978 and 330,888 as of December 31, 2016 and 2015, respectively. For the years ended December 31, 2016 and 2015, 141,416 and 135,161 share options, respectively, were exercised.

# 22. Commitments and contingencies, legal proceedings and regulatory investigations

The ZIC Group has provided contractual commitments and financial guarantees to external parties, associates and joint ventures as well as partnerships. These arrangements include commitments under certain conditions to make liquidity advances to cover default principal and interest payments, make capital contributions or provide equity financing.

Quantifiable commitments and contingencies

Table 22.1		
in USD millions, as of December 31	2016	2015
Remaining commitments under investment agreements	2,009	1,431
Guarantees and letters of credit <sup>1,2</sup>	799	4,219
Future operating lease commitments	1,960	1,510
Undrawn loan commitments	7	7
Other commitments and contingent liabilities	199	574

<sup>&</sup>lt;sup>1</sup> Guarantee features embedded in life insurance products are not included.

#### Commitments under investment agreements

The ZIC Group has committed to contribute capital to third parties that engage in making investments in direct private equity, private equity funds and real estate. Commitments may be called by the counterparty over the term of the investment (generally three to five years) and must be funded by the ZIC Group on a timely basis.

#### Guarantees and letters of credit

The ZIC Group knows of no event of default that would require it to satisfy financial guarantees. Irrevocable letters of credit have been issued to secure certain reinsurance contracts.

The ZIC Group is active in numerous countries where insurance guarantee funds exist. The design of such funds varies from jurisdiction to jurisdiction. In some, funding is based on premiums written, in others the ZIC Group may be called upon to contribute to such funds in case of a failure of another market participant. In addition, in some jurisdictions the amount of contribution may be limited, for example, to a percentage of the net underwriting reserve net of payments already made.

The ZIC Group carries certain contingencies in the ordinary course of business in connection with the sale of its companies and businesses. These are primarily in the form of indemnification obligations provided to the acquirer in a transaction in which a ZIC Group company is the seller. They vary in scope and duration by counterparty and generally are intended to shift the potential risk of certain unquantifiable and unknown loss contingencies from the acquirer to the seller.

#### Commitments under lease agreements

The ZIC Group has entered into various non-cancellable operating leases as lessee for office space and certain computer and other equipment. Lease expenses totaled USD 260 million and USD 251 million for the years ended December 31, 2016 and 2015, respectively.

Future payments under non-cancelable operating leases with terms in excess of one year

Table 22.2		
in USD millions, as of December 31	2016	2015
< 1 year	262	277
1 to 2 years	217	215
2 to 3 years	195	179
3 to 4 years	157	154
4 to 5 years	135	122
> 5 years	994	564
Total	1,960	1,510

<sup>&</sup>lt;sup>2</sup> A surety bond with Dunbar Assets Ireland amounting to USD 3 billion was cancelled as of December 31, 2016.

#### Other contingent liabilities

The ZIC Group has received notices from various tax authorities asserting deficiencies in taxes for various years. The ZIC Group is of the view that the ultimate outcome of these reviews would not materially affect the ZIC Group's consolidated financial position.

The ZIC Group has commitments to provide collateral on certain contracts in the event of a financial strength downgrading for Zurich Insurance Company Ltd from the current AA– by Standard & Poor's. Should the rating by Standard & Poor's fall to A+, then the additional collateral based on information available amounts to nil as of both December 31, 2016 and 2015.

In common with other insurance companies in Europe, the ZIC Group is faced with the continued trend towards enhanced consumer protection. Significant uncertainty exists regarding the ultimate cost of these consumer protection trends. The main areas of uncertainty concern court decisions as well as the volume of potential customer complaints related to sales activities and withdrawal rights, and their respective individual assessment.

#### Pledged assets

The majority of assets pledged to secure the ZIC Group's liabilities relate to debt securities pledged under short-term sale and repurchase agreements. The total amount of pledged financial assets including the securities under short-term sale and repurchase agreements amounted to USD 4,903 million and USD 6,208 million as of December 31, 2016 and 2015, respectively.

Terms and conditions associated with the financial assets pledged to secure the ZIC Group's liabilities are usual and standard in the markets in which the underlying agreements were executed.

#### Legal, compliance and regulatory developments

In recent years there has been an increase in the number of legislative initiatives that require information gathering and tax reporting regarding the ZIC Group's customers and their contracts, including the U.S. Foreign Account Tax Compliance Act (FATCA) and the expected introduction of other automatic tax information exchange regimes based on the Common Reporting Standard (CRS). The ZIC Group's compliance activities in this area could result in higher compliance costs, remedial actions and other related expenses for its life insurance, savings and pension business. There has also been increased scrutiny by various tax and law enforcement officials into cross-border business activities, including in particular by U.S. government authorities looking into U.S. taxpayers with investments held outside the U.S. and the non-U.S. financial institutions that hold such investments.

The ZIC Group, on its own initiative, undertook an internal review of the life insurance, savings and pension business sold by its non-U.S. operating companies with relevant cross-border business to customers with a nexus to the U.S. The ZIC Group engaged outside counsel and other advisors to assist in this review, which was focused on assessing compliance with relevant U.S. tax laws. The review confirmed that the ZIC Group's cross-border business with U.S. persons was very limited and of a legacy nature, with the large majority of sales having occurred more than a decade ago. The review also confirmed that the ZIC Group's U.S. operating companies were not involved in or connected to those activities.

The ZIC Group has voluntarily disclosed the results of the review and the regulatory issues presented by sales to U.S. residents to the Swiss Financial Market Supervisory Authority (FINMA), the U.S. Department of Justice (DOJ) and other authorities. The ZIC Group is cooperating with these authorities.

While at this stage in the process, it is unclear whether the ZIC Group will have any liability related to these matters, the ZIC Group does not currently believe this matter will have a material adverse effect on the ZIC Group's business or the ZIC Group's consolidated financial condition.

#### Legal proceedings and regulatory investigations

The ZIC Group's business is subject to extensive supervision, and the ZIC Group is in regular contact with various regulatory authorities. The ZIC Group is continuously involved in legal proceedings, claims and regulatory investigations arising, for the most part, in the ordinary course of its business operations. Specifically, certain companies within the ZIC Group are engaged in the following legal proceedings:

An action entitled Fuller-Austin Asbestos Settlement Trust, et al. v. Zurich American Insurance Company (ZAIC), et al., was filed in May 2004 in the Superior Court for San Francisco County, California. Three other similar actions were filed in 2004 and 2005 and were coordinated with the Fuller-Austin action (collectively, the Fuller-Austin Case). In addition to ZAIC and four of its insurance company subsidiaries, Zurich Insurance Company Ltd and Orange Stone Reinsurance Dublin (Orange Stone) are named as defendants. The plaintiffs, who were historical policyholders of the Home Insurance Company (Home), pleaded claims for, inter alia, fraudulent transfer, tortious interference, unfair competition, alter ego and agency liability relating to the recapitalization of Home, which occurred in 1995 following regulatory review and approval. The plaintiffs alleged that pursuant to the recapitalization and subsequent transactions, various Zurich entities took assets from Home without giving adequate consideration in return, and contend that this forced Home into liquidation. The plaintiffs further alleged that the defendants should be held responsible for Home's alleged obligations under their Home policies. The trial judge designated the plaintiffs' claims for constructive fraudulent transfer for adjudication before all other claims; he subsequently ordered an initial bench trial on certain threshold elements of those fraudulent transfer claims and on certain of defendants' affirmative defenses (Phase 1).

The Phase 1 trial commenced on November 1, 2010 and the court issued its Statement of Decision for Phase 1 on December 27, 2013. While the court found that the plaintiffs had established that Home transferred certain assets to one of the defendants in connection with the 1995 recapitalization transaction, it held that the plaintiffs' fraudulent transfer claims, which all related to transfers allegedly made as part of the 1995 recapitalization, were time-barred. The court further held that Home's liquidator had exclusive standing to bring fraudulent transfer claims involving Home's assets. In addition, the court accepted the defendants' arguments that the findings made by the regulators in approving the recapitalization transaction are binding on the plaintiffs in the Fuller-Austin Case.

Following a hearing to consider the effect of the initial decision on the plaintiffs' remaining claims, on February 27, 2015, the court issued its Statement of Decision for Phase 1A. The court ruled that all of the plaintiffs' fraudulent transfer causes of action were barred, and plaintiffs later confirmed on the record that their unfair competition claims were also barred as a result of the Decision for Phase 1A. The court allowed the plaintiffs' remaining claims to proceed, but held that the plaintiffs are bound by the insurance regulators' determinations that the 1995 recapitalization was fair and in the best interests of Home's policyholders, including the plaintiffs.

Beginning in early 2015, a number of plaintiffs voluntarily dismissed their claims with prejudice in exchange for an agreement that the defendants will not pursue them for litigation costs and such dismissals have been filed with the Court. As a result of these dismissals only one of the four coordinated actions remains pending, and only one plaintiff remains in that action. Apart from these dismissals, there has been no recent litigation activity in the remaining action. The ZIC Group maintains that the Fuller-Austin Case is without merit and intends to continue to defend itself vigorously against the claims of the one plaintiff that remains in the case.

While the ZIC Group believes that it is not a party to, nor are any of its subsidiaries the subject of, any unresolved current legal proceedings, claims, litigation and investigations that will have a material adverse effect on the ZIC Group's consolidated financial condition, proceedings are inherently unpredictable, and it is possible that the outcome of any proceeding could have a material impact on results of operations in the particular reporting period in which it is resolved.

### 23. Fair value measurement

To measure fair value, the ZIC Group gives the highest priority to quoted and unadjusted prices in active markets. In the absence of quoted prices, fair values are calculated through valuation techniques, making the maximum use of relevant observable market data inputs. Whenever observable parameters are not available, the inputs used to derive the fair value are based on common market assumptions that market participants would use when pricing assets and liabilities. Depending on the observability of prices and inputs to valuation techniques, the ZIC Group classifies instruments measured at fair value within the following three levels (the fair value hierarchy):

Level 1 – includes assets and liabilities for which fair values are determined directly from unadjusted current quoted prices resulting from orderly transactions in active markets for identical assets/liabilities.

Level 2 – includes assets and liabilities for which fair values are determined using significant inputs other than quoted prices included in level 1 that are observable for the asset or liability, either directly or indirectly. These inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and other observable market inputs.

Level 3 – includes assets and liabilities for which fair values are determined using valuation techniques with at least one significant input not being based on observable market data. This approach is used only in circumstances when there is little, if any, market activity for a certain instrument, and the ZIC Group is required to develop internal valuation inputs based on the best information available about the assumptions that market participants would use when pricing the asset or liability.

The governance framework and oversight of the ZIC Group standards and procedures regarding the valuation of financial instruments measured at fair value lies within the responsibility of Group Risk Management, Group Investment Management, Treasury Capital Management and Group Finance. Specialists from these departments ensure the adequacy of valuation models, approve methodologies and sources to derive model input parameters, provide oversight over the selection of third party pricing providers, and on a quarterly basis review the classification within the fair value hierarchy of the financial instruments in scope.

The ZIC Group makes extensive use of third party pricing providers to determine the fair values of its available-for-sale and fair value through profit or loss financial instruments, and only in rare cases places reliance on prices that are derived from internal models. Investment accounting, operations and process functions, are independent from those responsible for buying and selling the assets, and are responsible for receiving, challenging and verifying values provided by third party pricing providers to ensure that fair values are reliable, as well as ensuring compliance with applicable accounting and valuation policies. The quality control procedures used depend on the nature and complexity of the invested assets. They include regular reviews of valuation techniques and inputs used by pricing providers (for example, default rates of collateral for asset-backed securities), variance and stale price analysis, and comparisons with fair values of similar instruments and with alternative values obtained from asset managers and brokers.

Table 23.1 compares the fair value with the carrying value of financial assets and financial liabilities. Certain financial instruments are not included within this table as their carrying value is a reasonable approximation of their fair value. Such instruments include cash and cash equivalents, obligations to repurchase securities, deposits made under assumed reinsurance contracts, deposits received under ceded reinsurance contracts and other financial assets and liabilities. This table excludes financial assets and financial liabilities relating to unit-linked contracts.

Fair value and carrying value of financial assets and financial liabilities

Table 23.1				
in USD millions, as of December 31	1	Total fair value	Total c	arrying value
	2016	2015	2016	2015
Available-for-sale securities				
Equity securities	12,881	15,675	12,881	15,675
Debt securities	131,967	128,137	131,967	128,137
Total available-for-sale securities	144,847	143,812	144,847	143,812
Fair value through profit or loss securities				
Equity securities	3,359	3,519	3,359	3,519
Debt securities	5,672	6,180	5,672	6,180
Total fair value through profit or loss securities	9,032	9,699	9,032	9,699
Derivative assets	967	1,114	967	1,114
Held-to-maturity debt securities	3,213	4,086	2,543	3,369
Investments in associates and joint ventures	20	18	20	18
Mortgage loans	7,330	7,603	6,794	7,024
Other loans	10,909	11,992	9,146	10,282
Total financial assets	176,318	178,324	173,348	175,318
Derivative liabilities	(344)	(356)	(344)	(356)
Financial liabilities held at amortized cost				
Liabilities related to investment contracts	(637)	(913)	(506)	(754)
Liabilities related to investment contracts with DPF	(8,011)	(6,447)	(8,374)	(7,629)
Senior debt	(4,383)	(4,780)	(4,239)	(4,656)
Subordinated debt	(7,370)	(5,983)	(7,050)	(5,614)
Total financial liabilities held at amortized cost	(20,402)	(18,124)	(20,169)	(18,652)
Total financial liabilities	(20,746)	(18,480)	(20,513)	(19,009)

All of the ZIC Group's financial assets and financial liabilities are initially recorded at fair value. Subsequently, available-for-sale financial assets, fair value through profit or loss financial assets, and derivative financial instruments are carried at fair value as of the balance sheet date. All other financial instruments are carried at amortized cost and the valuation techniques used to determine their fair value measurement are described below.

Fair values of held-to-maturity debt securities and senior and subordinated debt are obtained from third party pricing providers. The fair value received from these pricing providers may be based on quoted prices in an active market for identical assets, alternative pricing methods such as matrix pricing or an income approach employing discounted cash flow models. Such instruments are categorized within level 2.

Discounted cash flow models are used for mortgage loans and other loans. The discount yields in these models use interest rates that reflect the return a market participant would expect to receive on instruments with similar remaining maturities, cash flow patterns, currencies, credit risk and collateral. Such instruments are categorized within level 3.

Fair values of liabilities related to investment contracts and investment contracts with DPF are determined using discounted cash flow models. Such instruments are categorized within level 3 due to the unobservability of certain inputs used in the valuation.

### Recurring fair value measurements of assets and liabilities

Fair value hierarchy - non unit-linked current period

Table 23.2a				
in USD millions, as of December 31, 2016	Level 1	Level 2	Level 3	Total
Available-for-sale securities				
Equity securities	9,569	2,395	917	12,881
Debt securities	_	126,459	5,508	131,967
Total available-for-sale securities	9,569	128,853	6,425	144,847
Fair value through profit or loss securities				
Equity securities	783	40	2,536	3,359
Debt securities	-	5,575	97	5,672
Total fair value through profit or loss securities	783	5,615	2,633	9,032
Derivative assets	3	542	422	967
Investment property	_	2,007	8,555	10,562
Reinsurers' share of reserves for insurance contracts				
fair value option <sup>1</sup>	_	_	237	237
Total	10,355	137,018	18,273	165,645
Derivative liabilities	_	(282)	(61)	(344)
Reserves for insurance contracts fair value option <sup>2</sup>	_	_	(2,720)	(2,720)
Total	_	(282)	(2,781)	(3,064)

 $<sup>^{\</sup>rm 1}$  Included within reinsurers' share of reserves for insurance contracts.  $^{\rm 2}$  Included within reserves for insurance contracts.

Fair value hierarchy - non unit-linked prior period

Table 23.2b				
in USD millions, as of December 31, 2015	Level 1	Level 2	Level 3	Total
Available-for-sale securities				
Equity securities	12,464	2,252	959	15,675
Debt securities	495	121,680	5,962	128,137
Total available-for-sale securities	12,959	123,932	6,921	143,812
Fair value through profit or loss securities				
Equity securities	1,017	82	2,419	3,519
Debt securities	_	6,034	146	6,180
Total fair value through profit or loss securities	1,017	6,116	2,565	9,699
Derivative assets	1	590	523	1,114
Investment property	_	2,037	7,828	9,865
Reinsurers' share of reserves for insurance contracts				
fair value option <sup>1</sup>	_	_	270	270
Total	13,977	132,675	18,108	164,759
Derivative liabilities	(5)	(258)	(94)	(356)
Reserves for insurance contracts fair value option <sup>2</sup>	_	_	(2,927)	(2,927)
Total	(5)	(258)	(3,021)	(3,284)

<sup>&</sup>lt;sup>1</sup> Included within reinsurers' share of reserves for insurance contracts.

<sup>&</sup>lt;sup>2</sup> Included within reserves for insurance contracts.

