Swiss Re

Swiss Reinsurance Company Consolidated
Annual Report 2017

Contents

Income statement

For the years ended 31 December

USD millions	Note	2016	2017
Revenues			
Gross premiums written	4	31 667	**30 009**
Net premiums written	4	29 715	**27 863**
Change in unearned premiums		–722	**662**
Premiums earned	3	28 993	**28 525**
Fee income from policyholders	3	129	**130**
Net investment income – non-participating business[1]	7	2 728	**2 226**
Net realised investment gains/losses – non-participating business[2]	7	1 592	**981**
Net investment result – unit-linked	7	15	**81**
Other revenues		41	**50**
Total revenues		33 498	**31 993**
Expenses			
Claims and claim adjustment expenses	3	–10 299	**–13 172**
Life and health benefits	3	–9 560	**–9 209**
Return credited to policyholders		–358	**–121**
Acquisition costs	3	–6 382	**–6 291**
Operating expenses		–2 473	**–2 400**
Total expenses before interest expenses		–29 072	**–31 193**
Income before interest and income tax expense		4 426	**800**
Interest expenses		–581	**–567**
Income before income tax expense		3 845	**233**
Income tax expense	11	–648	**–119**
Net income before attribution of non-controlling interests		3 197	**114**
Income/loss attributable to non-controlling interests		–18	**–48**
Net income after attribution of non-controlling interests		3 179	**66**
Interest on contingent capital instruments, net of tax		–68	**–67**
Net income attributable to common shareholder		3 111	**–1**

[1] Total impairments for the years ended 31 December of nil in 2016 and USD 5 million in 2017, respectively, were fully recognised in earnings.
[2] Total impairments for the years ended 31 December of USD 71 million in 2016 and USD 39 million in 2017, respectively, were fully recognised in earnings.

The accompanying notes are an integral part of the Group financial statements.

Statement of comprehensive income

For the years ended 31 December

USD millions	2016	2017
Net income before attribution of non-controlling interests	3 197	**114**
Other comprehensive income, net of tax:		
Change in unrealised investment gains/losses	451	**–6**
Change in other-than-temporary impairment	5	**2**
Change in foreign currency translation	–125	**410**
Change in adjustment for pension benefits	–46	**262**
Other comprehensive income attributable to non-controlling interests	3	**17**
Total comprehensive income before attribution of non-controlling interests	3 485	**799**
Interest on contingent capital instruments	–68	**–67**
Comprehensive income/loss attributable to non-controlling interests	–21	**–65**
Total comprehensive income attributable to common shareholder	3 396	**667**

Reclassification out of accumulated other comprehensive income

For the years ended 31 December

2016 USD millions	Unrealised investment gains/losses[1]	Other-than-temporary impairment[1]	Foreign currency translation[1, 2]	Adjustment from pension benefits[3]	Accumulated other comprehensive income
Balance as of 1 January	1 619	–10	–5 137	–953	–4 481
Change during the period	1 178	5	–58	–113	1 012
Amounts reclassified out of accumulated other comprehensive income	–512	2		60	–450
Tax	–215	–2	–67	7	–277
Balance as of period end	2 070	–5	–5 262	–999	–4 196

2017 USD millions	Unrealised investment gains/losses[1]	Other-than-temporary impairment[1]	Foreign currency translation[1, 2]	Adjustment from pension benefits[3]	**Accumulated other comprehensive income**
Balance as of 1 January	2 070	–5	–5 262	–999	**–4 196**
Change during the period	1 884	3	278	299	**2 464**
Amounts reclassified out of accumulated other comprehensive income	–1 858	1	–20	28	**–1 849**
Tax	–32	–2	152	–65	**53**
Balance as of period end	**2 064**	**–3**	**–4 852**	**–737**	**–3 528**

[1] Reclassification adjustment included in net income is presented in "Net realised investment gains/losses – non-participating business".
[2] Reclassification adjustment is limited to translation gains and losses realised upon sale or upon complete or substantially complete liquidation of an investment in a foreign entity.
[3] Reclassification adjustment included in net income is presented in "Operating expenses".

The accompanying notes are an integral part of the Group financial statements.

Balance sheet

ASSETS

As of 31 December

USD millions	Note	2016	2017
Investments	7, 8, 9		
Fixed income securities:			
Available-for-sale (including 9 056 in 2016 and 11 219 in 2017 subject to securities lending and repurchase agreements) (amortised cost: 2016: 60 490; 2017: 65 694)		63 250	**68 682**
Trading (including 1 871 in 2016 and 1 761 in 2017 subject to securities lending and repurchase agreements)		2 695	**2 538**
Equity securities:			
Available-for-sale (including 19 in 2016 and 241 in 2017 subject to securities lending and repurchase agreements) (cost: 2016: 2 063; 2017: 2 993)		2 258	**3 021**
Trading		60	**3**
Policy loans, mortgages and other loans		4 618	**2 396**
Investment real estate		1 711	**2 017**
Short-term investments (including 1 798 in 2016 and 284 in 2017 subject to securities lending and repurchase agreements)		7 527	**2 674**
Other invested assets		7 217	**7 800**
Investments for unit-linked (including equity securities trading: 548 in 2016 and 585 in 2017)		548	**585**
Total investments		89 884	**89 716**
Cash and cash equivalents (including 747 in 2016 and 262 in 2017 subject to securities lending)		5 830	**3 218**
Accrued investment income		657	**630**
Premiums and other receivables		10 987	**12 749**
Reinsurance recoverable on unpaid claims and policy benefits		4 083	**13 245**
Funds held by ceding companies		8 854	**12 617**
Deferred acquisition costs	6	5 756	**6 380**
Acquired present value of future profits	6	1 543	**937**
Goodwill		3 663	**3 818**
Income taxes recoverable		125	**187**
Deferred tax assets		4 922	**3 660**
Other assets		2 307	**2 961**
Total assets		138 611	**150 118**

The accompanying notes are an integral part of the Group financial statements.