Table 23.3a				
in USD millions, as of December 31, 2016	Level 1	Level 2	Level 3	Total
Fair value through profit or loss securities				
Equity securities	92,232	20,684	446	113,362
Debt securities	_	7,168	30	7,198
Other loans	_	1,458	_	1,458
Total fair value through profit or loss securities	92,232	29,309	476	122,018
Derivative assets	5	21	_	26
Investment property	_	_	3,138	3,138
Total investments for unit-linked contracts <sup>1</sup>	92,236	29,331	3,614	125,182
Financial liabilities at FV through profit or loss				
Liabilities related to unit-linked investment contracts	_	(60,233)	_	(60,233)
Derivative liabilities	(4)	(5)	_	(9)
Total	(4)	(60,238)	_	(60,242)

<sup>&</sup>lt;sup>1</sup> Excluding cash and cash equivalents.

Fair value hierarchy
– unit-linked –
prior period

Table 23.3b				
in USD millions, as of December 31, 2015	Level 1	Level 2	Level 3	Total
Fair value through profit or loss securities				
Equity securities	89,414	22,093	336	111,844
Debt securities	951	7,198	43	8,192
Other loans	227	1,090	_	1,317
Total fair value through profit or loss securities	90,592	30,381	380	121,353
Derivative assets	_	7	_	7
Investment property	_	_	4,341	4,341
Total investments for unit-linked contracts <sup>1</sup>	90,592	30,388	4,721	125,701
Financial liabilities at FV through profit or loss				
Liabilities related to unit-linked investment contracts	_	(62,245)	_	(62,245)
Derivative liabilities	(1)	(6)	_	(7)
Total	(1)	(62,251)	_	(62,252)

<sup>&</sup>lt;sup>1</sup> Excluding cash and cash equivalents.

Within level 1, the ZIC Group has classified common stocks, exchange traded derivative financial instruments, investments in unit trusts that are actively traded in an exchange market and other highly liquid financial instruments.

Within level 2, the ZIC Group has classified government and corporate bonds, investments in unit trusts, agency mortgage-backed securities (MBS) and 'AAA' rated non-agency MBS and other asset-backed securities (ABS) where valuations are obtained from independent pricing providers. The fair value received from these pricing providers may be based on quoted prices in an active market for similar assets, alternative pricing methods such as matrix pricing or an income approach employing discounted cash flow models. If such quoted prices are not available, then fair values are estimated on the basis of information from external pricing providers or internal pricing models (for example, discounted cash flow models or other recognized valuation techniques).

Over the counter derivative financial instruments are valued using internal models. The fair values are determined using dealer price quotations, discounted cash flow models and option pricing models, which use various inputs including current market and contractual prices for underlying instruments, time to expiry, yield curves and volatility of underlying instruments. Such instruments are classified within level 2 as the inputs used in pricing models are generally market observable or derived from market observable data.

Fair values of liabilities related to unit-linked investment contracts are usually determined by reference to the fair value of the underlying assets backing these liabilities. Such instruments are classified within level 2.

#### Within level 3, the ZIC Group has classified:

- → Unlisted stocks, private equity funds and certain hedge funds that are not actively traded. Such instruments are obtained from net asset value information and audited financial statements provided by the issuing hedge funds and private equity funds. Performance of these investments and determination of their fair value are monitored and reviewed closely by the ZIC Group's in-house investment professionals and may be adjusted based on their understanding of the circumstances of individual investments.
- → Non-agency MBS and ABS rated below 'AAA' that are valued by independent pricing providers using a variety of valuation techniques which may require use of significant unobservable input parameters such as asset prepayment rate, default rates and credit curves.
- → Certain options and long-dated derivative financial instruments with fair values determined using counterparty valuations or calculated using significant unobservable inputs such as historical volatilities, historical correlation, implied volatilities from the counterparty or derived using extrapolation techniques.
- → Certain investment properties for which fair value is based on valuations performed annually by internal valuation specialists and generally on a rotation basis at least once every three years by an independent qualified appraiser. The valuation methods applied are income capitalization, discounted cash flow analysis, and market comparables taking into account the actual letting status and observable market data. The majority of such investments have been categorized within level 3 because the valuation techniques used include significant adjustments to observable data of similar properties. Some of these investments have been categorized within level 2, where there are active and transparent markets and no significant adjustments to the observable data are required.
- → Reinsurers' share of reserves and reserves for insurance contracts fair value option. The fair values are determined using discounted cash flow models. The discount factors used are based on derived rates for LIBOR swap forwards, spreads to U.S. Treasuries and spreads to U.S. Corporate A or higher rated bond segments for Financials, Industrials and Utilities. The liability projected cash flows use contractual information for premiums, benefits and agent commissions, administrative expenses under third party administrative service agreements and best estimate parameters for policy decrements. The primary unobservable inputs are the policy decrement assumptions used in projecting cash flows. These include disability claim parameters for incidence and termination (whether for recovery or death) and lapse rates.
- → The ZIC Group's private debt holdings comprise certain private placements and other Collateralized Loan Obligations (CLO) which are valued by dedicated external asset managers applying a combination of expert judgment and other specific adjustments for which interest rates as well as credit spreads serve as input parameters.

The fair value hierarchy is reviewed at the end of each reporting period to determine whether significant transfers between levels have occurred. Transfers between levels mainly arise as a result of changes in market activity and observability of the inputs to the valuation techniques used to determine the fair value of certain instruments.

For the year ended December 31, 2016, the ZIC Group transferred USD 2,146 million of unit-linked equity securities out of level 2 into level 1 as a result of a review of the classification of certain mutual fund investments. No material transfers between level 1 and level 2 occurred for the year ended December 31, 2015.

**Development of** assets and liabilities classified within level 3 – non unit-linked current period

Table 23.4a							
in USD millions	Availa	ble-for-sale	Fair value thr	ough profit			
		securities	or lo	ss securities			
	Equity	Debt	Equity	Debt	Derivative	Derivative	Investment
	securities	securities	securities	securities	assets	liabilities	property
As of January 1, 2016	959	5,962	2,419	146	523	(94)	7,828
Realized gains/(losses) recognized							
in income <sup>1</sup>	105	24	9	-	-	-	129
Unrealized gains/(losses) recognized							
in income <sup>1,2</sup>	(15)	(34)	154	-	(28)	(6)	236
Unrealized gains/(losses) recognized							
in other comprehensive income	(9)	24	_	-	59	38	9
Purchases	223	1,291	448	1	8	_	836
Settlements/sales/redemptions	(299)	(1,416)	(471)	(29)	(6)	-	(245)
Transfer from/to assets held for own use	_	-	_	-	-	-	(5)
Transfer to assets held for sale	_	_	_	_	_	_	(74)
Transfers into level 3	_	29	1	-	_	-	_
Transfers out of level 3	_	(228)	_	(6)	(130)	-	_
Acquisitions and divestments	(6)	-	_	-	-	-	-
Foreign currency translation effects	(42)	(145)	(25)	(15)	(4)	1	(159)
As of December 31, 2016	917	5,508	2,536	97	422	(61)	8,555

<sup>&</sup>lt;sup>1</sup> Presented as net capital gains/(losses) and impairments on Group investments in the consolidated income statements. <sup>2</sup> Unrealized gains/(losses) recognized in income for available-for-sale securities relate to impairments.

For the year ended December 31, 2016, the ZIC Group transferred USD 228 million of available-for-sale debt securities out of level 3 into level 2. The transfers were mainly due to credit rating upgrades of certain asset-backed securities resulting in an increase in market activity of these instruments and a review of the classification of certain corporate bonds due to the observability of the inputs used in the valuation techniques to determine its fair value. The ZIC Group also transferred derivatives with a market value of USD 130 million out of level 3 into level 2. The transfers resulted from an increase in significance of certain observable input parameters used to derive the fair value.

**Development of** assets and liabilities classified within level 3 – non unit-linked prior period

Table 23.4b							
in USD millions	Avail	able-for-sale	Fair value th	rough profit			
		securities	or lo	oss securities			
	Equity	Debt	Equity	Debt	Derivative	Derivative	Investment
	securities	securities	securities	securities	assets	liabilities	property
As of January 1, 2015	929	2,764	2,417	185	355	(41)	6,818
Realized gains/(losses) recognized							
in income <sup>1</sup>	148	5	77	_	(2)	_	8
Unrealized gains/(losses) recognized							
in income <sup>1,2</sup>	(2)	(27)	(28)	(5)	(1)	_	97
Unrealized gains/(losses) recognized							
in other comprehensive income	(47)	(97)	_	_	59	(55)	12
Purchases	188	2,246	463	7	6	_	1,096
Settlements/sales/redemptions	(288)	(661)	(496)	(35)	(5)	1	(7)
Transfer from/to assets held for own use	_	_	_	_	_	_	22
Transfer to assets held for sale	_	_	_	_	_	_	(16)
Transfers into level 3	58	1,829		_	124	_	22
Transfers out of level 3	_	(20)	-	_	(4)	_	_
Foreign currency translation effects	(27)	(77)	(14)	(6)	(10)	2	(224)
As of December 31, 2015	959	5,962	2,419	146	523	(94)	7,828

Presented as net capital gains/(losses) and impairments on Group investments in the consolidated income statements.

<sup>&</sup>lt;sup>2</sup> Unrealized gains/(losses) recognized in income for available-for-sale securities relate to impairments.

For the year ended December 31, 2015, the ZIC Group transferred USD 1,829 million of available-for-sale debt securities out of level 2 into level 3 as a result of a review of the classification of certain collateralized loan obligations and privately placed securities. The fair value of these securities is obtained from third party pricing providers, who use significant unobservable inputs and expert judgment in their valuation model. The ZIC Group also transferred derivatives with a market value of USD 124 million out of level 2 into level 3. The transfers resulted from certain significant input parameters used to derive the fair value (such as volatility) becoming unobservable.

Development of reserves for insurance contracts fair value option classified within level 3 – current period

Table 23.5a			
in USD millions	Gross	Ceded	Net
As of January 1, 2016	2,927	(270)	2,657
Premiums	77	(6)	71
Claims	(363)	44	(319)
Fee income and other expenses	(38)	10	(28)
Interest and bonuses credited to policyholders	60	(8)	52
Changes in assumptions	56	(7)	49
As of December 31, 2016	2,720	(237)	2,483

Development of reserves for insurance contracts fair value option classified within level 3 – prior period

Table 23.5b			
in USD millions	Gross	Ceded	Net
As of January 1, 2015	3,594	(375)	3,219
Premiums	85	(7)	78
Claims	(618)	95	(523)
Fee income and other expenses	(172)	25	(147)
Interest and bonuses credited to policyholders	78	(11)	67
Changes in assumptions	(39)	3	(36)
As of December 31, 2015	2,927	(270)	2,657

Development assets and liabilities classified within level 3 – unit-linked – current period

Table 23.6a				
in USD millions	Fair value	Fair value through profit		
	or	or loss securities		
	Equity	Debt	Investment	
	securities	securities	property	
As of January 1, 2016	336	43	4,341	
Realized gains/(losses) recognized in income <sup>1</sup>	_	_	(4)	
Unrealized gains/(losses) recognized in income <sup>1</sup>	11	(1)	(89)	
Purchases	164	_	116	
Sales/redemptions	(63)	(7)	(567)	
Transfers into level 3	1	1	_	
Foreign currency translation effects	(2)	(6)	(659)	
As of December 31, 2016	446	30	3,138	

<sup>&</sup>lt;sup>1</sup> Presented as net investment result on unit-linked investments in the consolidated income statements.

Development assets and liabilities classified within level 3 – unit-linked – prior period

Table 23.6b			
in USD millions	Fair value through profit		
	OI	loss securities	
	Equity	Debt	Investment
	securities	securities	property
As of January 1, 2015	198	67	4,100
Realized gains/(losses) recognized in income <sup>1</sup>	_	1	26
Unrealized gains/(losses) recognized in income <sup>1</sup>	3	_	383
Purchases	230	_	213
Sales/redemptions	(91)	(22)	(147)
Transfers into level 3	1	_	_
Foreign currency translation effects	(6)	(3)	(235)
As of December 31, 2015	336	43	4,341

<sup>&</sup>lt;sup>1</sup> Presented as net investment result on unit-linked investments in the consolidated income statements.

### Non-recurring fair value measurements of assets and liabilities

In particular circumstances, the ZIC Group may measure certain assets or liabilities at fair value on a non-recurring basis when an impairment charge is recognized.

### Sensitivity of fair values reported for level 3 instruments to changes to key assumptions

Within level 3, the ZIC Group classified non-agency ABS/MBS, CLOs, and private debt placements amounting to USD 5,605 million and USD 6,108 million for Group investments and USD 30 million and USD 43 million for investments for unit-linked contracts as of December 31, 2016 and 2015, respectively.

Within level 3, the ZIC Group also classified investments in private equity funds, certain hedge funds and other securities which are not quoted on an exchange amounting to USD 3,453 million and USD 3,378 million for Group investments and USD 446 and USD 336 million for investments for unit-linked contracts as of December 31, 2016 and 2015, respectively. These investments are valued based on regular reports from the issuing funds, and their fair values are reviewed by a team of in-house investment professionals and may be adjusted based on their understanding of the circumstances of individual investments.

The key assumptions driving the valuation of these investments include equity levels, discount rates, credit spread rates and prepayment rates. The effect on reported fair values of using reasonably possible alternative values for each of these assumptions, while the other key assumptions remain unchanged, is disclosed in tables 23.7.a and 23.7b. While these tables illustrate the overall effect of changing the values of unobservable inputs by a set percentage, the significance of the impact and the range of reasonably possible alternative assumptions may differ significantly between investments, given their different terms and circumstances. Inter-relationships between those unobservable inputs are disclosed in tables 23.8a and 23.8b. The correlation is based on the historical correlation matrix derived from the risk factors which are assigned to each of the level 3 exposures (equity and debt securities). The main market drivers are equity markets and rate indicators and the impact of such changes on the other factors. The spread scenario analyzes the impact of an increase of borrowing cost for entities.

The sensitivity analysis is intended to reflect the uncertainty inherent in the valuation of these investments under current market conditions, and its results cannot be extrapolated due to non-linear effects that changes in valuation assumptions may have on the fair value of these investments. Furthermore, the analysis does not indicate a probability of such changes occurring and it does not necessarily represent the ZIC Group's view of expected future changes in the fair value of these investments. Any management actions that may be taken to mitigate the inherent risks are not reflected in this analysis.

Table 23.7a				
as of December 31, 2016		Decrease in reported	More favorable	Increase in
	Less favorable values	fair value	values	reported fair value
	(relative change)	(in USD millions)	(relative change)	(in USD millions)
Key assumptions				
Equity levels	-20%	(691)	+20%	691
Discount rates	+20%	(68)	-20%	68
Spread rates	+20%	(68)	-20%	68
Prepayment rates	-20%	(1)	+20%	1

Sensitivity analysis of level 3 investments to changes in key assumptions – prior period

Table 23.7b				
as of December 31, 2015	D	ecrease in reported fair	More favorable	Increase in
	Less favorable values	value	values	reported fair value
	(relative change)	(in USD millions)	(relative change)	(in USD millions)
Key assumptions				
Equity levels	-20%	(743)	+20%	743
Discount rates	+20%	(141)	-20%	152
Spread rates	+20%	(148)	-20%	159
Prepayment rates	-20%	(2)	+20%	2

Inter-relationship analysis of level 3 investments to changes in key assumptions – current period

Table 23.8a					
as of December 31, 2016			K	ey assumptions	Increase/decrease in
				Prepayment	reported fair value
	<b>Equity Levels</b>	<b>Discount Rates</b>	Spread rates	rates	(in USD millions)
Scenarios					
Equity levels +10%	+10.0%	+11.6%	+11.6%	+11.6%	321
Equity levels –10%	-10.0%	-11.5%	-11.5%	-11.5%	(323)
Discount rates +10%	-0.8%	+10.0%	+10.0%	-2.0%	(27)
Discount rates –10%	+0.8%	-10.0%	-10.0%	+2.0%	28
Spread rates +10%	-0.8%	+10.0%	+10.0%	+0.2%	(27)

Inter-relationship analysis of level 3 investments to changes in key assumptions – prior period

Table 23.8b					
as of December 31, 2015				Key assumptions	Increase/decrease in
				Prepayment	reported fair value
	Equity Levels	Discount Rates	Spread rates	rates	(in USD millions)
Scenarios					
Equity levels +10%	+10.0%	-1.4%	-1.4%	-1.4%	343
Equity levels –10%	-10.0%	+1.3%	+1.3%	+1.3%	(342)
Discount rates +10%	+0.5%	+10.0%	+7.5%	-2.0%	(109)
Discount rates –10%	-0.4%	-10.0%	-7.5%	+2.0%	114
Spread rates +10%	+0.5%	+7.0%	+10.0%	+0.2%	(110)

#### Within level 3, the ZIC Group also classified:

- → Investment property amounting to USD 8,555 million and USD 7,828 million for Group investments and USD 3,138 million and USD 4,341 million for investments for unit-linked contracts as of December 31, 2016 and 2015, respectively. A large portion of this portfolio is valued using an internal income capitalization model. The model is asset specific and capitalizes the sustainable investment income of a property with its risk specific cap rate. This cap rate is an 'all risk yield' with components such as asset class yield for core assets (lowest risk) plus additional premiums for additional risks, for example second tier location or deterioration risk. All cap rate components (risk premiums) are reviewed and, if necessary, adjusted annually before revaluations are performed. The model takes into consideration external factors such as interest rate, market rent and vacancy rate. The significant unobservable inputs which are outside this model, are estimated rental value, rental growth, long term vacancy rate and discount rate. Significant increases/(decreases) in rental value and rental growth, in isolation, would result in a significantly higher/(lower) fair value measurement. Significantly lower/(higher) fair value measurement.
- → USD 237 million and USD 270 million for reinsurers' share of reserves fair value option and, USD 2,720 million and USD 2,927 million reserves for insurance contracts fair value option as of December 31, 2016 and 2015, respectively. The significant unobservable inputs used in the fair value measurement are the policy decrement assumptions used in projecting cash flows. Significant increases/(decreases) in claim incidence rates and significant decreases/ (increases) in claim termination rates would result in a significantly higher/(lower) fair value measurement.

## 24. Analysis of financial assets

Tables 24.1a and 24.1b provide an analysis, for non unit-linked businesses, of the age of financial assets that are past due but not impaired and of financial assets that are individually determined to be impaired.

Analysis of financial assets – current period

Table 24.1a					
in USD millions, as of December 31, 2016				Receivables	
				and other	
	Debt	Mortgage		financial	
	securities	loans	Other loans	assets	Total
Neither past due nor impaired financial assets	140,038	6,719	9,145	13,011	168,913
Past due but not impaired financial assets.					
Past due by:					
1 to 90 days	_	38	_	1,156	1,194
91 to 180 days	-	10	_	252	262
181 to 365 days	_	5	_	184	189
> 365 days	-	8	_	181	189
Past due but not impaired					
financial assets	-	60	_	1,773	1,834
Financial assets impaired	143	21	21	121	306
Gross carrying value	140,181	6,800	9,166	14,905	171,052
Less: impairment allowance					
Impairment allowances on individually assessed financial assets	_	1	20	71	92
Impairment allowances on collectively assessed financial assets	_	5	_	159	164
Net carrying value	140,181	6,794	9,146	14,675	170,796

Analysis of financial assets – prior period

Table 24.1b					
in USD millions, as of December 31, 2015				Receivables	
				and other	
	Debt	Mortgage		financial	
	securities	loans1	Other loans	assets	Total
Neither past due nor impaired financial assets	137,369	6,965	10,281	11,208	165,824
Past due but not impaired financial assets.					
Past due by:					
1 to 90 days	_	41	_	1,215	1,257
91 to 180 days	_	6	_	285	291
181 to 365 days	-	4	_	138	142
> 365 days	_	8	_	188	197
Past due but not impaired					
financial assets	-	60	_	1,827	1,887
Financial assets impaired	316	9	21	136	481
Gross carrying value	137,685	7,033	10,302	13,171	168,192
Less: impairment allowance					
Impairment allowances on individually assessed financial assets	_	1	20	85	107
Impairment allowances on collectively assessed financial assets	-	8	-	163	171
Net carrying value	137,685	7,024	10,282	12,922	167,914

Tables 24.2a and 24.2b show how the allowances for impairments of financial assets in tables 24.1a and 24.1b developed during the periods ended December 31, 2016 and 2015, respectively.

Development of allowance for impairments – current period

Table 24.2a			
in USD millions	Mortgage		
	loans	Other loans	Receivables
As of January 1, 2016	9	20	249
Increase/(decrease) in allowance for impairments	(2)	2	33
Amounts written-off	(1)	(2)	(19)
Acquisitions and divestments	_	_	(31)
Foreign currency translation effects	_	(1)	(2)
As of December 31, 2016	6	20	230

Development of allowance for impairments – prior period

Table 24.2b			
in USD millions	Mortgage		
	loans	Other loans	Receivables
As of January 1, 2015	15	19	266
Increase/(decrease) in allowance for impairments	(3)	1	61
Amounts written-off	(1)	_	(54)
Foreign currency translation effects	(1)	_	(24)
As of December 31, 2015	9	20	249

### 25. Related party transactions

In the normal course of business, the ZIC Group enters into various transactions with related companies, including various reinsurance and cost-sharing arrangements. These transactions are not considered material to the ZIC Group, either individually or in aggregate. Parties are considered to be related if one party has the ability to control or exercise significant influence over the other party in making financial or operational decisions.

Table 25.1 sets out related party transactions reflected in the consolidated income statements and consolidated balance sheets.

Related party transactions included in the consolidated financial statements

Table 25.1		
in USD millions for the years ended December 31	2016	2015
Net earned premiums and policy fees	_	_
Net investment result on Group investments	8	13
Other income	8	18
Insurance benefits and losses, net of reinsurance	(4)	(5)
Administrative and other operating expense	(34)	(56)
Interest expense on debt	(2)	_
in USD millions for the years ended December 31	2016	2015
Other loans <sup>1</sup>	6	721
Deposits made under assumed reinsurance contracts	_	_
Receivables and other assets	3	7
Reserves for insurance contracts	_	_
Accrued liabilities	_	_
Other liabilities <sup>2</sup>	(541)	(1,855)
Senior debt	(77)	(184)

<sup>&</sup>lt;sup>1</sup> Includes loans with Zurich Insurance Group Ltd of nil and USD 524 million as of December 31, 2016 and 2015, respectively.

On April 25, 2008 a subordinated loan agreement was entered into between Zurich Insurance Company Ltd and Zurich Group Holding, which was assumed by Zurich Insurance Group Ltd as a consequence of its merger with Zurich Group Holding. The remaining loan was CHF 4.8 billion (USD 4.9 billion) and CHF 4.8 billion (USD 5.0 billion) as of December 31, 2016 and 2015, respectively (see note 19).

Table 25.2 summarizes related party transactions with key personnel reflected in the consolidated financial statements. Key personnel includes members of the Board of Directors of Zurich Insurance Group Ltd and Zurich Insurance Company Ltd and members of the Executive Committee.

Related party transactions – key personnel

Table 25.2		
in USD millions, for the years ended December 31	2016	2015
Remuneration of key personnel of the Group		
Cash compensation, current benefits and fees	21	27
Post-employment benefits	4	4
Share-based compensation	17	15
Other remuneration	2	11
Total remuneration of key personnel	43	57

<sup>&</sup>lt;sup>2</sup> Includes other liabilities with Zurich Insurance Group Ltd of USD 537 million and USD 1,850 million as of December 31, 2016 and 2015, respectively.

As of December 31, 2016 and 2015 there were no loans, advances or credits outstanding from members of the Executive Committee. Outstanding loans and guarantees granted to members of the Board of Directors amounted to nil for the years ended December 31, 2016 and 2015. The terms "members of the Board of Directors" and "members of the Executive Committee" in this context include the individual as well as members of their respective households. The figures in table 25.2 include the fees paid to members of the Board of Directors of Zurich Insurance Group Ltd and Zurich Insurance Company Ltd, which were USD 5 million for both years ended December 31, 2016 and 2015, respectively.

The cash compensation, current benefits and fees are short term in nature.

### 26. Relationship with the Farmers Exchanges

Farmers Group, Inc. and its subsidiaries (FGI) provide certain non-claims administrative and management services to the Farmers Exchanges, which are managed by Farmers Group, Inc. a wholly owned subsidiary of the Zurich Insurance Group, including risk selection, preparation and mailing of policy documents and invoices, premium collection, management of the investment portfolios and certain other administrative and managerial functions. Fees for these management services are primarily determined as a percentage of gross premiums earned by the Farmers Exchanges. The finances and operations of the Farmers Exchanges are governed by independent Boards of Governors. In addition, the ZIC Group has the following relationships with the Farmers Exchanges.

### a) Certificates of contribution issued by the Farmers Exchanges

As of December 31, 2016 and 2015, FGI and other ZIC Group companies held the following certificates of contribution issued by the Farmers Exchanges. Originally these were purchased by FGI in order to supplement the policyholders' surplus of the Farmers Exchanges.

Certificates of contribution

Table 26.1		
in USD millions, as of December 31	2016	2015
6.15% certificate of contribution, due June 2021	707	707
Various other certificates of contribution	23	23
Total	730	730

Conditions governing payment of interest and repayment of principal are outlined in the certificates of contribution. Generally, repayment of principal and payment of interest may be made only when the issuer has an appropriate amount of surplus, and then only after approval is granted by the appropriate state insurance regulatory department in the U.S. Additionally, the approval by the issuer's governing board is needed for repayment of principal.

### b) Quota share reinsurance treaties with the Farmers Exchanges

The Farmers Exchanges cede risk through quota share reinsurance treaties to Farmers Reinsurance Company (Farmers Re Co), a wholly owned subsidiary of FGI, and to Zurich Insurance Company Ltd (ZIC). These treaties can be terminated after 90 days' notice by any of the parties.

The Auto Physical Damage (APD) Quota Share reinsurance agreement (APD agreement) with the Farmers Exchanges provided for annual ceded premiums of USD 500 million in 2015. The APD agreement was not renewed in 2016.

The Farmers Exchanges participate in an All Lines Quota Share reinsurance agreement (All Lines agreement) with Farmers Re Co and ZIC. The All Lines agreement provides for a cession of a quota share of the premiums written and the ultimate net losses sustained in all lines of business written by the Farmers Exchanges after the APD agreement has been applied.

Ouota share
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reinsurance treaties
remsurance treaties

Table 26.2						
in USD millions, for the years ended December 31	APD agreement		All Lines	agreement		Total
	2016 <sup>1</sup>	2015 <sup>2</sup>	2016 <sup>3</sup>	20154	2016	2015
Net earned premiums and policy fees	_	500	1,521	1,766	1,521	2,266
Insurance benefits and losses, net <sup>5</sup>	(1)	(365)	(1,084)	(1,223)	(1,085)	(1,588)
Total net technical expenses <sup>6</sup>	_	(139)	(487)	(565)	(487)	(704)
Net underwriting result	(1)	(3)	(50)	(23)	(51)	(26)

- <sup>1</sup> The APD agreement was not renewed in 2016. Net underwriting result in 2016 reflects adverse development on prior year's business in run-off.
- <sup>2</sup> Farmers Re Co assumed 7.0 percent and ZIC assumed 64.0 percent. The remaining 29.0 percent was assumed by a third party on the same terms as Farmers Re Co and ZIC.
  <sup>3</sup> From January 1, 2016, ZIC assumed a 8.0 percent quota share. Another 12.0 percent was assumed by third parties. Subject to the approval of the California Department of Insurance, effective December 31, 2016. ZIC assumed an 8.0 percent quota share, while another 16.0 percent is assumed by third parties.
- <sup>4</sup> From January 1, 2015, Farmers Re Co and ZIC assumed a 1.0 percent and 9.0 percent respective quota share. Another 4.0 percent was assumed by a third party. Effective December 31, 2015. ZIC assumed an 8.0 percent quota share, while another 12.0 percent is assumed by third parties. Farmers Re Co ceased its participation
- in the All Lines agreement, effective December 31, 2015.
  Under the All Lines agreement the Farmers Exchanges catastrophe losses are subject to a provisional maximum of USD 1.3 billion dependent on loss experience and
- recoveries at a specified rate for each year. Based on results for 2016, the total catastrophe recoveries subject to the All Lines agreement was USD 1.2 billion.

  6 Under the APD agreement the ceding commission for acquisition expenses was 27.7 percent and the ceding commission for unallocated loss adjustment expenses was 10.0 percent. Under the All Lines agreement, the Farmers Exchanges receive a ceding commission of 26.7 percent, 8.2 percent of premiums for unallocated loss adjustment expenses (8.4 percent in 2015) and 5.3 percent of premiums for other expenses.

### c) Farmers management fees and other related revenues

FGI through its attorney-in-fact (AIF) contracts with the Farmers Exchanges, which are managed but not owned by Farmers Group, Inc., a wholly owned subsidiary of the Zurich Insurance Group, is permitted by policyholders to receive a management fee of up to 20 percent (up to 25 percent in the case of the Fire Insurance Exchange) of the gross premiums earned by the Farmers Exchanges.

FGI has historically charged a lower management fee than the amount allowed by policyholders. The range of fees has varied by line of business over time and from year to year. The gross earned premiums of the Farmers Exchanges were USD 19,528 million and USD 18,885 million for the years ended December 31, 2016 and 2015, respectively.

### 27. Segment information

The ZIC Group pursues a customer-centric strategy and is managed on a matrix basis, reflecting both businesses and geography. The ZIC Group's reportable segments have been identified on the basis of the businesses operated by the ZIC Group and how these are strategically managed to offer different products and services to specific customer groups. Segment information is presented accordingly. The ZIC Group's reportable segments are as follows:

**General Insurance** provides a variety of motor, home and commercial products and services for individuals, as well as small and large businesses.

**Global Life** pursues a strategy of providing market-leading unit-linked, protection and corporate propositions through global distribution and proposition pillars to develop leadership positions in its chosen segments.

**Farmers**, through Farmers Group, Inc. and its subsidiaries (FGI), provides certain non-claims administrative and management services to the Farmers Exchanges. This segment also includes all reinsurance assumed from the Farmers Exchanges by the ZIC Group. Farmers Exchanges are prominent writers of personal and small commercial lines of business in the U.S.

For the purpose of discussing financial performance the ZIC Group considers General Insurance, Global Life and Farmers to be its core business segments.

**Other Operating Businesses** predominantly consist of the ZIC Group's Holding and Financing and Headquarters activities. Certain alternative investment positions not allocated to business operating segments are included within Holding and Financing.

**Non-Core Businesses** include insurance and reinsurance businesses that the ZIC Group does not consider core to its operations and are therefore mostly managed to achieve a beneficial run-off. Non-Core businesses are mainly situated in the U.S., Bermuda and the UK.

The ZIC Group also manages two of the three core segments on a secondary level.

General Insurance is managed based on market-facing businesses, including:

- → Global Corporate
- → North America Commercial
- → Europe, Middle East & Africa (EMEA)
- → Latin America
- → Asia Pacific

For external reporting purposes Latin America and Asia Pacific are aggregated into International Markets.

Global Life is managed on a regional-based structure within a global framework, including:

- → North America
- → Latin America
- → Europe, Middle East & Africa (EMEA)
- → Asia Pacific

### Change in the structure of the Group

On June 10, 2016, Zurich announced a planned change in the structure of the ZIC Group, effective July 1, 2016, which will lead to a simpler, more customer-oriented structure and reduced complexity. The new business structure will be focused on geographic regions in our core businesses of Property and Casualty (P&C) and Life – Asia Pacific, Europe, Middle East and Africa (EMEA), Latin America and North America – as well as Farmers, Group Functions and Operations and Non-Core Businesses. On September 20, 2016, Zurich announced further changes to the business structure of the ZIC Group by creating a new unit, called Commercial Insurance, which will combine its Corporate and Commercial business into a single global business. The new reporting structure will be reflected in the consolidated financial statements in 2017.

### **Business operating profit**

The segment information includes the ZIC Group's internal performance measure, business operating profit (BOP). This measure is the basis on which the ZIC Group manages all of its business units. It indicates the underlying performance of the ZIC Group's business units, after non-controlling interests, by eliminating the impact of financial market volatility and other non-operational variables. BOP reflects adjustments for shareholders' taxes, net capital gains/(losses) and impairments on investments (except for the capital markets and property lending/banking operations included in Non-Core Businesses, investments in hedge funds, certain securities held for specific economic hedging purposes and policyholders' share of investment results for the life businesses) and non-operational foreign exchange movements. Significant items arising from special circumstances, including restructuring charges, charges for litigation outside the ordinary course of business, gains and losses on divestments of businesses, impairments of goodwill and the change in estimates of earn-out liabilities (with the exception of experience adjustments, which remain in BOP) are also excluded from BOP.