LIABILITIES AND EQUITY

USD millions	Note	2016	2017
Liabilities			
Unpaid claims and claim adjustment expenses	5	51 073	**58 221**
Liabilities for life and health policy benefits	8	17 629	**19 361**
Policyholder account balances		5 653	**5 764**
Unearned premiums		8 653	**8 487**
Funds held under reinsurance treaties		2 315	**11 429**
Reinsurance balances payable		1 774	**2 592**
Income taxes payable		452	**412**
Deferred and other non-current tax liabilities		6 631	**4 935**
Short-term debt	10	3 697	**2 826**
Accrued expenses and other liabilities		10 315	**7 783**
Long-term debt	10	7 805	**8 114**
Total liabilities		115 997	**129 924**
Equity			
Contingent capital instruments		1 102	**750**
Common shares, CHF 0.10 par value			
2016: 344 052 565; 2017: 344 052 565 shares authorised and issued		32	**32**
Additional paid-in capital		8 695	**8 690**
Shares in Swiss Re Ltd, net of tax		–19	**–17**
Accumulated other comprehensive income:			
Net unrealised investment gains/losses, net of tax		2 070	**2 064**
Other-than-temporary impairment, net of tax		–5	**–3**
Foreign currency translation, net of tax		–5 262	**–4 852**
Adjustment for pension and other post-retirement benefits, net of tax		–999	**–737**
Total accumulated other comprehensive income		–4 196	**–3 528**
Retained earnings		15 339	**12 335**
Shareholder's equity		20 953	**18 262**
Non-controlling interests		1 661	**1 932**
Total equity		22 614	**20 194**
Total liabilities and equity		138 611	**150 118**

The accompanying notes are an integral part of the Group financial statements.

Statement of shareholder's equity

For the years ended 31 December

USD millions	2016	2017
Contingent capital instruments		
Balance as of 1 January	1 102	**1 102**
Changes during the period		**–352**
Balance as of period end	1 102	**750**
Common shares		
Balance as of 1 January	32	**32**
Issue of common shares		
Balance as of period end	32	**32**
Additional paid-in capital		
Balance as of 1 January	8 730	**8 695**
Contingent capital instrument issuance costs		**8**
Share-based compensation	–55	**–9**
Realised gains/losses on treasury shares	20	**–4**
Balance as of period end	8 695	**8 690**
Shares in Swiss Re Ltd, net of tax		
Balance as of 1 January	–21	**–19**
Change of shares in Swiss Re Ltd	2	**2**
Balance as of period end	–19	**–17**
Net unrealised investment gains/losses, net of tax		
Balance as of 1 January	1 619	**2 070**
Change in group structure[1]		**–23**
Changes during the period	451	**17**
Balance as of period end	2 070	**2 064**
Other-than-temporary impairment, net of tax		
Balance as of 1 January	–10	**–5**
Changes during the period	5	**2**
Balance as of period end	–5	**–3**
Foreign currency translation, net of tax		
Balance as of 1 January	–5 137	**–5 262**
Change in group structure[1]		**12**
Changes during the period	–125	**398**
Balance as of period end	–5 262	**–4 852**
Adjustment for pension and other post-retirement benefits, net of tax		
Balance as of 1 January	–953	**–999**
Changes during the period	–46	**262**
Balance as of period end	–999	**–737**

USD millions	2016	2017
Retained earnings		
Balance as of 1 January	15 222	**15 339**
Change in group structure[1]		**–45**
Transactions under common control		**–358**
Net income after attribution of non-controlling interests	3 179	**66**
Interest on contingent capital instruments, net of tax	–68	**–67**
Dividends on common shares	–2 994	**–2 600**
Balance as of period end	15 339	**12 335**
Shareholder's equity	20 953	**18 262**
Non-controlling interests		
Balance as of 1 January	23	**1 661**
Changes during the period	866	
Transactions with non-controlling interests	751	**206**
Income attributable to non-controlling interests	18	**48**
Other comprehensive income	3	**17**
Balance as of period end	1 661	**1 932**
Total equity	22 614	**20 194**

[1] In January 2017, the Group sold three primary life and health insurance carriers to Swiss Re Life Capital Group.

The accompanying notes are an integral part of the Group financial statements.

Statement of cash flows

For the years ended 31 December

USD millions	2016	2017
Cash flows from operating activities		
Net income/loss attributable to common shareholder	3 111	**–1**
Add net income attributable to non-controlling interests	18	**48**
Adjustments to reconcile net income to net cash provided/used by operating activities:		
Depreciation, amortisation and other non-cash items	380	**321**
Net realised investment gains/losses	–1 575	**–1 034**
Income from equity-accounted investees, net of dividends received	88	**66**
Change in:		
Technical provisions and other reinsurance assets and liabilities, net	1 914	**2 440**
Funds held by ceding companies and under reinsurance treaties	1 005	**–309**
Reinsurance recoverable on unpaid claims and policy benefits	408	**31**
Other assets and liabilities, net	–43	**607**
Income taxes payable/recoverable	115	**–406**
Trading positions, net	–26	**–125**
Net cash provided/used by operating activities	5 395	**1 638**
Cash flows from investing activities		
Fixed income securities:		
Sales	32 233	**38 756**
Maturities	3 422	**4 291**
Purchases	–36 665	**–45 496**
Net purchases/sales/maturities of short-term investments	–2 957	**5 073**
Equity securities:		
Sales	2 497	**5 769**
Purchases	–1 380	**–6 077**
Securities purchased/sold under agreement to resell/repurchase, net	763	**–962**
Cash paid/received for acquisitions/disposals and reinsurance transactions, net		**53**
Net purchases/sales/maturities of other investments	1 060	**–2 051**
Net purchases/sales/maturities of investments held for unit-linked business	135	**67**
Net cash provided/used by investing activities	–892	**–577**
Cash flows from financing activities		
Policyholder account balances for unit-linked business:		
Deposits	13	**6**
Withdrawals	–170	**–97**
Issuance/repayment of long-term debt	–91	**–155**
Issuance/repayment of short-term debt	–1 471	**–941**
Issuance/repayment of contingent capital instrument		**–352**
Purchase/sale of shares in Swiss Re Ltd.	2	**1**
Transactions with non-controlling interests	733	**200**
Dividends paid to parent	–3 004	**–2 600**
Net cash provided/used by financing activities	–3 988	**–3 938**

USD millions	2016	2017
Total net cash provided/used	515	**–2 877**
Effect of foreign currency translation	–83	**265**
Change in cash and cash equivalents	432	**–2 612**
Cash and cash equivalents as of 1 January	5 398	**5 830**
Cash and cash equivalents as of 31 December	5 830	**3 218**

Interest paid was USD 741 million and USD 671 million (thereof USD 51 million and USD 49 million for letter of credit fees) for 2016 and 2017, respectively. Tax paid was USD 515 million and USD 507 million for 2016 and 2017, respectively.