Business	operating
profit by	segment

Table 27.1					
in USD millions, for the years ended December 31	Gener	ral Insurance		Global Life	
	2016	2015	2016	2015	
Revenues					
Direct written premiums	31,770	32,274	13,194	12,033	
Assumed written premiums	1,352	1,746	218	186	
Gross Written Premiums	33,122	34,020	13,413	12,220	
Policy fees	_	_	2,117	2,227	
Gross written premiums and policy fees	33,122	34,020	15,530	14,446	
Less premiums ceded to reinsurers	(7,014)	(5,634)	(874)	(2,489)	
Net written premiums and policy fees	26,108	28,386	14,656	11,957	
Net change in reserves for unearned premiums	(6)	(335)	(119)	(82)	
Net earned premiums and policy fees	26,102	28,051	14,537	11,876	
Farmers management fees and other related revenues	-	-	_	_	
Net investment result on Group investments	2,086	2,002	3,884	4,415	
Net investment income on Group investments	2,019	2,002	3,244	3,320	
Net capital gains/(losses) and impairments on Group investments	67	_	640	1,095	
Net investment result on unit-linked investments	_	_	13,298	6,168	
Other income	646	836	823	1,039	
Total BOP revenues	28,834	30,889	32,543	23,498	
of which: inter-segment revenues	(349)	(530)	(318)	(316)	
Benefits, losses and expenses					
Insurance benefits and losses, net	17,675	20,152	11,510	8,612	
Losses and loss adjustment expenses, net	17,677	20,157	_	_	
Life insurance death and other benefits, net	(2)	(4)	11,510	8,612	
Policyholder dividends and participation in profits, net	7	3	14,114	7,706	
Income tax expense/(benefit) attributable to policyholders	_	_	304	110	
Underwriting and policy acquisition costs, net	5,765	5,907	2,282	2,454	
Administrative and other operating expense					
(excl. depreciation/amortization)	2,963	3,636	2,396	2,463	
Interest credited to policyholders and other interest	104	112	455	445	
Restructuring provisions and other items not included in BOP	(321)	(372)	(277)	(435)	
Total BOP benefits, losses and expenses					
(before interest, depreciation and amortization)	26,193	29,437	30,785	21,355	
Business operating profit					
(before interest, depreciation and amortization)	2,641	1,452	1,758	2,143	
Depreciation and impairments of property and equipment	109	127	22	28	
Amortization and impairments of intangible assets	148	252	126	578	
Interest expense on debt	97	101	10	14	
Business operating profit before non-controlling interests	2,286	972	1,600	1,523	
Non-controlling interests	133	108	264	232	
Business operating profit	2,154	864	1,335	1,290	

Global Life includes approximately USD 3,968 million and USD 2,701 million of gross written premiums and future life policyholder benefits for certain universal life-type contracts in the Group's Spanish operations for the years ended December 31, 2016 and 2015, respectively (see note 3).

Total		liminations	E	Businesses	Non-Core	Businesses	Other Operating	Farmers		
2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	
44,374	45,024	_	_	67	59	_	_	_	_	
4,116	3,184	(98)	(101)	90	80	47	48	2,145	1,587	
48,490	48,208	(98)	(101)	156	139	47	48	2,145	1,587	
2,508	2,407	_	_	281	290	_	_	_	_	
50,998	50,615	(98)	(101)	437	429	47	48	2,145	1,587	
(8,078)	(7,843)	98	101	(11)	(13)	(41)	(43)	-	_	
42,920	42,772	_	_	426	416	6	6	2,145	1,587	
(296)	(150)	_	_	_	40	_	_	120	(65)	
42,624	42,622	_	_	426	456	6	6	2,266	1,521	
2,786	2,867	_	_	_	_	_	_	2,786	2,867	
6,618	6,185	(425)	(397)	276	278	301	295	49	39	
5,553	5,487	(425)	(397)	307	288	301	295	49	39	
1,065	698	-	_	(31)	(10)	-	_	-	_	
6,238	13,613	-	_	70	315	-	_	-	_	
1,383	1,182	(1,672)	(1,373)	40	44	1,085	955	56	86	
59,649	66,469	(2,097)	(1,770)	812	1,093	1,392	1,256	5,156	4,513	
		2,097	1,770	(33)	(4)	(1,209)	(1,078)	(10)	(20)	
30,746	30,806	_	_	394	536	_	_	1,588	1,085	
21,862	18,849	_	_	118	88	_	_	1,588	1,085	
8,884	11,957	_	_	276	448	_	_	_	_	
7,863	14,519	_	_	154	398	-	_	-	_	
110	304	_	_	_	_	_	_	_	_	
9,061	8,538	(10)	(7)	7	11	_	_	703	487	
7,400	6,860	(1,333)	(1,067)	92	109	1,203	1,163	1,340	1,297	
461	473	(315)	(281)	84	76	136	120	_	_	
(918)	(665)	_	_	_	(1)	(97)	(65)	(14)	(2)	
54,724	60,835	(1,659)	(1,355)	730	1,129	1,243	1,217	3,618	2,867	
4,925	5,634	(438)	(415)	82	(35)	149	39	1,538	1,647	
198	174	-	-	-	-	7	9	36	33	
1,003	416	-	-	_	-	92	49	81	93	
432	425	(438)	(415)	9	10	746	722		_	
3,292	4,619			72	(46)	(696)	(741)	1,421	1,520	
397	459		_		(1)	(6)	(5)	64	69	
2,895	4,159	_	-	73	(45)	(689)	(736)	1,357	1,451	

**Reconciliation of BOP** to net income after income taxes

Table 27.2					
in USD millions, for the years ended December 31	Genera	al Insurance		Global Life	
	2016	2015	2016	2015	
Business operating profit	2,154	864	1,335	1,290	
Revenues/(expenses) not included in BOP:					
Net capital gains/(losses) on investments and impairments,					
net of policyholder allocation	499	466	167	240	
Net gain/(loss) on divestments of businesses <sup>1</sup>	(134)	_	47	_	
Restructuring provisions	(200)	(314)	(46)	(71)	
Net income/(expense) on intercompany loans <sup>2</sup>	(12)	(17)	(15)	(17)	
Impairments of goodwill	_	_	_	(281)	
Change in estimates of earn-out liabilities	(29)	29	(89)	(21)	
Other adjustments <sup>3</sup>	(80)	(70)	(127)	(44)	
Add back:					
Business operating profit attributable to non-controlling interests	133	108	264	232	
Net income before shareholders' taxes	2,330	1,066	1,537	1,328	
Income tax expense/(benefit) attributable to policyholders	_	_	304	110	
Net income before income taxes	2,330	1,066	1,841	1,439	
Income tax (expense)/benefit					
attributable to policyholders					
attributable to shareholders					
Net income after taxes					
attributable to non-controlling interests					
attributable to shareholders					

<sup>&</sup>lt;sup>1</sup> In 2016, USD 134 million of losses in General Insurance include USD (137) million relating to the sale of businesses in South Africa and Morocco and the re-measurements of assets held for sale and USD 47 million of gains in Global Life relate to a forward sale agreement of a UK based distributor (see note 5).

<sup>2</sup> The impact on ZIC Group level relates to foreign currency translation differences.

<sup>3</sup> For the year ended December 31, 2016, total ZIC Group includes non-operating charges of USD (169) million and accounting and other restructuring charges of USD (199) million (of which USD (67) million relates to software impairments and USD (32) million to impairments of own use properties (see note 14 and 13, respectively) and USD 100 million of other restructuring related costs) relating to initiatives announced in 2015. In addition, it includes other adjustments amounting to USD 2 million.

	Farmers	Other Operat	ting Businesses	Non-0	Core Businesses		Total
2016	2015	2016	2015	2016	2015	2016	2015
1,451	1,357	(736)	(689)	(45)	73	4,159	2,895
8	20	26	154	164	8	863	889
_	_	(2)	10	_	_	(89)	10
(1)	(13)	(66)	(49)	(1)	_	(313)	(447)
_	_	27	33	_	_	_	(1)
_	_	_	_	_	_	_	(281)
_	_	_	_	_	_	(119)	8
(1)	(1)	(27)	(81)	_	_	(234)	(197)
69	64	(5)	(6)	(1)	_	459	397
1,526	1,427	(783)	(629)	117	80	4,727	3,273
_	_	_	_	_	_	304	110
1,526	1,427	(783)	(629)	117	80	5,031	3,383
						(1,802)	(1,273)
						(304)	(110)
						(1,498)	(1,163)
						3,229	2,110
						319	252
						2,911	1,859

Assets and liabilities by segment

Table 27.3				el 1 1116	
		eral Insurance		Global Life	
in USD millions, as of December 31	2016	2015	2016	2015	
Assets					
Total Group Investments	81,271	82,669	104,812	103,229	
Cash and cash equivalents	10,766	9,756	3,402	3,049	
Equity securities	8,406	10,053	6,884	8,113	
Debt securities	53,634	54,773	75,074	70,919	
Investment property	4,016	3,611	6,295	5,844	
Mortgage loans	1,285	1,329	5,508	5,695	
Other loans	3,159	3,143	7,635	9,597	
Investments in associates and joint ventures	5	4	13	11	
Investments for unit-linked contracts	_	-	115,038	115,559	
Total investments	81,271	82,669	219,850	218,788	
Reinsurers' share of reserves for insurance contracts	11,852	11,073	3,447	3,657	
Deposits made under assumed reinsurance contracts	142	90	82	63	
Deferred policy acquisition costs	4,830	4,226	12,783	13,298	
Deferred origination costs	_	_	426	506	
Goodwill	808	465	168	5	
Other intangible assets	1,461	1,384	2,864	2,900	
Other assets	15,008	14,121	6,904	6,045	
Total assets (after cons. of investments in subsidiaries)	115,371	114,029	246,524	245,262	
Liabilities					
Liabilities for investment contracts	_	_	68,904	70,406	
Reserves for insurance contracts, gross	72,191	73,502	143,667	140,799	
Reserves for losses and loss adjustment expenses, gross	56,355	57,777	_	_	
Reserves for unearned premiums, gross	15,781	15,664	_	_	
Future life policyholder benefits, gross	33	36	68,428	67,717	
Policyholder contract deposits and other funds, gross	22	25	20,579	19,858	
Reserves for unit-linked contracts, gross	_	_	54,660	53,224	
Senior debt	415	517	_	68	
Subordinated debt	905	1,081	593	708	
Other liabilities	21,491	18,512	16,042	15,787	
Total liabilities	95,002	93,612	229,206	227,769	
Total liabilities Equity					
Total liabilities Equity Shareholders' equity					
Total liabilities Equity Shareholders' equity Non-controlling interests					
Total liabilities Equity Shareholders' equity Non-controlling interests Total equity					
Total liabilities  Equity Shareholders' equity Non-controlling interests Total equity Total liabilities and equity					
Total liabilities  Equity Shareholders' equity Non-controlling interests Total equity  Total liabilities and equity Supplementary information					
Total liabilities  Equity Shareholders' equity Non-controlling interests Total equity  Total liabilities and equity					

Total		Eliminations	1	Businesses	Non-Core	g Businesses	Other Operating	Farmers	
2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
191,918	190,072	(27,003)	(29,143)	9,503	9,089	20,266	21,677	3,253	2,366
7,849	7,129	(17,240)	(20,711)	1,327	1,619	9,644	10,604	1,312	1,449
19,194	16,240	_	_	98	115	886	817	43	18
137,685	140,181	(1,195)	(1,142)	6,285	5,901	6,330	6,562	574	152
9,865	10,562	_	_	325	220	10	10	74	21
7,024	6,794	_	_	_	_	_	_	_	_
10,282	9,146	(8,569)	(7,291)	1,466	1,232	3,396	3,685	1,249	726
18	20	_	_	3	2	1	_	_	_
126,728	125,907	_	_	11,169	10,868	_	_	_	_
318,646	315,979	(27,003)	(29,143)	20,672	19,958	20,266	21,677	3,253	2,366
17,774	18,347	(84)	(64)	3,127	3,113	_	_	_	_
1,708	1,764	_	_	79	65	_	_	1,476	1,476
17,677	17,796	3	1	_	15	_	_	149	167
506	426	_	_	-	_	_	_	_	_
1,289	1,795	_	_	_	_	_	_	819	819
4,766	4,795	_	_	_	_	129	99	353	370
20,277	22,065	(3,786)	(4,067)	1,380	1,677	989	981	1,528	1,562
382,642	382,967	(30,871)	(33,273)	25,259	24,827	21,384	22,758	7,578	6,760
70,627	69,113	_	_	221	209	_	_	_	_
237,622	238,641	(84)	(64)	21,715	21,277	28	26	1,663	1,543
62,971	61,470	(75)	(59)	4,142	4,234	23	22	1,103	918
16,230	16,416	(10)	(4)	13	12	3	3	560	625
71,952	72,440	_	_	4,198	3,978	2	2	_	_
22,076	22,785	_	_	2,193	2,183	_	_	_	_
64,393	65,530	_	_	11,169	10,870	_	_	_	_
4,656	4,239	(6,456)	(5,531)	659	300	9,867	9,054	_	_
5,614	7,050	(2,572)	(2,189)	23	_	6,374	7,741	_	_
32,321	32,269	(21,757)	(25,488)	3,462	3,272	14,964	15,598	1,354	1,355
350,841	351,311	(30,869)	(33,272)	26,080	25,058	31,232	32,419	3,017	2,898
29,646	29,363								
2,155	2,292								
31,801	31,656								
382,642	382,967								
								_	
677	715					31	31	162	148

## Consolidated financial statements (continued)

	Table 27.4						
General Insurance –	in USD millions		Gross writt	en premiums	and policy	Property, equip	ment and
Revenues and			fees	from external	customers	intang	ible assets
non-current assets					of which		
by region			Total	Global	Corporate	_	
		for the y	ears ended	for the ye	ears ended		
			ecember 31	De	cember 31	as of De	cember 31
		2016	2015	2016	2015	2016	2015
	North America						
	United States	14,166	13,363			763	254
	Canada	559	744			11	13
	Bermuda	4	10			13	16
	North America	14,729	14,117	2,945	3,545	786	282
	Europe						
	United Kingdom	3,020	3,747			261	305
	Germany	2,696	2,709			139	166
	Switzerland	3,006	3,060			456	517
	Italy	1,405	1,502			35	32
	Spain	1,157	1,237			317	328
	Austria	532	526			25	20
	Ireland	353	306			45	47
	Portugal	250	265			17	18
	France	321	359			1	1
	Rest of Europe	703	743			123	152
	Europe	13,444	14,453	3,568	3,956	1,418	1,587
	Latin America						
	Argentina	422	469			6	9
	Brazil	958	942			386	285
	Chile	301	272			21	21
	Mexico	574	620			145	178
	Venezuela	57	211			1	_
	Rest of Latin America	7	19			5	6
	Latin America	2,319	2,533	418	348	564	499
	Asia Pacific						
	Australia	581	740			42	44
	Hong Kong	307	284			29	12
	Japan	769	671			19	16
	Taiwan	109	122			-	16
	Malaysia	171	165			35	2
	Rest of Asia Pacific	265	259			4	5
	Asia Pacific	2,202	2,241	550	533	128	95
	Middle East	122	232	107	181	_	37
	Africa						
	South Africa	208	311			_	13
	Morocco	92	128			_	24
	Africa	301	440	32	48	_	37
	Total	33,115	34,016	7,621	8,612	2,896	2,537

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Table 27.5							
in USD millions	Gross written	•					
		y fees from			Property, equipment and		
	external customers		Life insuran	ce deposits		ible assets	
					in USD millio		
	-	ears ended	_	ears ended	years ended		
		ecember 31		cember 31		31	
	2016	2015	2016	2015	2016	2015	
North America							
United States	1,024	983	389	434	113	140	
North America	1,024	983	389	434	113	140	
Latin America							
Chile	561	425	91	59	254	257	
Argentina	141	165	61	66	24	31	
Mexico	367	364	29	12	119	151	
Venezuela	3	31	_	_	_	_	
Brazil	1,177	1,118	1,915	1,565	498	421	
Uruguay	9	8	_		_	_	
Latin America	2,259	2,111	2,097	1,702	895	861	
Europe, Middle East & Africa							
United Kingdom	1,409	1,673	4,636	3,971	208	260	
Germany	2,018	2,544	1,895	1,926	231	308	
Switzerland	1,255	1,421	166	158	70	71	
Ireland <sup>1</sup>	534	631	2,432	2,972	11	5	
Spain	5,008	3,264	34	75	1,261	1,381	
Italy	452	437	1,524	1,537	49	58	
Zurich International Life <sup>2</sup>	333	279	1,308	1,479	21	30	
Portugal	24	22	170	132	_	_	
Austria	134	151	51	60	24	24	
Luxembourg <sup>1</sup>	19	14	2	16	_	_	
Europe, Middle East & Africa	11,186	10,439	12,218	12,327	1,874	2,138	
Asia Pacific							
Hong Kong	62	68	30	36	_	_	
Taiwan	_	_	_	_	_	_	
Indonesia	20	11	_	_	1	1	
Australia	363	309	37	38	205	_	
Japan	191	112	_	1	17	16	
Singapore	_	8	_	5	_	_	
Malaysia	171	158	46	46	77	20	
Asia Pacific	807	667	114	127	300	38	
Other							
International Group Risk Solutions <sup>3</sup>	209	201	_	_	_	_	
Other	209	201	_	_	_	_	
Total	15,484	14,400	14,817	14,591	3.183	3,177	

Includes business written under freedom of services and freedom of establishment in Europe, and the related assets.
 Includes business written through licenses, mainly into Asia Pacific and Middle East, and the related assets.
 Includes business written through licenses into all regions.