The accompanying notes are an integral part of the Group financial statements.

Notes to the Group financial statements

1 Organisation and summary of significant accounting policies

Nature of operations

The Swiss Reinsurance Company Group, which is headquartered in Zurich, Switzerland, comprises Swiss Reinsurance Company Ltd (the parent company, referred to as "SRZ") and its subsidiaries (collectively, the "Group"). The Group is a wholesale provider of reinsurance, insurance and other insurance-based forms of risk transfer. Working through brokers and a network of offices around the globe, the Group serves a client base made up of insurance companies and public sector clients.

SRZ is a wholly owned subsidiary of Swiss Re Ltd. Swiss Re Ltd is the ultimate parent company of the Swiss Re Group, which consists of four business segments: Property & Casualty Reinsurance, Life & Health Reinsurance, Corporate Solutions and Life Capital. The presentation of each segment's balance sheet is closely aligned with the segment legal entity structure.

Basis of presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (US GAAP) and comply with Swiss law. All significant intra-group transactions and balances have been eliminated on consolidation.

Principles of consolidation

The Group's financial statements include the consolidated financial statements of SRZ and its subsidiaries. Voting entities which SRZ directly or indirectly controls through holding a majority of the voting rights are consolidated in the Group's accounts. Variable interest entities (VIEs) are consolidated when the Group is the primary beneficiary. The Group is the primary beneficiary when it has power over the activities that impact the VIE's economic performance and at the same time has the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE. Companies which the Group does not control, but over which it directly or indirectly exercises significant influence, are accounted for using the equity method or the fair value option and are included in other invested assets. The Group's share of net profit or loss in investments accounted for under the equity method is included in net investment income. Equity and net income of these companies are adjusted as necessary to be in line with the Group's accounting policies. The results of consolidated subsidiaries and investments accounted for using the equity method are included in the financial statements for the period commencing from the date of acquisition.

Use of estimates in the preparation of financial statements

The preparation of financial statements requires management to make significant estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses as well as the related disclosure, including contingent assets and liabilities. The Group's liabilities for unpaid claims and claim adjustment expenses and policy benefits for life and health include estimates for premium, claim and benefit data not received from ceding companies at the date of the financial statements. In addition, the Group uses certain financial instruments and invests in securities of certain entities for which exchange trading does not exist. The Group determines these estimates based on historical information, actuarial analyses, financial modelling and other analytical techniques. Actual results could differ significantly from the estimates described above.

Foreign currency remeasurement and translation

Transactions denominated in foreign currencies are remeasured to the respective subsidiary's functional currency at average exchange rates. Monetary assets and liabilities are remeasured to the functional currency at closing exchange rates, whereas non-monetary assets and liabilities are remeasured to the functional currency at historical rates. Remeasurement gains and losses on monetary assets and liabilities and trading securities are reported in earnings. Remeasurement gains and losses on available-for-sale securities, investments in consolidated subsidiaries and investments accounted for using the equity method are reported in shareholder's equity.

For consolidation purposes, assets and liabilities of subsidiaries with functional currencies other than US dollars are translated from the functional currency to US dollars at closing rates. Revenues and expenses are translated at average exchange rates. Translation adjustments are reported in shareholder's equity.

Valuation of financial assets

The fair value of the majority of the Group's financial instruments is based on quoted prices in active markets or observable inputs. These instruments include government and agency securities, commercial paper, most investment-grade corporate debt, most high-yield debt securities, exchange-traded derivative instruments, most mortgage- and asset-backed securities and listed equity securities. In markets with reduced or no liquidity, spreads between bid and offer prices are normally wider compared to spreads in highly liquid markets. Such market conditions affect the valuation of certain asset classes of the Group, such as some asset-backed securities as well as certain derivative structures referencing such asset classes.

The Group considers both the credit risk of its counterparties and own risk of non-performance in the valuation of derivative instruments and other over-the-counter financial assets. In determining the fair value of these financial instruments, the assessment of the Group's exposure to the credit risk of its counterparties incorporates consideration of existing collateral and netting arrangements entered into with each counterparty. The measure of the counterparty credit risk is estimated with incorporation of the observable credit spreads, where available, or credit spread estimates derived based on the benchmarking techniques where market data is not available. The impact of the Group's own risk of non-performance is analysed in the manner consistent with the aforementioned approach, with consideration of the Group's observable credit spreads. The value representing such risk is incorporated into the fair value of the financial instruments (primarily derivatives), in a liability position as of the measurement date. The change in this adjustment from period to period is reflected in realised gains and losses in the income statement.

For assets or derivative structures at fair value, the Group uses market prices or inputs derived from market prices. A separate internal price verification process, independent of the trading function, provides an additional control over the market prices or market input used to determine the fair values of such assets. Although management considers that appropriate values have been ascribed to such assets, there is always a level of uncertainty and judgement over these valuations. Subsequent valuations could differ significantly from the results of the process described above. The Group may become aware of counterparty valuations, either directly through the exchange of information or indirectly, for example, through collateral demands. Any implied differences are considered in the independent price verification process and may result in adjustments to initially indicated valuations. As of 31 December 2017, the Group had not provided any collateral on financial instruments in excess of its own market value estimates.