### 28. Interest in subsidiaries

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

Significant subsidiaries – non-listed

Table 28.1						
as of December 31, 2016					No	minal value
					of s	hare capital
	Registered		Voting	Ownership	(in lo	cal currency
	office	Segment <sup>1</sup>	rights %	interest %		millions)
Australia						
Zurich Australia Limited	Sydney	Global Life	100	100	AUD	426.5
Zurich Australian Insurance Limited	Sydney	General Insurance	100	100	AUD	6.6
Austria						
		General Insurance/				
Zürich Versicherungs-Aktiengesellschaft	Vienna	Global Life	99.98	99.98	EUR	12.0
Brazil						
Zurich Santander Brasil Seguros						
e Previdência S.A.	Sao Paulo	Global Life	51	51	BRL	1,659.2
		General Insurance/				
Zurich Minas Brasil Seguros S.A.	Belo Horizonte	Global Life	100	100	BRL	3,109.6
Chile						
Chilena Consolidada Seguros de Vida S.A.	Santiago	Global Life	98.99	98.99	CLP	24,484.0
Zurich Santander Seguros de Vida Chile S.A.	Santiago	Global Life	51	51	CLP	24,252.9
Germany						
Deutscher Herold Aktiengesellschaft	Bonn	Global Life	100	100	EUR	18.4
Zürich Beteiligungs-Aktiengesellschaft						
(Deutschland)	Frankfurt	General Insurance	100	100	EUR	152.9
Zurich Deutscher Herold Lebensversicherung						
Aktiengesellschaft	Bonn	Global Life	100	100	EUR	68.5
Zurich GI Management Aktiengesellschaft						
(Deutschland)	Frankfurt	General Insurance	100	100	EUR	10.0
Ireland						
Zurich Life Assurance plc	Dublin	Global Life	100	100	EUR	17.5
		Other Operating				
Zurich Holding Ireland Limited	Dublin	Businesses	100	100	EUR	0.1
Zurich Insurance plc	Dublin	General Insurance	100	100	EUR	8.2
Italy						
Zurich Investments Life S.p.A.	Milan	Global Life	100	100	EUR	164.0
Luxembourg						
Zurich Eurolife S.A.	Bertrange	Global Life	100	100	EUR	35.5
Malaysia						
		General Insurance/				
Zurich Insurance Malaysia Berhad	Kuala Lumpur	Global Life	100	100	MYR	579.0
Mexico						
		General Insurance/				
Zurich Santander Seguros México, S.A. <sup>2</sup>	Mexico City	Global Life	51	51	MXN	190.0

Significant subsidiaries – non-listed (continued)

Table 20.4						
Table 28.1						
as of December 31, 2016						minal value
				0 1:		hare capital
	D 14 1 10		Voting	Ownership	(in lo	cal currency
et.	Registered office	Segment <sup>1</sup>	rights %	interest %		millions)
Spain	D 1	CL L LL'C			FLID	7.0
Bansabadell Pensiones, E.G.F.P, S.A. <sup>3</sup>	Barcelona	Global Life	50	50	EUR	7.8
Bansabadell Seguros Generales, S.A. <sup>3</sup>		6 11	=-			400
de Seguros y Reaseguros	Barcelona	General Insurance	50	50	EUR	10.0
Bansabadell Vida S.A. de Seguros <sup>3</sup>						
y Reaseguros	Barcelona	Global Life	50	50	EUR	43.9
Zurich Latin America Holding S.L. –		Other Operating				
Sociedad Unipersonal	Barcelona	Businesses	100	100	EUR	43.0
Zurich Santander Holding (Spain), S.L.	Madrid	Global Life	51	51	EUR	94.3
Zurich Santander Holding Dos (Spain),						
S.L.	Madrid	Global Life	51	51	EUR	40.0
Zurich Santander Insurance America, S.L.	Madrid	Global Life	51	51	EUR	177.0
Zurich Vida, Compañía de Seguros y						
Reaseguros, S.A. – Sociedad Unipersonal	Madrid	Global Life	100	100	EUR	56.4
Switzerland						
Genevoise Real Estate Company Ltd	Geneva	Global Life	100	100	CHF	20.4
		Other Operating				
Zurich Finance Company AG	Zurich	Businesses	100	100	CHF	0.2
		Other Operating				
Zurich Investment Management AG	Zurich	Businesses	100	100	CHF	10.0
zanen investment management ne	2011011	Other Operating				
Zurich Life Insurance Company Ltd <sup>4</sup>	Zurich	Businesses	100	100	CHF	60.0
Zürich Rückversicherungs-Gesellschaft	Zuiicii	Dusiriesses	100	100	CIII	00.0
AG	Zurich	General Insurance	100	100	CHF	11.7
Taiwan	Zuncn	General insurance	100	100	CHI	11.7
	Tainai	Conoral Incurrence	00.72	100	TMD	2,000,0
Zurich Insurance (Taiwan) Ltd.	Taipei	General Insurance	99.73	100	TWD	2,000.0
Turkey	lata alaud	C	100	100	TDV	1000
Zurich Sigorta A.S.	Istanbul	General Insurance	100	100	TRY	168.9
United Kingdom						
		Other Operating				
Allied Zurich Holdings Limited	St. Hélier	Businesses	100	100	GBP	90.8
	Cheltenham,					
Zurich Assurance Ltd	England	Global Life	100	100	GBP	236.1
	Cheltenham,					
Zurich Employment Services Limited	England	Global Life	100	100	GBP	154.0
	Cheltenham,	Other Operating				
Zurich Financial Services (UKISA) Limited	England	Businesses	100	100	GBP	1,692.1
		Other Operating				
Zurich Holdings (UK) Limited	Fareham, England	Businesses	100	100	GBP	137.3
Zurich International Life Limited	Douglas, Isle of Man	Global Life	100	100	GBP	123.4
	Cheltenham,	Other Operating				
Zurich Project Finance (UK) Limited	England	Businesses	100	100	GBP	0.000001
Zurich (Scotland) Limited Partnership <sup>5</sup>	Edinburgh	Global Life	100	100	GBP	_
	<u>J</u>	Other Operating				
Zurich UK General Services Limited	Fareham, England	Businesses	100	100	GBP	173.1
	- ,g					

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

Table 28.1						
as of December 31, 2016					No	minal value
					of s	hare capital
	Registered		Voting	Ownership	(in lo	cal currency
	office	Segment <sup>1</sup>	rights %	interest %		millions)
United States of America						
Farmers Group, Inc. <sup>6</sup>	Reno, NV	Farmers	87.90	95.38	USD	0.001
Farmers New World Life Insurance	Mercer Island,					
Company <sup>6</sup>	WA	Global Life	87.90	95.38	USD	6.6
Farmers Reinsurance Company <sup>6</sup>	Woodland Hills	Farmers	87.90	95.38	USD	58.8
		Other Operating				
ZFS Finance (USA) LLC V <sup>5</sup>	Wilmington, DE	Businesses	100	100	USD	_
Zurich American Corporation	Wilmington, DE	Non-Core Businesses	100	100	USD	0.00001
Zurich American Insurance						
Company (and subsidiaries)	New York, NY	General Insurance	100	100	USD	5.0
Rural Community Insurance Company	Anoka, MN	General Insurance	100	100	USD	5.0
		Global Life/				
Zurich American Life Insurance Company	Schaumburg, IL	Non-Core Businesses	100	100	USD	2.5
		Other Operating				
Zurich Holding Company of America, Inc. <sup>7</sup>	Wilmington, DE	Businesses	100	100	USD	_

<sup>The controlling shareholder of this subsidiary is Zurich Santander Holding Dos (Spain), S.L.
Relates to Bansabadell insurance entities which are controlled by the ZIC Group.
The results of the operating activities are included in the Global Life segment, whereas the Headquarters' activities are included in Other Operating Businesses.
These entities are LLCs or partnerships and have no share capital.
The ownership percentages in Farmers Group, Inc. and its fully owned subsidiaries have been calculated based on the participation rights of Zurich Insurance Group in a situation of liquidation, dissolution or winding up of Farmers Group, Inc.
Shares have no nominal value in accordance with the company's articles of incorporation and local legislation.</sup> 

Due to the nature of the insurance industry, the ZIC Group's business is subject to extensive regulatory supervision, and companies in the ZIC Group are subject to numerous legal restrictions and regulations. These restrictions may refer to minimum capital requirements or the ability of the ZIC Group's subsidiaries to pay dividends imposed by regulators in the countries in which the subsidiaries operate. These are considered industry norms, generally applicable to insurers who operate in the same markets.

For Zurich Santander Insurance America, S.L. and its subsidiaries, and the Bansabadell insurance entities, certain protective rights exist, which, amongst others, include liquidation, material sale of assets, transactions impacting the legal ownership structure, dividend distribution and capital increase, distribution channel partnerships and governance, which are not quantifiable.

For details on the ZIC Group's capital restrictions, see the capital management section in the Risk review, which forms an integral part of the consolidated financial statements.

Table 28.2 shows the summarized financial information for each subsidiary that has non-controlling interests that are material to the ZIC Group.

# Non-controlling interests

Table 28.2						
in USD millions, as of December 31	Zurich Santa	ander Insurance				
		America, S.L.				
	and	and its subsidiaries		Bansabadell insurance entities		
	2016	2015	2016	2015		
Non-controlling interests percentage	49%	49%	50%	50%		
Total Investments	12,952	9,031	8,760	6,825		
Other assets	3,089	2,728	2,676	1,851		
Insurance and investment contract liabilities <sup>1</sup>	13,203	9,231	9,335	6,564		
Other liabilities	1,207	1,102	498	489		
Net assets	1,631	1,426	1,603	1,622		
Non-controlling interests in net assets	799	699	802	811		
Total revenues	3,342	2,922	5,144	3,430		
Net income after taxes	369	349	61	23		
Other comprehensive income	101	(470)	(53)	(195)		
Total comprehensive income	470	(120)	7	(172)		
Non-controlling interests in total comprehensive income	230	(59)	4	(86)		
Dividends paid to non-controlling interests	124	133	_	28		

<sup>&</sup>lt;sup>1</sup> Includes reserves for premium refunds, liabilities for investment contracts, deposits received under ceded reinsurance contracts, deferred front-end fees and reserves for insurance contracts.

### 29. Events after the balance sheet date

In the UK, the Government mandates the discount rates to be applied to personal injury claims. Payment to claimants is either via a lump sum amount or a periodic payment option. The lump sum amount is calculated using Ogden tables defined by the Lord Chancellor of the UK Ministry of Justice. A critical component of the Ogden tables is the discount rate, which was 2.5 percent as of December 31, 2016 and had been in effect since 2001. The Ministry of Justice announced its intention to review the discount rate in December 2016. On February 27, 2017, the UK Ministry of Justice announced the outcome of its review of the Ogden discount rate. The discount rate was changed from 2.5 percent to minus 0.75 percent. The ZIC Group was reserved at an assumed discount rate of 1 percent. The impact of the change in rate to minus 0.75 percent was an increase in reserves for losses and loss adjustment expenses of USD 315 million. The ZIC Group has reflected the full impact within the consolidated financial statements 2016 (see note 8).

On January 17, 2017, the ZIC Group completed the sale of its general insurance operations in Taiwan to Hotai Motor Co., Ltd. for a sales price of approximately USD 214 million.

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## Report of the statutory auditor

### Report of the statutory auditor

To the General Meeting of Zurich Insurance Company Ltd, Zurich

Report on the audit of the consolidated financial statements

#### **Opinion**

We have 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 (pages 37 to 136 and the risk review on pages 3 to 25) for the year ended December 31, 2016.

In our opinion the accompanying consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at December 31, 2016, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with the International Financial Reporting Standards (IFRS) and comply with Swiss law.

#### **Basis for opinion**

We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISAs) and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report.

We are independent of the Group in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession, as well as the IESBA Code of Ethics for Professional Accountants, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Our audit approach

### Overview

Materiality	→ Overall Group materiality: USD 225 million
Audit scope	→ We concluded full scope audit work at 20 business units in 10 countries.
	→ The full scope audit work addressed 70% and 81% of the Group's gross written premiums
	and policy fees (GWP) and total assets, respectively.
	→ In addition, specific procedures were performed on a further 19 business units in 11 countries
	representing a further 11% and 8% of the Group's GWP and total assets, respectively.
Key audit matters	The following are the key audit matters we have identified:
	→ Valuation of actuarially determined life insurance assets and liabilities
	→ Valuation of General Insurance reserves
	→ Recoverability of goodwill, distribution agreements and attorney-in-fact contracts

### Audit scope

We designed our audit by determining materiality and assessing the risks of material misstatement in the consolidated financial statements. In particular, we considered where subjective judgments were made; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

In establishing the overall approach to the Group audit, we determined the type of work that needed to be performed at the business units by us, as the Group engagement team, or by component auditors from PwC network firms operating under our instruction. Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work at those business units to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the consolidated financial statements of the Group as a whole.

The Group's business units vary significantly in size and we identified 20 which, in our view, required an audit of their complete financial information, due to their size or risk characteristics. Audits of these business units were performed using materiality levels lower than the materiality level for the Group as a whole, ranging from USD 20 million to USD 130 million, and established by reference to the size of, and risks associated with, the business concerned. Specific audit procedures on certain balances and transactions were performed at a further 19 business units. Together these accounted for 81% and 89% of Group GWP and total assets, respectively.

Our involvement included various site visits and component auditor working paper reviews across significant business units, together with discussions around audit approach and any issues arising from the work, and conference calls with the component audit teams.

#### Materiality

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the consolidated financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgment, we determined certain quantitative thresholds for materiality, including the overall Group materiality for the consolidated financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of any misstatements, both individually and in aggregate on the consolidated financial statements as a whole.

### Materiality

Overall group materiality	Overall Group materiality: USD 225 million	
How we determined it	We determined our materiality for the audit of the consolidated financial statements using	
	quantitative and qualitative factors. Based on these factors we have selected a combined	
	3 year average of net income before income taxes (NIBIT) and business operating profit (BOP)	
	as appropriate benchmarks for measuring materiality. We applied a 5% rule of thumb which	
	resulted in an overall materiality of USD 225 million.	
Rationale for the materiality	We chose NIBIT as a benchmark because, in our view, it is the benchmark against which the	
benchmark applied	Group's performance is most commonly measured, and is a generally accepted benchmark.	
	We also consider BOP as a benchmark because, in our view, BOP is a key indicator for analysts	
	and external parties and may influence the users of the consolidated financial statements.	

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above USD 20 million as well as any misstatements below that amount which, in our view, warranted reporting for qualitative reasons.

## Report of the statutory auditor (continued)

#### **Key audit matters**

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

### Valuation of actuarially determined life insurance assets and liabilities Key audit matter

The Group's valuation of the actuarially determined life insurance assets (including deferred policy acquisition costs, deferred origination costs, and present value of future profits) and liabilities (reserves for insurance contracts and deferred front-end fees) is based on complex actuarial methodologies and models and involves comprehensive assumption setting processes with regards to future events. Actuarial assumptions selected by the Group with respect to interest rates, investment returns, mortality, morbidity, longevity, persistency, expenses, stock market volatility and future policyholder behavior and the underlying methodologies and assumptions used may result in material impacts on the valuation of actuarially determined life insurance assets and liabilities.

Specifically, the continued low interest rate environment results in reduced investment returns creating a risk of accelerated amortization of deferred policy acquisition costs and a strain on the sufficiency of reserves for traditional life insurance contracts and also influences policyholders' behaviors.

Refer to Notes 4 and 8 to the consolidated financial statements.

### How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls over actuarial methodology, integrity of data used in the actuarial valuation, and the assumptions setting processes used by management related to the valuation of actuarially determined life insurance assets and liabilities.

In relation to the particular matters set out above, our substantive testing procedures included the following:

- → Tested the completeness and accuracy of underlying data to source documentation.
- → Involved our life insurance actuarial specialists to independently test management's methodology and the assumptions used, with particular consideration of industry studies, the Group's experience and management's liability adequacy testing procedures.
- → Assessed the consistency of the life actuarial methods used across the Group's business units.
- → Challenged the Group's methodology and assumptions, focusing on changes to life actuarial methodology and assumptions during the year, by applying our industry knowledge and experience to compare whether the methodologies are in compliance with recognized actuarial practices as well as regulatory and reporting requirements.

Based on the work performed we determined the methodologies and assumptions used in the valuation of actuarially determined life insurance assets and liabilities are reasonable and in line with financial reporting requirements and industry accepted practice.

### Valuation of General Insurance reserves Key audit matter

The valuation of general insurance loss reserves involves a high degree of subjectivity and complexity. Reserves for losses and loss adjustment expenses represent estimates of future payments of reported and unreported claims for losses and related expenses at a given date. The Group uses a range of actuarial methodologies to estimate these provisions. General insurance loss reserves require significant judgment relating to factors and assumptions such as inflation, claims development patterns and regulatory changes.

Specifically, long-tail lines of business, which often have low frequency, high severity claims settlements, are generally more difficult to project and subject to greater uncertainties than short-tail, high frequency claims. Further, not all catastrophic events can be modeled using actuarial methodologies, which increases the degree of judgment needed in estimating general insurance loss reserves.

Refer to Notes 4 and 8 to the consolidated financial statements.

### How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls over actuarial methodology, integrity of data used in the actuarial valuation, and the assumptions setting and governance processes used by management related to the valuation of general insurance reserves.

In relation to the particular matters set out above, our substantive testing procedures included the following:

- → Tested the completeness and accuracy of underlying claims data utilized by the Group's actuaries in estimating general insurance loss reserves.
- → Utilized information technology audit techniques to analyze claims through claims data plausibility checks and recalculation of claims development patterns.
- → Involved our actuarial specialists to independently test management's general insurance loss reserve studies and evaluate the reasonableness of the methodology and assumptions used against recognized actuarial practices and industry standards.
- → Performed independent re-projections on selected product lines, particularly focusing on the largest and most uncertain general insurance reserves. For these product lines our actuarial specialists compared their re-projected reserves to those recorded by the Group, and sought to understand any significant differences.
- → Performed sensitivity testing and evaluated the appropriateness of any significant adjustments made to management's general insurance reserve estimates.

Based on the work performed we determined the methodology and assumptions used in the valuation of general insurance reserves are reasonable and in line with financial reporting requirements and industry accepted practice.

## Report of the statutory auditor (continued)

### Recoverability of goodwill, distribution agreements and attorney-in-fact contracts Key audit matter

As detailed in Notes 4 and 14 of the consolidated financial statements, the Group's goodwill is allocated to cash generating units (CGUs) that are identified generally at a segment level. The valuation and recoverability of significant goodwill, distribution agreements and attorney-in-fact contracts involves complex judgments and estimates, including projections of future income, terminal growth rate assumptions, and discount rates. These assumptions and estimates can have a material impact on the valuations and impairment decisions reflected in the consolidated financial statements of the Group.

Refer to Notes 3, 4 and 14 to the consolidated financial statements.

### How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls over projections of future income, terminal growth rate assumptions, and discount rates related to the recoverability of goodwill, distribution agreements and attorney-in-fact contracts.

In relation to the particular matters set out above, our substantive testing procedures included the following:

- → Corroborated the justification of the CGUs defined by management for goodwill allocation.
- → Tested the principles and integrity of the Group's discounted cash flow model that supports the value-in-use calculations in order to assess the appropriateness of the methodology applied in the Group's annual impairment assessment.
- → Tested the reasonableness of the methodology and assumptions used including projections on future income (including forecast to actual results), terminal growth rate assumptions, discount rates and sensitivity analyses to determine the impact of those assumptions.
- → Engaged our internal valuation experts to assist in the testing of key assumptions and inputs.

We determined that the assumptions used in the valuation of the significant goodwill, distribution agreements and attorney-in-fact contracts were reasonable.

### Other information in the annual report

The Board of Directors is responsible for the other information in the annual report. The other information comprises all information included in the annual report, but does not include the consolidated financial statements, the standalone financial statements of Zurich Insurance Company Ltd, the risk review on pages 3 to 25, and our auditor's reports thereon. Our opinion on the consolidated financial statements does not cover the other information in the annual report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information in the annual report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### Responsibilities of the Board of Directors for the consolidated financial statements

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS and the provision of Swiss law, and for such internal control as the Board of Directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

#### Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of the consolidated financial statements is located at the website of EXPERTsuisse: http://expertsuisse.ch/en/audit-report-for-public-companies. This description forms part of our auditor's report.

### Report on other legal and regulatory requirements

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

PricewaterhouseCoopers AG

Mark Humphreys Audit expert Auditor in charge Stephen O'Hearn Global relationship partner

Zurich, March 1, 2017

## Financial statements – statutory accounts

## Board of Directors and auditors, as of December 31, 2016

**Board of Directors** and auditors

		Expiration of current
	Residence	term of office
Board of Directors		
Tom de Swaan, Chairman	Amsterdam, Netherlands	2017
Fred Kindle, Vice Chairman	Vaduz, Liechtenstein	2017
Susan Bies	Landrum, SC, USA	2017
Alison Carnwath	Devon, United Kingdom	2017
Monica Mächler	Pfäffikon, SZ, Switzerland	2017
Christoph Franz	Zürich, Switzerland	2017
Joan Amble	Darien, CT, USA	2017
Kishore Mahbubani	Singapore, Singapore	2017
David Nish	Kilmacolm, United Kingdom	2017
Jeffrey Hayman	Moorestown, NJ, USA	2017
Adrian Peyer, Corporate Secretary		

#### **Auditors**

PricewaterhouseCoopers AG

Fritz Gerber is the Honorary Chairman of Zurich Insurance Company Ltd. He was chairman of Zurich Insurance Company Ltd between 1977 and 1995 and its Chief Executive Officer between 1977 and 1991. In recognition of his leadership and services to the Company, he was appointed Honorary Chairman. Such designation does not confer Board membership or any Director's duties or rights, nor does it entitle him to any Director's fees.

### **Management report**

Zurich Insurance Company Ltd (ZIC or the Company) is a public limited company domiciled in Zurich, Switzerland, and was incorporated on November 1, 1872. The Company is the principal operating insurance company of the Zurich Insurance Group (ZIG or the Group). As well as being an insurance company, it 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.

The results of ZIC include the direct general insurance 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>

ZIC reported a net income after taxes of CHF 3,135 million in 2016, a 60 percent increase compared to 2015. This increase is mainly driven by increases in the net investment result of CHF 1,177 million and net other financial income and expenses of CHF 207 million.

Total gross written premiums and policy fees decreased by CHF 253 million or 1 percent to CHF 18,964 million for the year ended December 31, 2016. In local currency, gross written premiums and policy fees decreased by 2 percent or CHF 450 million. Direct business gross written premiums and policy fees decreased by CHF 99 million to CHF 4,227 million. Assumed reinsurance gross written premiums and policy fees decreased by CHF 153 million to CHF 14,736 million following a focused re-underwriting, including the exit of the transportation business in Canada, and due to the participation change in the All Lines Quota Share reinsurance agreement with Farmers Exchanges, partially offset by a recapture of a reinsurance treaty assumed from a Group company in 2015.

The net insurance reserves, decreased by CHF 505 million compared with the year ended December 31, 2015. Main driver for the decrease are the foreign currency impact on insurance reserves held in foreign currency (mainly in GBP) and the settlement of reserves for the Tianjin port explosion, as well as favorable prior year development, partially offset by the underlying reserve growth for a Group internal reinsurance agreement in the U.S. business.

The net investment result increased by CHF 1,177 million to CHF 4,035 million, mainly due to lower write-downs of CHF 330 million, higher dividend income of CHF 249 million and higher net realized capital gains/losses of CHF 182 million on investments in subsidiaries and associates mainly due to realized gains on the sale of the Company's South Africa and Morocco units in 2016. Equity securities and debt securities increased by CHF 176 million and CHF 92 million, respectively, mainly due to the increase in value of single investor funds and due to the overall improvement in the equity markets.

Shareholder's equity increased by CHF 1,735 million to CHF 22,572 million for the year ended December 31, 2016, from CHF 20,837 million for the year ended December 31, 2015. The increase reflects the net result of the net income after taxes of CHF 3,135 million and the dividend payment to ZIG of CHF 1,400 million in 2016, which was approved at the Annual General Meeting of shareholders on March 31, 2016.

ZIC is fully integrated into the Group-wide risk assessment process of the Zurich Insurance Group. This risk process also addresses the nature and scope of business activities and the specific risks of ZIC. For more information, see the Risk review on page 3 to 25 of this Annual Report.

On December 11, 2016, the Company entered into a scheme implementation agreement with Cover-More Group Limited (Cover-More) to acquire Cover-More, an ASX listed provider of travel insurance and assistance solutions via scheme of arrangement (Scheme). Under the transaction, the Company or a fully owned subsidiary of the Company will acquire 100 percent of the issued share capital of Cover-More for AUD 1.95 cash per share, with the consideration valuing Cover-More's fully diluted equity at approximately CHF 544 million. The final cash consideration payable to Cover-More shareholders under the Scheme will be reduced by the amount of any interim dividend or special dividend which is announced, declared or paid by Cover-More prior to June 30, 2017. The implementation of the Scheme is subject to customary conditions including shareholder and court approvals, and is expected to be completed in the first half of 2017.

In 2017, the economic outlook is expected to improve, though clearly there remain challenges. By creating a simpler and more efficient structure as announced in the Group's strategy in November 2016, the Company will be able to get closer to the customers and to make its business more efficient.

<sup>&</sup>lt;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.

### **Income statements**

## Income statements

in CHF millions, for the years ended December 31 Notes	2016	2015
Gross written premiums and policy fees	18,964	19,216
Premiums ceded to reinsurers	(2,928)	(2,765)
Net written premiums and policy fees	16,036	16,451
Change in reserves for unearned premiums, gross	161	61
Change in reserves for unearned premiums, ceded	37	53
Net earned premiums and policy fees	16,233	16,565
Other income	1,410	1,839
Total technical income	17,643	18,405
Claims paid, annuities and loss adjustment expenses, gross	(12,668)	(13,447)
Claims paid, annuities and loss adjustment expenses, ceded	1,538	1,682
Change in insurance reserves, gross	107	(64)
Change in insurance reserves, ceded 14	(234)	(175)
Insurance benefits and losses, net of reinsurance	(11,257)	(12,003)
Underwriting & policy acquisition costs, gross	(4,611)	(4,714)
Underwriting & policy acquisition costs, ceded	415	309
Underwriting & policy acquisition costs, net of reinsurance	(4,197)	(4,405)
Administrative and other expense 4	(2,520)	(2,209)
Total technical expense	(17,973)	(18,617)
Investment income 5	4,658	4,273
Investment expenses 6	(623)	(1,416)
Net investment result	4,035	2,857
Other financial income	628	2,903
Other financial expense	(349)	(2,832)
Operating result	3,983	2,716
Interest expense on debt and other interest expense	(724)	(659)
Net income before taxes	3,259	2,057
Direct tax expenses	(124)	(96)
Net income after taxes	3,135	1,962

The notes to the financial statements are an integral part of these financial statements.

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## **Balance sheets**

in CHF millions, as of December 31 Notes	2016	2015
Investments		
Real estate	1,350	1,333
Investments in subsidiaries and associates 7	29,854	29,167
Debt securities	23,600	23,320
Other loans	4,802	3,783
Mortgage loans	1,248	1,271
Equity securities	4,355	4,358
Other investments 8	8,422	8,559
Total investments	73,632	71,792
Other assets		
Derivative assets	505	461
Deposits made under assumed reinsurance contracts	3,472	3,548
Cash and cash equivalents	4,323	4,313
Insurance reserves, ceded 13	5,217	5,420
Fixed assets 9	121	134
Deferred acquisition costs, net	1,247	1,215
Intangible assets 11	219	247
Receivables from insurance and reinsurance business 12	1,831	1,331
Other receivables	758	913
Other assets	23	21
Accrued assets	602	555
Total other assets	18,318	18,159
Total assets	91,949	89,950

The notes to the financial statements are an integral part of these financial statements.

Liabilities and shareholder's equity

in CHF millions, as of December 31	Notes	2016	2015
Liabilities			
Insurance reserves, gross	13	41,782	42,491
Provisions	16	890	751
Senior and other debt	17	11,771	13,443
Derivative liabilities		220	155
Deposits received under ceded reinsurance contracts		94	434
Liabilities from insurance and reinsurance business	18	1,026	624
Other liabilities		1,148	1,250
Accrued liabilities		1,512	1,383
Subordinated debt	17	10,934	8,583
Total liabilities		69,378	69,114
Shareholder's equity (before appropriation of available earnings)			
Share capital	19	825	825
Profit sharing certificates		p.m. <sup>1</sup>	p.m. <sup>1</sup>
Capital contribution reserve		5,570	5,570
Legal reserve		485	485
General free reserve		4,272	4,272
Retained earnings:			
Beginning of year		9,685	10,223
Dividend paid		(1,400)	(2,500)
Net income after taxes		3,135	1,962
Retained earnings, end of year		11,420	9,685
Total shareholder's equity			
(before appropriation of available earnings)		22,572	20,837
Total liabilities and shareholder's equity		91,949	89,950

<sup>&</sup>lt;sup>1</sup> pro memoria

The notes to the financial statements are an integral part of these financial statements.

#### Notes to the financial statements

#### 1. Basis of presentation

The Company's financial statements are presented in accordance with the Swiss Code of Obligations and relevant insurance supervisory law, especially the FINMA Insurance Supervision Ordinance (ISO-FINMA), revised December 15, 2015.

All amounts in the financial statements, unless otherwise stated, are shown in CHF, rounded to the nearest million with the consequence that the rounded amounts may not add up to the total in all cases. All variances are calculated using the actual figures rather than the rounded amounts.

### 2. Summary of significant accounting policies

#### Investments

**Real estate** held for investment and for own use held in Switzerland is carried at the acquisition cost less required or permissible impairment, and is valued on a single valuation basis. Real estate held for investment and for own use held by branches located outside Switzerland is carried at the local statutory value valid in the country where the real estate is located, valued on a single valuation basis.

**Investments in subsidiaries and associates** are held at acquisition cost less necessary impairments. The method to determine the necessary impairments is considering the similarity of the underlying investments in subsidiaries and associates such as the fungibility of capital or the pooling of reinsurance as well as the potential dependency with other investments in subsidiaries and associates. Investments in subsidiaries and associates in both General Insurance and Global Life are assessed on a regional basis (Asia Pacific, Europe Middle East and Africa, North America and Latin America), further Farmers, Group Functions and Operations and Non-Core Business are considered as similar assets. For these regional sub-groups, the book value of the sub-group is compared to its market value. If needed, the carrying value of the investments in subsidiaries and associates is impaired accordingly.

**Debt securities** are carried at amortized cost using the effective interest rate method. The valuation of debt securities held in the single investor funds in Switzerland is the same as for directly held securities.

**Mortgage and other loans** are valued at their nominal value less any necessary impairments.

**Equity securities** which are quoted on a stock exchange are carried at the stock exchange price as of December 31. Unquoted equity securities are carried at the acquisition cost with a deduction for necessary impairments. The valuation of equity securities held in single investor funds in Switzerland is the same as for directly held securities.

**Other investments** consists of asset backed securities, which are valued at amortized cost using the effective interest rate method.

### Other assets

#### **Derivative financial instruments**

Derivative financial instruments held for purposes of economic hedging are carried at fair value.

#### Deposits made under assumed reinsurance contracts

Reinsurance deposits consist of funds deposited with ceding insurers to guarantee contractual liabilities for assumed reinsurance.

### Deferred acquisition costs, net

Acquisition costs related to reinsurance business are deferred. For general insurance business the deferred costs are subsequently amortized over the period in which the related assumed premiums are earned. For the life business the deferred costs are amortized over the life of the contract based on expected premiums or the estimated gross margin expected to be realized over the life of the contract, depending on the type of underlying contracts.

#### **Accrued assets**

This amount relates primarily to interest income accruals, other prepaid expenses and other accrued income. Accrued investment income within the single investor funds in Switzerland is recorded as a write-up on investments.

#### Insurance reserves

**Reserves for unearned premiums** represent the portion of the premiums written relating to the unexpired term of insurance coverage as of the balance sheet date. In many insurance contracts, the insurance period for which the insurance company assumes a risk against a premium paid does not correspond to the Company's financial year. Thus, an amount equivalent to the unearned portion of the premium is set up as a reserve at the end of the financial year.

**Reserves for losses and loss adjustment expenses** represent reserves for reported claims and reserves for losses incurred but not yet reported (IBNR). In addition, equalization reserves are included where these are accepted or required by the regulator in the country where such reserves are held. The reserves represent estimates of future payments of reported and unreported claims for losses and related expenses with respect to insured events that have occurred. Reserving is a complex process dealing with uncertainty, requiring the use of informed estimates and judgments. Any changes in estimates are reflected in the income statements in the period in which estimates are changed.

**Future life policyholders' benefits** represent the estimated future benefit liability for life insurance policies and include the value of accumulated declared bonuses or dividends that have vested to policyholders. These liabilities relate to assumed reinsurance contracts. The liabilities are primarily measured using current financial and non-financial assumptions. Certain pension and annuity liabilities are calculated using a net level premium valuation method based on actuarial assumptions including mortality, expenses and investment return adjusted for a margin for adverse deviations.

#### Other income and administrative and other expense

Other income includes interest income on deposits received under ceded reinsurance contracts as well as other technical and other non-technical income. Administrative and other expense represent primarily technical expense in connection with the operation of the insurance business.

#### Investment income and expense

**Realized capital gains/losses on investments** occur when the sales price or redemption value is higher or lower than the carrying value at the time of sale. The gain/loss is the difference between carrying value and the sales price.

Write-downs and write-ups on investments include losses arising from a decrease in the fair value below cost or the carrying value at the previous year end on equity securities and necessary impairments of debt securities and investments in subsidiaries and associates. Write-ups of quoted equity securities are gains resulting from the difference between the lower book value at the beginning of the year or at the later purchase date and the higher book value as of the end of December. Write-ups also include gains as a result of the reversal of impairments on unquoted equity securities up to the acquisition cost value. Write-downs and write-ups further include the change in valuation of the single investor funds, which also include the investment income of the investments within these funds.

#### Other financial income and expense

Other financial income includes interest income on cash and cash equivalent as well as gains on derivatives. Other financial expenses includes losses on derivatives.

#### Direct tax expenses

Direct tax expenses include both Swiss and foreign income tax expense and capital tax expense in Switzerland as well as foreign withholding tax expense on investment income.