Investments

The Group's investments in fixed income and equity securities are classified as available-for-sale (AFS) or trading. Fixed income securities AFS and equity securities AFS are carried at fair value, based on quoted market prices, with the difference between the applicable measure of cost and fair value being recognised in shareholder's equity. Trading fixed income and equity securities are carried at fair value with unrealised gains and losses recognised in earnings. A trading classification is used for securities that are bought and held principally for the purpose of selling them in the near term.

The cost of equity securities AFS is reduced to fair value, with a corresponding charge to realised investment losses if the decline in value, expressed in functional currency terms, is other-than-temporary. Subsequent recoveries of previously recognised impairments are not recognised in earnings.

For fixed income securities AFS that are other-than-temporary impaired and for which there is not an intention to sell, the impairment is separated into (i) the estimated amount relating to credit loss, and (ii) the amount relating to all other factors. The estimated credit loss amount is recognised in earnings, with the remainder of the loss amount recognised in other comprehensive income. In cases where there is an intention or requirement to sell, the accounting of the other-than-temporary impairment is the same as for equity securities AFS described above.

Interest on fixed income securities is recorded in net investment income when earned and is adjusted for the amortisation of any purchase premium or discount. Dividends on equity securities are recognised as investment income on the ex-dividend date. Realised gains and losses on sales are included in earnings and are calculated using the specific identification method.

Policy loans, mortgages and other loans are carried at amortised cost. Interest income is recognised in accordance with the effective yield method.

Investment in real estate that the Group intends to hold for the production of income is carried at depreciated cost, net of any write-downs for impairment in value. Depreciation on buildings is recognised on a straight-line basis over the estimated useful life of the asset. Land is recognised at cost and not depreciated. Impairment in value is recognised if the sum of the estimated future undiscounted cash flows from the use of the real estate is lower than its carrying value. The impairment loss is measured as the amount by which the asset's carrying amount exceeds its fair value and is recognised in realised investment losses. Depreciation and other related charges or credits are included in net investment income. Investment in real estate held for sale is carried at the lower of cost or fair value, less estimated selling costs, and is not depreciated. Reductions in the carrying value of real estate held for sale are included in realised investment losses.

Short-term investments are measured at fair value with changes in fair value recognised in net income. The Group considers highly liquid investments with a remaining maturity at the date of acquisition of one year or less, but greater than three months, to be short-term investments.

Other invested assets include affiliated companies, equity accounted companies, derivative financial instruments, collateral receivables, securities purchased under agreement to resell, deposits and time deposits, and investments without readily determinable fair value (including limited partnership investments). Investments in limited partnerships where the Group's interest equals or exceeds 3% are accounted for using the equity method. Investments in limited partnerships where the Group's interest is below 3% and equity investments in corporate entities which are not publicly traded are accounted for at estimated fair value with changes in fair value recognised as unrealised gains/losses in shareholder's equity.

The Group enters into securities lending arrangements under which it loans certain securities in exchange for collateral and receives securities lending fees. The Group's policy is to require collateral, consisting of cash or securities, equal to at least 102% of the carrying value of the securities loaned. In certain arrangements, the Group may accept collateral of less than 102% if the structure of the overall transaction offers an equivalent level of security. Cash received as collateral is recognised along with an obligation to return the cash. Securities received as collateral that can be sold or repledged are also recognised along with an obligation to return those securities. Securities lending fees are recognised over the term of the related loans.

Derivative financial instruments and hedge accounting

The Group uses a variety of derivative financial instruments including swaps, options, forwards and exchange-traded financial futures for the Group's trading and hedging strategy in line with the overall risk management strategy. Derivative financial instruments are primarily used as a means of managing exposure to price, foreign currency and/or interest rate risk on planned or anticipated investment purchases, existing assets or existing liabilities and also to lock in attractive investment conditions for funds which become available in the future. The Group recognises all of its derivative instruments on the balance sheet at fair value. Changes in fair value on derivatives that are not designated as hedging instruments are recorded in income.

If the derivative is designated as a hedge of the fair value of assets or liabilities, changes in the fair value of the derivative are recognised in earnings, together with changes in the fair value of the related hedged item. If the derivative is designated as a hedge of the variability in expected future cash flows related to a particular risk, changes in the fair value of the derivative are reported in other comprehensive income until the hedged item is recognised in earnings. The ineffective portion of the hedge is recognised in earnings. When hedge accounting is discontinued on a cash flow hedge, the net gain or loss remains in accumulated other comprehensive income and is reclassified to earnings in the period in which the formerly hedged transaction is reported in earnings. When the Group discontinues hedge accounting because it is no longer probable that a forecasted transaction will occur within the required time period, the derivative continues to be carried on the balance sheet at fair value, and gains and losses that were previously recorded in accumulated other comprehensive income are recognised in earnings.

The Group recognises separately derivatives that are embedded within other host instruments if the economic characteristics and risks are not clearly and closely related to the economic characteristics and risks of the host contract and if it meets the definition of a derivative if it were a free-standing contract.

Derivative financial instrument assets are generally included in other invested assets and derivative financial instrument liabilities are generally included in accrued expenses and other liabilities.

The Group also designates non-derivative and derivative monetary financial instruments as hedges of the foreign currency exposure of its net investment in certain foreign operations. From the inception of the hedging relationship, remeasurement gains and losses on the designated non-derivative and derivative monetary financial instruments and translation gains and losses on the hedged net investment are reported as translation gains and losses in shareholder's equity.

Cash and cash equivalents

Cash and cash equivalents include cash on hand, short-term deposits, certain short-term investments in money market funds and highly liquid debt instruments with a remaining maturity at the date of acquisition of three months or less.

Deferred acquisition costs

The Group incurs costs in connection with acquiring new and renewal reinsurance and insurance business. Some of these costs, which consist primarily of commissions, are deferred as they are directly related to the successful acquisition of such business.