#### 3. Exchange rates

The presentation currency for ZIC and its branches is the Swiss franc. Several ZIC branches operate outside Switzerland with different functional currencies. A functional currency is the currency of the primary economic environment in which the branch operates. Assets and liabilities of those branches with functional currencies other than the Swiss franc are translated into the presentation currency at end-of-period exchange rates, except for investments in subsidiaries and associates where historical exchange rates are used. Revenues and expenses are translated using the average exchange rate of the year. The resulting exchange differences are recorded in the income statements.

The table below summarizes the principal exchange rates that have been used for translation purposes.

Principal	
exchange	rates

CHF per foreign currency unit		Balance sheets Inco		
	12/31/2016	12/31/2015	2016	2015
Canadian dollar	0.76	0.72	0.74	0.75
Euro	1.07	1.09	1.09	1.07
British pound	1.25	1.48	1.33	1.47
U.S. dollar	1.02	1.00	0.98	0.96

## 4. Administrative and other expense

## Administrative and other expense

in CHF millions, for the years ended December 31	2016	2015
Administration and other general expenses	(1,149)	(1,280)
Personnel expenses	(1,040)	(1,112)
Foreign currency transaction gains and losses	170	707
Gains and losses on foreign currency derivatives	(393)	(327)
Amortization and impairments of software and equipment	(108)	(197)
Total administrative and other expense	(2 520)	(2 209)

#### 5. Investment income

## Investment income

in CHF millions, for the years ended December 31		Current				Realized		
		income		Write-ups	ca	pital gains		Totals
	2016	2015	2016	2015	2016	2015	2016	2015
Real estate	99	104	4	_	2	14	105	118
Investments in subsidiaries and associates	2,728	2,479	_	-	379	200	3,106	2,679
Debt securities	344	320	66	8	152	334	562	662
Other loans	95	83	-	_	19	28	115	112
Mortgage loans	25	28	_	_	-	_	25	28
Equity securities	89	60	246	92	124	241	460	393
Other investments	220	209	_	_	65	73	285	282
Total investment income	3,599	3,282	317	100	741	891	4,658	4,273

Total investment income increased by CHF 385 million or 9 percent to CHF 4,658 million in 2016. Dividend income from subsidiaries and associates increased by CHF 249 million or 10 percent to CHF 2,728 million in 2016, mainly due to the dividend from Zurich Life Insurance Company Ltd of CHF 785 million and to higher dividend income from Farmers Group, Inc., partially offset by lower dividend income from Zurich Reinsurance Company Ltd and Zurich Holding Ireland Limited. The increase in realized capital gains on subsidiaries and associates of CHF 178 million to CHF 379 million in 2016 is mainly due to closing of the sale of the Company's insurance business in Morocco to Allianz Group in November 2016 and in South Africa to Fairfax Financial Holdings Limited in December 2016. In 2015, CHF 200 million realized capital gains on subsidiaries and associates resulted from the contribution of CMSH Limited to Zurich Finance Company AG, a subsidiary of the Company. The higher write-ups on debt securities and equity securities are mainly driven by the increase in value of single investor funds as well as due to the overall improvement in the equity markets compared to 2015.

### 6. Investment expenses

## Investment expenses

in CHF millions, for the years ended December 31	Realized					
	W	rite-downs	c	apital losses		Totals
	2016	2015	2016	2015	2016	2015
Real estate	(17)	(92)	(1)	(36)	(17)	(128)
Investments in subsidiaries and associates	(264)	(594)	(3)	(7)	(266)	(601)
Debt securities	(6)	(171)	(42)	(70)	(49)	(241)
Other loans	_	(1)	(36)	(87)	(36)	(88)
Mortgage loans	_	_	_	_	-	_
Equity securities	(63)	(171)	(50)	(52)	(114)	(223)
Other investments	_	_	(70)	(72)	(70)	(72)
Investment general expenses	n.a.	n.a.	n.a.	n.a.	(71)	(64)
Total investment expenses	(350)	(1,028)	(202)	(324)	(623)	(1,416)

Total investment expenses decreased by CHF 793 million or 56 percent to CHF 623 million in 2016, mainly as a result of lower write-downs on investments in subsidiaries and associates and debt securities. The write-downs on investments in subsidiaries and associates decreased by CHF 330 million from CHF 594 million in 2015 to CHF 264 million in 2016. In 2016, there was an impairment of a subsidiary in Bermuda based on an expected distribution in kind in 2017, as well as the impairment of Zurich Minas Brasil Seguros S.A., whereas in 2015, a subsidiary in the United Kingdom was impaired following a dividend payment of excess capital, as well as an impairment of a subsidiary in Italy was required due to a merger in Italy. The write-downs on debt and equity securities decreased by CHF 164 million and by CHF 107 million, respectively, both mainly due to the change in value within the single investor funds.

Realized capital losses decreased by CHF 122 million from CHF 324 million in 2015 to CHF 202 million in 2016, mainly due to decreased realized foreign currency losses on other loans.

#### 7. Investments in subsidiaries and associates

The table below shows the significant subsidiaries of ZIC with a carrying value of at least CHF 500 million and/or net income exceeding CHF 100 million. The carrying value of the listed subsidiaries and associates represents 88 percent of the total investments in subsidiaries and associates of CHF 29,854 million.

Nominal value

### **Significant** subsidiaries

as of December 31, 2016				No	minal value
					of common
					stock
		Voting	Ownership	(in lo	cal currency
	Registered office	rights %	interest %		millions)
Brazil					
Zurich Minas Brasil Seguros S.A. <sup>1</sup>	Belo Horizonte	100	100	BRL	3,109.6
Germany					
Zürich Beteiligungs-Aktiengesellschaft					
(Deutschland)	Frankfurt	100	100	EUR	152.9
Ireland					
Zurich Holding Ireland Limited	Dublin	100	100	EUR	0.1
Zurich Insurance plc <sup>1</sup>	Dublin	4.5	4.5	EUR	8.2
Italy					
Zurich Investments Life S.p.A.	Milan	100	100	EUR	164.0
Switzerland					
Zurich Life Insurance Company Ltd <sup>1</sup>	Zurich	100	100	CHF	60.0
Zurich Finance Company AG	Zurich	100	100	CHF	0.2
Zurich Reinsurance Company Ltd <sup>1,2</sup>	Zurich	100	100	CHF	11.7
United Kingdom					
Allied Zurich Holdings Limited	St. Hélier	100	100	GBP	90.7
Zurich International Life Limited <sup>1</sup>	Douglas, Isle of Man	100	100	GBP	123.4
United States of America					
Farmers Group, Inc. <sup>3,4</sup>	Reno, NV	87.9	95.4	USD	0.0
Zurich Holding Company of America, Inc.	Wilmington, DE	99.2	99.2	USD	0.0

as of December 31, 2016

<sup>1</sup> Regulated insurance companies.
2 Compared to prior year, Zurich Reinsurance Company Ltd is new to the list of significant subsidiaries. Zurich Reinsurance Company Ltd has re-domiciled from Bermuda effective December 15, 2016 (formerly Zurich International (Bermuda) Ltd.).
3 The ownership percentages in Farmers Group, Inc. and its fully owned subsidiaries have been calculated based on the participation rights of ZIC in a situation of liquidation,

dissolution or winding up of Farmers Group, Inc.

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.

The table below shows the most significant indirectly held subsidiaries of ZIC with a net asset value exceeding USD 1,000 million (based on IFRS values) and ownership interest of more than 10%.

# Significant indirect subsidiaries

as of December 31, 2016			Voting	Ownership
	Registered office	Parent company	rights %	interest %
Germany				
		Zürich Beteiligungs-		
Zurich Deutscher Herold		Aktiengesellschaft		
Lebensversicherung Aktiengesellschaft	Bonn	(Deutschland) <sup>1</sup>	32.5	32.5
		Deutscher Herold		
		Aktiengesellschaft	67.5	67.5
Spain				
		Zurich Vida, Compañía de		
Bansabadell Vida S.A. de Seguros		Seguros y Reaseguros, S.A. –		
y Reaseguros	Barcelona	Sociedad Unipersonal	50.0	50.0
		Zurich Santander Insurance		
Zurich Santander Holding (Spain), S.L.	Madrid	America, S.L.	51.0	51.0
Zurich Latin America Holding S.L. –		Zurich Life Insurance		
Sociedad Unipersonal	Barcelona	Company Ltd <sup>1</sup>	100.0	100.0
United Kingdom				
Zurich Assurance Ltd	Cheltenham, England	Eagle Star Holdings Limited	100.0	100.0
United States of America				
Farmers New World Life Insurance Company	Mercer Island, WA	Farmers Group, Inc.1	100.0	100.0
		Zurich Holding Company		
Zurich American Corporation	Wilmington, DE	of America, Inc. <sup>1</sup>	100.0	100.0
	-	Zurich Holding Company		
Zurich American Insurance Company	New York, NY	of America, Inc. <sup>1</sup>	100.0	100.0

<sup>&</sup>lt;sup>1</sup> Direct subsidiary of the Company.

#### 8. Other investments

Other investments	in CHF millions, as of December 31	2016	2015
	Asset backed securities	8,422	8,559
	Total other investments	8,422	8,559

### 9. Fixed assets

Fixed assets	in CHF millions, as of December 31	2016	2015
	Furniture and equipment	361	372
	Accumulated amortization	(240)	(238)
	Total fixed assets	121	134

## 10. Deferred acquisition costs

Deferred acquisition costs, net	in CHF millions, as of December 31	2016	2015
	Deferred acquisition costs, assumed reinsurance	1,301	1,272
	Deferred acquisition costs, retroceded reinsurance	(54)	(57)
	Total deferred acquisition costs, net	1,247	1,215

Acquisition costs related to reinsurance business are deferred and subsequently amortized over a defined period.

## 11. Intangible assets

	Total intangible assets	219	247
	Software	219	247
Intangible assets	in CHF millions, as of December 31	2016	2015

The net additions as well as the impairment and amortization of software amounted to CHF 28 million and CHF 69 million in 2016 and 2015, respectively.

### 12. Receivables from insurance and reinsurance business

Receivables from insurance and reinsurance business	in CHF millions, as of December 31	2016	2015
	Receivables from policyholders	91	40
	Receivables from agents and intermediaries	173	164
	Receivables from insurance and reinsurance companies	1,567	1,127
	Total receivables from insurance and reinsurance business	1,831	1,331

#### 13. Insurance reserves, net

Insurance reserves, net

in CHF millions, as of December 31	2016	2015
Gross		
Reserves for unearned premiums	4,645	4,891
Reserves for losses and loss adjustment expenses	31,953	32,398
Other technical reserves	806	786
Future life policyholders' benefits	4,375	4,408
Reserves for policyholders' dividends	4	7
Total insurance reserves, gross	41,782	42,491
Ceded		
Reserves for unearned premiums	(1,049)	(1,017)
Reserves for losses and loss adjustment expenses	(3,912)	(4,147)
Future life policyholders' benefits	(257)	(255)
Reserves for policyholders' dividends	_	_
Total insurance reserves, ceded	(5,217)	(5,420)
Net		
Reserves for unearned premiums	3,596	3,874
Reserves for losses and loss adjustment expenses	28,042	28,251
Other technical reserves	806	786
Future life policyholders' benefits	4,118	4,153
Reserves for policyholders' dividends	3	7
Total insurance reserves, net of reinsurance	36,566	37,071

Total net insurance reserves decreased by CHF 505 million or 1 percent to CHF 36,566 million. In local currency, the insurance reserves decreased by CHF 182 million. The net reserves for losses and loss adjustment expenses decreased by CHF 209 million mainly due to the settlement of several large claims of the financial year 2015, especially the Tianjin port explosion and flooding in the United Kingdom and Ireland in December 2015, and to the severe deterioration of the British pound, partially offset by the reserve strengthening for a Group internal quota share treaty related to the U.S. business.

In the United Kingdom, the Government mandates the discount rates to be applied to personal injury claims. Payment to claimants is either via lump sum amount or periodic payment option. The lump sum amount is calculated using Ogden tables defined by the Lord Chancellor of the UK Ministry of Justice. A critical component of the Ogden tables is the discount rate, currently 2.5 percent, which has been in effect since 2001 when the Ogden rate was last changed. The Ministry of Justice announced its intention to review the discount rate in December 2016. On February 27, 2017, the UK Ministry of Justice announced the outcome of its review of the Ogden discount rate. The discount rate was changed from 2.5 percent to minus 0.75 percent. The Company was reserved at an assumed discount rate of 1 percent. The impact of the change in rate to minus 0.75 percent was an increase in reserves for losses and loss adjustment expenses, gross, of CHF 181 million. The Company has reflected the full impact within its financial statements 2016.

## 14. Change in insurance reserves, net

Change	in	insu	ran	C
reserves	. r	net		

in CHF millions, for the years ended December 31	2016	2015
Gross		
Change in reserves for losses and loss adjustment expenses	191	(983)
Change in other technical reserves	25	(6)
Change in reserves for future life policyholders' benefits	(29)	1,057
Change in reserves for policyholders' dividends	(80)	(133)
Total change in insurance reserves, gross	107	(64)
Ceded		
Change in reserves for losses and loss adjustment expenses	(231)	(164)
Change in reserves for future life policyholders' benefits	(2)	(10)
Change in reserves for policyholders' dividends	_	_
Total change in insurance reserves, ceded	(234)	(175)
Net		
Change in reserves for losses and loss adjustment expenses	(40)	(1,147)
Change in other technical reserves	25	(6)
Change in reserves for future life policyholders' benefits	(32)	1,047
Change in reserves for policyholders' dividends	(79)	(133)
Total change in insurance reserves, net of reinsurance	(127)	(238)

## 15. Direct and assumed business

## Direct and assumed business

2016	2015
4,227	4,327
14,736	14,890
(2,928)	(2,765)
16,036	16,451
32	10
129	51
37	53
198	114
(2,773)	(2,905)
(9,895)	(10,542)
1,538	1,682
(11,130)	(11,764)
363	81
(257)	(145)
(234)	(175)
(127)	(238)
(882)	(834)
(3,730)	(3,880)
415	309
(4,197)	(4,405)
	4,227 14,736 (2,928) 16,036 32 129 37 198 (2,773) (9,895) 1,538 (11,130) 363 (257) (234) (127) (882) (3,730) 415

The provisions were established in anticipation of expected, estimated or perceived expenditures or exposures, and this line item consists mainly of provisions to cover obligations relating to administrative and sales staff. In 2016, the provision for restructuring costs increased by CHF 11 million and amounted to CHF 56 million.

#### 17. Debt

a) Senior and other debt

## Senior and other debt

in CHF millions, as of December 31		2016	2015
Issuances to capital markets under			
Euro Medium Term Note Programme	Floating rate CHF 200 million, due June 2016	_	200
	2.25% CHF 500 million, due July 2017	500	500
	2.375% CHF 525 million, due November 2018	525	525
	1.5% CHF 400 million, due June 2019	400	400
	1.125% CHF 400 million, due September 2019	400	400
	0.625% CHF 250 million, due July 2020	250	250
	2.875% CHF 250 million, due July 2021	250	250
	3.375% EUR 500 million, due June 2022	536	544
	1.875% CHF 100 million, due September 2023	100	100
	1.75% EUR 500 million, due September 2024	536	544
	1.5% CHF 150 million, due July 2026	150	150
Zurich Insurance Group	various	8,093	9,511
Other debt	various	31	70
Total senior and other debt		11,771	13,443
	thereof due in one to five years	1,825	2,275
	thereof due in more than five years	1,322	1,587

## b) Subordinated debt

## Subordinated debt

in CHF millions, as of December 31		2016	2015
Zurich Insurance Group Ltd	6.30% CHF 4,832 million perpetual loan	4,832	4,832
Issuances to capital markets under	4.25% CHF 700 million perpetual notes,		
Euro Medium Term Note Programme	first callable on May 26, 2016	_	700
	8.25% USD 500 million perpetual capital notes,		
	first callable on January 18, 2018	508	501
	4.625% CHF 500 million perpetual notes,		
	first callable on May 16, 2018	500	500
	7.5% EUR 425 million notes, first callable on		
	July 24, 2019, due July 2039	456	462
	2.75% CHF 225 million perpetual capital notes,		
	callable on June 2, 2021	225	-
	2.75% CHF 200 million perpetual capital notes,		
	first callable on September 30, 2021	200	200
	4.75% USD 1 billion perpetual notes,		
	callable on January 20, 2022	1,016	
	4.25% EUR 1 billion notes, first callable on		
	October 2, 2023, due October 2043	1,072	1,087
	4.25% USD 300 million subordinated notes,		
	first callable on October 1, 2025	305	300
	5.625% USD 1 billion subordinated notes,		
	callable on June 24, 2026, due June 2046,	1,016	
	3.5% EUR 750 million subordinated notes,		
	first callable on October 1, 2026, due October 2046	804	
Total subordinated debt		10,934	8,583
	thereof due in one to five years	1,889	1,001
	thereof due in more than five years	9,045	6,882

#### 18. Liabilities from insurance and reinsurance business

Liabilities from insurance and reinsurance business

in CHF millions, as of December 31	2016	2015
Amounts due to policyholders	73	75
Amounts due to agents and intermediaries	14	2
Amounts due to insurance and reinsurance companies	939	547
Total liabilities from insurance and reinsurance business	1,026	624

### 19. Share capital

Share capital and profit sharing certificates

number of shares, as of December 31	2016	2015
Contingent and issued share capital, CHF 10 par value	86,000,000	86,000,000
Issued share capital, CHF 10 par value	82,500,000	82,500,000
Profit sharing certificates (Genussscheine) <sup>1</sup>	2	2

<sup>&</sup>lt;sup>1</sup> These profit sharing certificates confer on their holder the right to receive a dividend if and to the extent the Annual General Meeting of shareholders decides. However, they do not confer on their holder any voting rights or rights associated thereto, any rights to subscribe for new shares, or any rights to liquidations proceeds.