Deferred acquisition costs for short-duration contracts are amortised in proportion to premiums earned. Future investment income is considered in determining the recoverability of deferred acquisition costs for short-duration contracts. Deferred acquisition costs for long-duration contracts are amortised over the life of underlying contracts. Deferred acquisition costs for universal-life and similar products are amortised based on the present value of estimated gross profits. Estimated gross profits are updated quarterly.

Modifications of insurance and reinsurance contracts
The Group accounts for modifications of insurance and reinsurance contracts that result in a substantially unchanged contract as a continuation of the replaced contract. The associated deferred acquisition costs and present value of future profits (PVFP) will continue to be amortised. The Group accounts for modifications of insurance and reinsurance contracts that result in a substantially changed contract as an extinguishment of the replaced contract. The associated deferred acquisition costs or PVFP are written off immediately through income and any new deferrable costs associated with the replacement contract are deferred.

Business combinations
The Group applies the acquisition method of accounting for business combinations. This method allocates the cost of the acquired entity to the assets and liabilities assumed based on their estimated fair values at the date of acquisition.

The underlying assets and liabilities acquired are subsequently accounted for according to the relevant GAAP guidance. This includes specific requirements applicable to subsequent accounting for assets and liabilities recognised as part of the acquisition method of accounting, including present value of future profits, goodwill and other intangible assets.

Acquired present value of future profits
The acquired present value of future profits (PVFP) of business in force is recorded in connection with the acquisition of life and health business. The initial value is calculated as the difference between established reserves, which are set up in line with US GAAP accounting policies and assumptions of the Group, and their fair value at the acquisition date. The resulting PVFP, which could be positive or negative, is amortised on a constant yield basis over the expected revenue recognition period of the business acquired, generally over periods ranging up to 30 years, with the accrual of interest added to the unamortised balance at the earned rate. Amortisation and accrual of interest are recognised in acquisition costs. The earned rate corresponds to either the current earned rate or the original earned rate depending on the business written. The rate is consistently applied for the entire life of the applicable business. For universal-life and similar products, PVFP is amortised in line with estimated gross profits, which are updated quarterly. The carrying value of PVFP is reviewed periodically for indicators of impairment in value. Adjustments to PVFP reflecting impairment in value are recognised in acquisition costs during the period in which the determination of impairment is made, or in other comprehensive income for shadow loss recognition.

Goodwill
The excess of the purchase price of acquired businesses over the estimated fair value of net assets acquired is recorded as goodwill, which is reviewed periodically for indicators of impairment in value. Adjustments to reflect impairment in value are recognised in earnings in the period in which the determination of impairment is made.

Other assets
Other assets include deferred expenses on retroactive reinsurance, prepaid reinsurance premiums, receivables related to investing activities, real estate for own use, other classes of property, plant and equipment, accrued income, certain intangible assets and prepaid assets.

The excess of estimated liabilities for claims and claim adjustment expenses payable over consideration received in respect of retroactive property and casualty reinsurance contracts is recorded as a deferred expense. The deferred expense on retroactive reinsurance contracts is amortised through earnings over the expected claims-paying period.

Real estate for own use as well as other classes of property, plant and equipment are carried at depreciated cost. Depreciation on buildings is recognised on a straight-line basis over the estimated useful life. Land is recognised at cost and not depreciated.

Capitalised software costs
External direct costs of materials and services incurred to develop or obtain software for internal use, payroll and payroll-related costs for employees directly associated with software development and interest cost incurred while developing software for internal use are capitalised and amortised on a straight-line basis through earnings over the estimated useful life.

Income taxes
Deferred income tax assets and liabilities are recognised based on the difference between financial statement carrying amounts and the corresponding income tax bases of assets and liabilities using enacted income tax rates and laws. A valuation allowance is recorded against deferred tax assets when it is deemed more likely than not that some or all of the deferred tax asset may not be realised.

The Group recognises the effect of income tax positions only if sustaining those positions is more likely than not. Changes in recognition or measurement are reflected in the period in which a change in judgement occurs.

Unpaid claims and claim adjustment expenses
Liabilities for unpaid claims and claim adjustment expenses for property and casualty and life and health insurance and reinsurance contracts are accrued when insured events occur and are based on the estimated ultimate cost of settling the claims,

using reports and individual case estimates received from ceding companies. A provision is also included for claims incurred but not reported, which is developed on the basis of past experience adjusted for current trends and other factors that modify past experience. The establishment of the appropriate level of reserves is an inherently uncertain process involving estimates and judgements made by management, and therefore there can be no assurance that ultimate claims and claim adjustment expenses will not exceed the loss reserves currently established. These estimates are regularly reviewed, and adjustments for differences between estimates and actual payments for claims and for changes in estimates are reflected in income in the period in which the estimates are changed or payments are made.

The Group does not discount liabilities arising from prospective property and casualty insurance and reinsurance contracts, including liabilities which are discounted for US statutory reporting purposes. Liabilities arising from property and casualty insurance and reinsurance contracts acquired in a business combination are initially recognised at fair value in accordance with the acquisition method of accounting. The Group does not discount life and health claim reserves except for disability income claims in payment which are recognised at the estimated present value of the remaining ultimate net costs of the incurred claims.

Experience features which are directly linked to a reinsurance asset or liability are classified in a manner that is consistent with the presentation of that asset or liability.

Liabilities for life and health policy benefits

Liabilities for life and health policy benefits from reinsurance business are generally calculated using the net level premium method, based on assumptions as to investment yields, mortality, withdrawals, lapses and policyholder dividends. Assumptions are set at the time the contract is issued or, in the case of contracts acquired by purchase, at the purchase date. The assumptions are based on projections from past experience, making allowance for possible adverse deviation. Interest rate assumptions for life and health (re)insurance benefit liabilities are based on estimates of expected investment yields. Assumed mortality rates are generally based on experience multiples applied to the actuarial select and ultimate tables based on industry experience.

Liabilities for life and health policy benefits are increased with a charge to earnings if it is determined that future cash flows, including investment income, are insufficient to cover future benefits and expenses. Where assets backing liabilities for policy benefits are held as AFS these liabilities for policyholder benefits are increased by a shadow adjustment, with a charge to other comprehensive income, where future cash flows at market rates are insufficient to cover future benefits and expenses.

Policyholder account balances

Policyholder account balances relate to universal-life-type contracts and investment contracts.

Universal-life-type contracts are long-duration insurance contracts, providing either death or annuity benefits, with terms that are not fixed and guaranteed.

Investment contracts are long-duration contracts that do not incorporate significant insurance risk, ie there is no mortality and morbidity risk, or the mortality and morbidity risk associated with the insurance benefit features offered in the contract is of insignificant amount or remote probability. Amounts received as payment for investment contracts are reported as policyholder account balances. Related assets are included in general account assets except for investments for unit-linked business, which are presented in a separate line item on the face of the balance sheet.

Amounts assessed against policyholders for mortality, administration and surrender are shown as fee income. Amounts credited to policyholders are shown as interest credited to policyholders. Investment income and realised investment gains and losses allocable to policyholders are included in net investment income and net realised investment gains/losses except for unit-linked business which is presented in a separate line item on the face of the income statement. For unit-linked contracts, the investment risk is borne by the policyholder. Additional disclosures are provided in Note 7.

Funds held assets and liabilities

On the asset side, funds held by ceding companies consist mainly of amounts retained by the ceding company for business written on a funds withheld basis. In addition, the account also includes amounts arising from the application of the deposit method of accounting to ceded retrocession or reinsurance contracts.

On the liability side, funds held under reinsurance treaties consist mainly of amounts arising from the application of the deposit method of accounting to inward insurance and reinsurance contracts. In addition, the account also includes amounts retained from ceded business written on a funds withheld basis.

Funds withheld assets are assets that would normally be paid to the Group but are withheld by the cedent to reduce a potential credit risk or to retain control over investments. In case of funds withheld liabilities, it is the Group that withholds assets related to ceded business in order to reduce its credit risk or retain control over the investments.

The deposit method of accounting is applied to insurance and reinsurance contracts that do not indemnify the ceding company or the Group against loss or liability relating to insurance risk. Under the deposit method of accounting, the deposit asset or liability is initially measured based on the consideration paid or received. For contracts that transfer neither significant timing nor underwriting risk, and contracts that transfer only significant timing risk, changes in estimates of the timing or amounts of cash flows are accounted for by recalculating the effective yield. The deposit is then adjusted to the amount that would have existed had the new effective yield been applied since the inception of the contract. The revenue and expense recorded for such contracts is included in net investment income. For contracts that transfer only significant underwriting risk, once a loss is incurred, the deposit is adjusted by the present value of the incurred loss. At each subsequent balance sheet date, the portion of the deposit attributable to the incurred loss is recalculated by discounting the estimated future cash flows. The resulting changes in the carrying amount of the deposit are recognised in claims and claim adjustment expenses.

Funds withheld balances are presented together with assets and liabilities arising from the application of the deposit method because of their common deposit-type character.

Shadow adjustments
Shadow adjustments are recognised in other comprehensive income reflecting the offset of adjustments to deferred acquisition costs and PVFP, typically related to universal-life-type contracts, and policyholder liabilities. The purpose is to reflect the fact that certain amounts recorded as unrealised investment gains and losses within shareholder's equity will ultimately accrue to policyholders and not to the shareholder.

Shadow loss recognition testing becomes relevant in low interest rate environments. The test considers whether the hypothetical sale of AFS securities and the reinvestment of proceeds at lower yields would lead to negative operational earnings in future periods, thereby causing a loss recognition event. For shadow loss recognition testing, the Group uses current market yields to determine best estimate GAAP reserves rather than using locked in or current book yields. If the unlocked best estimate GAAP reserves based on current market rates are in excess of reserves based on locked in or current book yields, a shadow loss recognition reserve is set up. These reserves are recognised in other comprehensive income and do not impact net income. In addition, shadow loss recognition reserves can reverse up to the amount of losses recognised due to past loss events.

Premiums
Property and casualty reinsurance premiums are recorded when written and include an estimate for written premiums receivable at period end. Premiums earned are generally recognised in income over the contract period in proportion to the amount of reinsurance provided. Unearned premiums consist of the unexpired portion of reinsurance provided. Life reinsurance premiums are earned when due. Related policy benefits are recorded in relation to the associated premium or gross profits so that profits are recognised over the expected lives of the contracts.

Life and health reinsurance premiums for group coverages are generally earned over the term of the coverage. For group contracts that allow experience adjustments to premiums, such premiums are recognised as the related experience emerges.

Reinstatement premiums are due where coverage limits for the remaining life of the contract are reinstated under pre-defined contract terms. The recognition of reinstatement premiums as written depends on individual contract features. Reinstatement premiums are either recognised as written at the time a loss event occurs or in line with the recognition pattern of premiums written of the underlying contract. The accrual of reinstatement premiums is based on actuarial estimates of ultimate losses. Reinstatement premiums are generally earned in proportion to the amount of reinsurance provided.

Insurance and reinsurance ceded
The Group uses retrocession arrangements to increase its aggregate underwriting capacity, to diversify its risk and to reduce the risk of catastrophic loss on reinsurance assumed. The ceding of risks to retrocessionaires does not relieve the Group of its obligations to its ceding companies. The Group regularly evaluates the financial condition of its retrocessionaires and monitors the concentration of credit risk to minimise its exposure to financial loss from retrocessionaires' insolvency. Premiums and losses ceded under retrocession contracts are reported as reductions of premiums earned and claims and claim adjustment expenses. Amounts recoverable for ceded short- and long-duration contracts, including universal-life-type and investment contracts, are reported as assets in the accompanying consolidated balance sheet.

The Group provides reserves for uncollectible amounts on reinsurance balances ceded, based on management's assessment of the collectability of the outstanding balances.