### a) Issued share capital

As of December 31, 2016 and 2015, ZIC had issued share capital of CHF 825,000,000, consisting of 82,500,000 issued and fully paid registered shares of CHF 10 par value each.

#### b) Contingent share capital

At the Annual General Meeting of Shareholders on June 11, 1997, contingent share capital of CHF 35,000,000 or 3,500,000 shares with a par value of CHF 10 each, was created, of which 2,500,000 shares can be issued in connection with the granting of conversion and/or option rights, and 1,000,000 shares can be issued under employees' share ownership plans. None of the contingent shares have been issued as of December 31, 2016.

### c) Profit sharing certificates

As of December 31, 2016 and 2015, ZIC had issued two profit sharing certificates with no par value.

### d) Shareholders

As of December 31, 2016 and 2015, 100 percent of the registered shares of the Company were owned by Zurich Insurance Group Ltd.

## Shareholder's equity

in CHF millions, as of December 31	2016	2015	changes
Shareholder's equity			
Share capital	825	825	_
Profit sharing certificates	p.m. <sup>1</sup>	p.m. <sup>1</sup>	
Capital contribution reserve	5,570	5,570	_
Legal reserve	485	485	_
General free reserve	4,272	4,272	_
Retained earnings:			
Beginning of year	9,685	10,223	(538)
Dividend paid	(1,400)	(2,500)	1,100
Net income after taxes	3,135	1,962	1,173
Retained earnings, end of year	11,420	9,685	1,735
Total shareholder's equity	22,572	20,837	1,735

<sup>&</sup>lt;sup>1</sup> pro memoria.

## ${\bf 20.\,Assets\,and\,liabilities\,relating\,to\,companies\,within\,the\,Zurich\,Insurance\,Group}$

Assets and liabilities relating to direct and indirect subsidiaries

in CHF millions, as of December 31	2016	2015
Assets		
Investments in subsidiaries and associates	29,854	29,167
Debt securities	13	13
Other loans	3,746	3,684
Derivative assets	182	156
Deposits made under assumed reinsurance contracts	1,895	1,985
Cash and cash equivalents	1,193	905
Insurance reserves, ceded	1,518	1,402
Deferred acquisition costs, net	1,076	1,069
Receivables from insurance and reinsurance business	847	642
Other receivables	439	491
Accrued assets	273	180
Total assets	41,036	39,694
Liabilities		
Insurance reserves, gross	29,061	29,508
Provisions	180	135
Senior and other debt	7,756	7,861
Derivative liabilities	83	39
Deposits received under ceded reinsurance contracts	6	9
Liabilities from insurance and reinsurance business	717	368
Other liabilities	72	189
Accrued liabilities	142	120
Total liabilities	38,016	38,229

Assets and liabilities relating to ZIG Ltd

in CHF millions, as of December 31	2016	2015
Assets		
Equity securities	330	315
Derivative assets	2	_
Other receivables	_	_
Total assets	332	315
Liabilities		
Senior and other debt	337	1,645
Derivative liabilities	1	_
Accrued liabilities	207	207
Subordinated debt	4,832	4,832
Total liabilities	5,378	6,684

### 21. Supplementary information

## **Supplementary information**

in CHF millions, as of December 31		2015
Guarantees, indemnity liabilities and pledges in favor of third parties	12,802	16,932
Pledged assets in respect of securities lending agreements (at book value)	1,622	1,610
Leasing obligations not recorded on the balance sheet	324	369
Security deposits	14,146	13,810
Number of employees – Average full time equivalents	5,772	5,963
Audit fees	(14)	(14)
Other service fees	_	(1)

Guarantees, indemnity liabilities and pledges in favor of third parties include a guarantee of USD 3,000 million (CHF 3,047 million) in 2016 compared with two guarantees of each USD 3,000 million (CHF 3,003 million) in 2015, in favor of subsidiaries to provide funds under certain circumstances. The total maximum exposure under these guarantees amounted to USD 424 million (CHF 431 million) as of December 31, 2016, and USD 600 million (CHF 601 million) as of December 31, 2015.

In addition to the guarantees listed above, the Company has provided unlimited guarantees in support of various subsidiaries belonging to the Zurich Insurance Group.

According to regulatory requirements, CHF 13 billion were attributed to tied assets, as of December 31, 2016 and 2015, respectively.

To secure the insurance reserves of the assumed reinsurance business, investments with a value of CHF 14,146 million and CHF 13,810 million as of December 31, 2016 and 2015, respectively, were deposited in favor of ceding companies.

### Legal, compliance and regulatory developments

In recent years there has been an increase in the number of legislative initiatives that require information gathering and tax reporting regarding the Group's customers and their contracts, including the U.S. Foreign Account Tax Compliance Act (FATCA) and the expected introduction of other automatic tax information exchange regimes based on the Common Reporting Standard (CRS). The Group's compliance activities in this area could result in higher compliance costs, remedial actions and other related expenses for its life insurance, savings and pension business. There has also been increased scrutiny by various tax and law enforcement officials into cross-border business activities, including in particular by U.S. government authorities looking into U.S. taxpayers with investments held outside the U.S. and the non-U.S. financial institutions that hold such investments. The Group, on its own initiative, undertook an internal review of the life insurance, savings and pension business sold by its non-U.S. operating companies with relevant cross-border business to customers with a nexus to the U.S. The Group engaged outside counsel and other advisors to assist in this review, which was focused on assessing compliance with relevant U.S. tax laws. The review confirmed that the Group's cross-border business with U.S. persons was very limited and of a legacy nature, with the large majority of sales having occurred more than a decade ago. The review also confirmed that the Group's U.S. operating companies were not involved in or connected to those activities. The Group has voluntarily disclosed the results of the review and the regulatory issues presented by sales to U.S. residents to the Swiss Financial Market Supervisory Authority (FINMA), the U.S. Department of Justice (DOJ) and other authorities. The Group is cooperating with these authorities. While at this stage in the process, it is unclear whether the Group will have any liability related to these matters, the Group does not currently believe this matter will have a material adverse effect on the Group's business or the Group's consolidated financial condition.

#### 22. Net release of hidden reserves

In 2016, there was no material release of hidden reserves. In 2015, net hidden reserves of CHF 276 million were released, mainly related to the release of the provision for value fluctuations of investments.

## 23. Subsequent event

On January 17, 2017, the Company completed the sale of its general insurance operations in Taiwan to Hotai Motor Co., Ltd. The financial implications of the sale will be reflected in the Company's financial statements 2017.

## Appropriation of available earnings as proposed by the Board of Directors

number of shares, as of December 31	2016	2015
Dividend-paying registered shares		
Dividend-paying shares	82,500,000	82,500,000

in CHF, as of December 31	2016	2015
	(Proposed)	(Approved)
Appropriation of available earnings as proposed by the Board of Directors		
Balance brought forward	8,284,786,585	7,723,157,781
Net income after taxes	3,134,895,859	1,961,628,804
Available earnings	11,419,682,444	9,684,786,585
Dividend	(2,300,000,000)	(1,400,000,000)
Balance carried forward	9,119,682,444	8,284,786,585

The Board of Directors proposes to its shareholder at the Annual General Meeting on March 29, 2017, to pay a dividend of CHF 2,300,000,000 and to carry forward available earnings of CHF 9,119,682,444 as shown in the above table.

As the general reserves (consisting of the legal reserve and the capital contribution reserve) exceed 100 percent of fully paid-in share capital, no further allocation to the general reserves is required by the Swiss Code of Obligations and article 28a of the Company's articles of incorporation.

On behalf of the Board of Directors of Zurich Insurance Company Ltd

Tom de Swaan

Chairman

Zurich, March 1, 2017

## Report of the statutory auditor

## Report of the statutory auditor

To the General Meeting of Zurich Insurance Company Ltd Zurich

Report on the audit of the financial statements

#### **Opinion**

We have audited the financial statements of Zurich Insurance Company Ltd (the Company), which comprise the balance sheet as at December 31, 2016, income statement and notes for the year then ended, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements as at December 31, 2016, comply with Swiss law and the Company's articles of incorporation.

#### **Basis for opinion**

We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the financial statements" section of our report.

We are independent of the entity in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Our audit approach

## Overview

Materiality	→ Overall materiality: CHF 247 million
<b>,</b>	→ We concluded full scope audit work at the holding company and 3 business units
Audit scope	in 1 country.
	→ The full scope audit work addressed 54% and 71% of the Company's gross written
	premiums and policy fees (GWP) and total assets, respectively.
	→ In addition, specified procedures were performed on a further 8 business units in 4 countries
	representing a further 35% and 19% of the Company's GWP and total assets, respectively.
Key audit matters	As key audit matters the following areas of focus have been identified:
	→ Valuation of General Insurance reserves
	→ Valuation of life insurance reserves
	→ Valuation of investments in subsidiaries

#### Audit scope

We designed our audit by determining materiality and assessing the risks of material misstatement in the financial statements. In particular, we considered where subjective judgments were made; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the financial statements as a whole, taking into account the structure of the Company, the accounting processes and controls, and the industry in which the Company operates.

In establishing the overall approach to the audit, we determined the type of work that needed to be performed at the business units by us, as the Group engagement team, or by component auditors from PwC network firms operating under our instruction. We chose this approach due to the structure of the Company consisting of a holding company and 60 business units. The most significant component teams are located in Switzerland, the US, Canada and Bermuda. Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work at those business units to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the financial statements of the Company as a whole.

The Company's business units vary significantly in size and we identified four which, in our view, required an audit of their complete financial information, due to their size or risk characteristics. Audits of these business units were performed using materiality levels lower than the materiality level for the Company as a whole, ranging from CHF 70 million to CHF 220 million, and established by reference to the size of, and risks associated with, the business concerned. Specific audit procedures on certain balances and transactions were performed at a further eight business units. Together these accounted for 89% and 90% of Company reported GWP and total assets, respectively.

Our engagement team's involvement included various site visits and component auditor working paper reviews across significant business units, together with discussions around audit approach, any issues arising from our work, and conference calls with the component audit teams.

#### Materiality

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgment, we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of any misstatements, both individually and in aggregate on the financial statements as a whole.

#### Materiality

Overall materiality	CHF 247 million
How we determined it	We determined our materiality for the audit of the financial statements using quantitative and
	qualitative factors. Based on these factors we have selected the Company's total revenue
	(premium income and investment income) as appropriate benchmark for measuring materiality.
	We applied a 1% rule of thumb which resulted in an overall materiality of CHF 247 million.
Rationale for the materiality	We chose total revenues as a benchmark because, in our view, it is the benchmark which is the
benchmark applied	most relevant for the Company, as it is a large insurance company with stable premium and
	investment income, and is a generally accepted benchmark. Total revenues are an important KPI.
	It reflects the capability of insurer to write new business and to renew the contracts. This impacts
	the sensitivity by which adjustments to the financial statements may influence the users of the
	financial statements.

We agreed with the Audit Committee that we would report to them misstatements above CHF 12.5 million identified during our audit as well as any misstatements below that amount which, in our view, warranted reporting for qualitative reasons.

#### Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

#### Valuation of General Insurance reserves Kev audit matter

The valuation of general insurance loss reserves involves a high degree of subjectivity and complexity. Reserves for losses and loss adjustment expenses represent estimates of future payments of reported and unreported claims for losses and related expenses at a given date. The Company uses a range of actuarial methodologies to estimate these provisions. General insurance loss reserves require significant judgment relating to factors and assumptions such as inflation, claims development patterns and regulatory changes.

Specifically, long-tail lines of business, which often have low frequency, high severity claims settlements, are generally more difficult to project and subject to greater uncertainties than short-tail, high frequency claims. Further, not all catastrophic events can be modeled using actuarial methodologies, which increases the degree of judgment needed in estimating general insurance loss reserves.

## Report of the statutory auditor (continued)

#### How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls over actuarial methodology, integrity of data used in the actuarial valuation, and the assumptions setting and governance processes used by management related to the valuation of general insurance reserves.

In relation to the particular matters set out above, our substantive testing procedures included the following:

- → Tested the completeness and accuracy of underlying claims data utilized by the Company's actuaries in estimating general insurance loss reserves.
- → Utilized information technology audit techniques to analyze claims through claims data plausibility checks and recalculation of claims development patterns.
- → Involved our actuarial specialists to independently test management's general insurance loss reserve studies and evaluate the reasonableness of the methodology and assumptions used against recognized actuarial practices and industry standards.
- → Performed independent re-projections on selected product lines, particularly focusing on the largest and most uncertain general insurance reserves. For these product lines our actuarial specialists compared their re-projected reserves to those recorded by the Company, and sought to understand any significant differences.
- → Performed sensitivity testing and evaluated the appropriateness of any significant adjustments made to management's general insurance reserve estimates.

Based on the work performed we determined the methodology and assumptions used in the valuation of general insurance reserves are reasonable and in line with financial reporting requirements and industry accepted practice.

### Valuation of life insurance reserves Key audit matter

The Company acts as a reinsurance company for life business written by affiliated companies, including 100% of certain US and UK business.

The Company's valuation of the life insurance liabilities (reserves for insurance contracts) is based on complex actuarial methodologies and models and involves comprehensive assumption setting processes with regards to future events. Actuarial assumptions selected by the Company with respect to interest rates, investment returns, mortality, morbidity, longevity, persistency, expenses, stock market volatility and future policyholder behavior and the underlying methodologies and assumptions used may result in material impacts on the valuation of actuarially determined life insurance liabilities.

Specifically, the continued low interest rate environment results in reduced investment returns creating a strain on the sufficiency of reserves for traditional life insurance contracts and also influences policyholders' behaviors.

#### How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls over actuarial methodology, integrity of data used in the actuarial valuation, and the assumptions setting processes used by management related to the valuation of actuarially determined life insurance reserves.

In relation to the particular matters set out above, our substantive testing procedures included the following:

- → Tested the completeness and accuracy of underlying data to source documentation.
- → Involved our life insurance actuarial specialists to independently test management's methodology and the assumptions used, with particular consideration of industry studies, the Company's experience and management's liability adequacy testing procedures.
- → Assessed the consistency of the life actuarial methods used across the Company's business units.
- → Challenged the Company's methodology and assumptions, focusing on changes to life actuarial methodology and assumptions during the year, by applying our industry knowledge and experience to compare whether the methodologies are in compliance with recognized actuarial practices as well as regulatory and reporting requirements.

Based on the work performed we determined the methodology, methods, and assumptions used in the valuation of actuarially determined life insurance reserves are reasonable and in line with financial reporting requirements and industry accepted practice.

#### Valuation of Investments in subsidiaries Key audit matter

Investments in subsidiaries are carried at acquisition cost less necessary adjustments.

Management assesses whether there are any losses in the carrying value of the investments in subsidiaries. As a first step the Company compares the carrying value to the net asset value of the subsidiary as at December 31. If the net asset value is below the carrying value, then the Company may perform a valuation of the subsidiary by using a discounted cash flow analysis. If this valuation still indicates a need for a write-down, the Company reduces the carrying value of the investment in subsidiary accordingly.

The determination whether an investment in subsidiary needs to be impaired includes assumptions about the profitability of the underlying business and growth, which involves management's judgment.

We consider this to be a key audit matter not only due to this judgment involved but also based on the relative size of the balance.

### How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls over the valuation of investments in subsidiaries.

In relation to the particular matters set out above, our substantive testing procedures included the following:

- → Assessed the appropriateness of the Company's impairment testing methodology.
- → Re-performed management's impairment test on the carrying value of all investments in subsidiaries, and challenged the impairment decisions taken.
- → Tested the required disclosures in the notes to the financial statements.

We determined that the carrying value of investments in subsidiaries and the decisions made in connection with potential impairments thereof are reasonable and supportable.

## Responsibilities of the Board of Directors for the financial statements

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the Company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

#### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located at the website of EXPERTsuisse: http://expertsuisse.ch/en/audit-report-for-public-companies. This description forms part of our auditor's report.

## Report of the statutory auditor (continued)

### Report on other legal and regulatory requirements

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the Company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG

Mark Humphreys Audit expert Auditor in charge Peter Bieri Audit expert

Zurich, March 1, 2017

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Mythenquai 2 8002 Zurich, Switzerland Phone +41 (0) 44 625 25 25 www.zurich.com