Receivables
Premium and claims receivables which have been invoiced are accounted for at face value. Together with assets arising from the application of the deposit method of accounting that meet the definition of financing receivables they are regularly assessed for impairment. Evidence of impairment is the age of the receivable and/or any financial difficulties of the counterparty. Allowances are set up on the net balance, meaning all balances related to the same counterparty are considered. The amount of the allowance

is set up in relation to the time a receivable has been due and financial difficulties of the debtor, and can be as high as the outstanding net balance.

Pensions and other post-retirement benefits
The Group accounts for its pension and other post-retirement benefit costs using the accrual method of accounting. Amounts charged to expense are based on periodic actuarial determinations.

Share-based payment transactions
As of 31 December 2017, the Group has a Leadership Performance Plan, restricted shares, and a Global Share Participation Plan. The Group accounts for share-based payment transactions with employees using the fair value method. Under the fair value method, the fair value of the awards is recognised in earnings over the vesting period. Total compensation cost for share-based compensation plans recognised in net income was USD 19 million for the year ended 31 December 2017.

For share-based compensation plans which are settled in cash, compensation costs are recognised as liabilities, whereas for equity-settled plans, compensation costs are recognised as an accrual to additional paid-in capital within shareholder's equity. As of 31 December 2017, the accrual for share-based compensation plans in additional paid-in capital was USD 9 million.

Shares in Swiss Re Ltd
Shares in Swiss Re Ltd are reported at cost in shareholder's equity.

Subsequent events
Subsequent events for the current reporting period have been evaluated up to 14 March 2018. This is the date on which the financial statements are available to be issued.

Recent accounting guidance
In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers", which creates topic 606, "Revenue from Contracts with Customers". ASU 2014-09 outlines the principles that an entity should follow to provide useful information about the amount, timing and uncertainty of revenue and cash flows arising from contracts with its customers. The standard requires an entity to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Insurance contracts and financial instruments are not in the scope of the new standard. The Group will adopt ASU 2014-09 on 1 January 2018. It is expected that the adoption will not have a material impact on the Group's financial statements.

In January 2016, the FASB issued ASU 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities", an update to subtopic 825-10, "Financial Instruments – Overall". The ASU requires an entity to carry investments in equity securities, including partnerships, unincorporated joint ventures and limited liability companies at fair value through net income, with the exception of equity method investments, investments that result in consolidation or investments for which the entity has elected the measurement alternative. For financial liabilities to which the fair value option has been applied, the ASU also requires an entity to separately present the change in fair value attributable to instrument-specific credit risk in other comprehensive income rather than in net income. In addition, the ASU requires an entity to assess whether a valuation allowance is needed on a deferred tax asset (DTA) related to fixed income securities available-for-sale in combination with the entity's other DTAs rather than separately from other DTAs. The Group will adopt ASU 2016-01 on 1 January 2018. The expected main impact from the adoption is a reclassification within shareholder's equity from net unrealised gains, net of tax, to retained earnings of USD 0.1 billion.

In February 2016, the FASB issued ASU 2016-02, "Leases", which creates topic 842, "Leases". The core principle of topic 842 is that a lessee should recognise the assets and liabilities that arise from leases. A lessee should recognise in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing the right to use the underlying asset for the lease term. This accounting treatment applies to finance leases and operating leases. The accounting applied by a lessor is largely unchanged from that applied under the current guidance. The new requirements are effective for annual and interim periods beginning after 15 December 2018. Early application of the ASU is permitted. The Group is currently assessing the impact of the new requirements.

In March 2016, the FASB issued ASU 2016-05, "Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships", an update to topic 815, "Derivatives and Hedging". The amendments in this ASU clarify that a change in the counterparty to a derivative instrument that has been designated as the hedging instrument under topic 815 does not require dedesignation of that hedging relationship provided that all other hedge accounting criteria continue to be met. The Group adopted ASU 2016-05 on 1 January 2017. The adoption did not have an impact on the Group's financial statements.

In March 2016, the FASB issued ASU 2016-06, "Contingent Put and Call Options in Debt Instruments", an update to topic 815, "Derivatives and Hedging". This ASU clarifies the requirements for assessing whether contingent call or put options that can accelerate the payment of principal on debt instruments are clearly and closely related to their debt hosts. An entity performing the assessment under the amendments in this update is required to assess the embedded call or put options solely in accordance with the four-step decision sequence as defined in the implementation guidance issued by the Derivatives Implementation Group (DIG). The Group adopted ASU 2016-06 on 1 January 2017. The adoption did not have an impact on the Group's financial statements.

In March 2016, the FASB issued ASU 2016-07, "Simplifying the Transition to the Equity Method of Accounting", an update to topic 323, "Investments – Equity Method and Joint Ventures". The amendments in this update eliminate the requirement to retroactively adopt the equity method of accounting when an investment qualifies for use of the equity method as a result of an increase in the level of ownership interest or degree of influence. Instead, the amendments require that the equity method investor adds the cost of acquiring the additional interest in the investee to the current basis of the investor's previously held interest and adopts the equity method of accounting as of the date the investment qualifies for equity method accounting. The Group adopted ASU 2016-07 on 1 January 2017. The adoption did not have an impact on the Group's financial statements.

In March 2016, the FASB issued ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting", an update to topic 718, "Compensation – Stock Compensation". This ASU is part of the Board's Simplification Initiative and the areas for simplification in this update involve several aspects of accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows. The Group adopted ASU 2016-09 on 1 January 2017. The adoption did not have a material effect on the Group's financial statements.

In June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses", an update to topic 326, "Financial Instruments – Credit Losses". ASU 2016-13 replaces the incurred loss impairment methodology in current US GAAP with a methodology that reflects expected credit losses. For financial instruments that are measured at amortised cost and available-for-sale debt securities, the standard requires that an entity recognises its estimate of expected credit losses as an allowance. The ASU is effective for annual and interim periods beginning after 15 December 2020. Early adoption for interim and annual periods after 15 December 2018 is permitted. The Group is currently assessing the impact of the new requirements.

In October 2016, the FASB issued ASU 2016-16, "Intra-Entity Transfers of Assets Other Than Inventory", an update to topic 740, "Income Taxes". This ASU amends the current guidance which prohibits the recognition of current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party. This new standard requires that an entity recognise the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The Group will adopt ASU 2016-16 on 1 January 2018. It is expected that the adoption will not have a material impact on the Group's equity.

In October 2016, the FASB issued ASU 2016-17, "Interests Held through Related Parties That Are under Common Control", an update to topic 810, "Consolidation". This ASU amends the consolidation guidance on how a reporting entity that is the single decision maker of a variable interest entity (VIE) should treat indirect interests in the entity held through related parties that are under common control with the reporting entity when determining whether it is the primary beneficiary of that VIE. Under the amendments, a single decision maker is not required to consider indirect interests held through related parties that are under common control with the single decision maker to be the equivalent of direct interests in their entirety. Instead, a single decision maker is required to include those interests on a proportionate basis consistent with indirect interests held through other related parties. The Group adopted ASU 2016-17 on 1 January 2017. The adoption did not have an impact on the Group's financial statements.

In January 2017, the FASB issued ASU 2017-01, "Clarifying the Definition of a Business", an update to topic 805, "Business Combinations". The amendments in this update clarify the definition of a business in order to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The amendments stipulate that when substantially all of the fair value of an integrated set of assets and activities ("set") acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. The Group early adopted ASU 2017-01 on 1 July 2017. The adoption did not have an impact on the Group's financial statements.

In January 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment", an update to topic 350, "Intangibles – Goodwill and Other". This ASU simplifies the subsequent measurement of goodwill and eliminates Step 2 from the goodwill impairment test. In computing the implied fair value of goodwill under Step 2, an entity has to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities (including unrecognised assets and liabilities) following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. Instead, under the amendments in this update, an entity should perform its regular goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognise an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognised should not exceed the total amount of goodwill allocated to that reporting unit. The new requirements are effective for goodwill impairment tests in annual and interim periods beginning after 15 December 2020. Early application of the ASU is permitted. The Group is currently assessing the impact of the new requirements.

2 Information on business segments

The Group provides reinsurance and insurance throughout the world through its business segments. The business segments are determined by the organisational structure and by the way in which management reviews the operating performance of the Group.

The Group presents two core operating business segments: Property & Casualty Reinsurance and Life & Health Reinsurance. The presentation of each segment's balance sheet is closely aligned to the segment legal entity structure. The assignment of assets and liabilities for entities that span more than one segment is determined by considering local statutory requirements, legal and other constraints, the economic view of duration and currency requirements of the reinsurance business written and the capacity of the segments to absorb risks. Interest expense is based on the segment's capital funding position. The tax impact of a segment is derived from the legal entity tax obligations and the segmentation of the pre-tax result. While most of the tax items can be directly attributed to individual segments, the tax which impacts two or more segments is allocated to the segments on a reasonable basis. Property & Casualty Reinsurance and Life & Health Reinsurance share the same year-to-date effective tax rate as both business segments belong to the Reinsurance Business Unit.

Accounting policies applied by the business segments are in line with those described in the summary of significant accounting policies (please refer to Note 1).

The Group operating segments are outlined below.

Property & Casualty Reinsurance and Life & Health Reinsurance
Reinsurance consists of two segments, Property & Casualty and Life & Health. The Reinsurance business operates globally, both through brokers and directly with clients, and provides a large range of solutions for risk and capital management. Clients include stock and mutual insurance companies as well as public sector and governmental entities. In addition to traditional reinsurance solutions, the business unit offers insurance-linked securities and other insurance-related capital market products in both Property & Casualty and Life & Health.

Property & Casualty includes the business lines property, casualty (including motor) and specialty. Life & Health includes the life and health lines of business.

Other
Items not allocated to the business segments are included in the "Other" column which encompasses non-core activities. The "Other" column includes mainly certain costs not allocated to the Reinsurance business segments, certain Treasury activities, as well as the remaining non-core activities which have been in run-off since November 2007.

As of January 2017 the Group's primary life and health insurance business was sold to Swiss Re Life Capital Group. Comparative information has not been adjusted.

Consolidation
Segment information is presented net of external and internal retrocession and other intra-group arrangements. The Group total is obtained after elimination of intra-group transactions in the "Consolidation" column. In the periods presented, significant intra-group transactions related to intra-group reinsurance arrangements and certain treasury-related activities are included.

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a) Business segments – income statement

For the year ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Revenues					
Gross premiums written	18 173	12 801	997	–304	31 667
Net premiums written	17 768	11 459	488		29 715
Change in unearned premiums	–760	27	11		–722
Premiums earned	17 008	11 486	499		28 993
Fee income from policyholders		41	88		129
Net investment income – non-participating business	985	1 279	493	–29	2 728
Net realised investment gains/losses – non-participating business	770	232	590		1 592
Net investment result – unit-linked business		15			15
Other revenues	37	5	2	–3	41
Total revenues	18 800	13 058	1 672	–32	33 498
Expenses					
Claims and claim adjustment expenses	–10 301		2		–10 299
Life and health benefits		–8 963	–597		–9 560
Return credited to policyholders		–39	–319		–358
Acquisition costs	–4 405	–1 943	–34		–6 382
Operating expenses	–1 204	–763	–506		–2 473
Total expenses before interest expenses	–15 910	–11 708	–1 454	0	–29 072
Income before interest and income tax expense	2 890	1 350	218	–32	4 426
Interest expenses	–293	–301	–19	32	–581
Income before income tax expense	2 597	1 049	199	0	3 845
Income tax expense/benefit	–479	–193	24		–648
Net income before attribution of non-controlling interests	2 118	856	223	0	3 197
Income/loss attributable to non-controlling interests	1		–19		–18
Net income after attribution of non-controlling interests	2 119	856	204	0	3 179
Interest on contingent capital instruments, net of tax	–19	–49			–68
Net income attributable to common shareholder	2 100	807	204	0	3 111
Claims ratio in %	60.5				
Expense ratio in %	33.0				
Combined ratio in %	93.5				
Management expense ratio in %		6.0			
Net operating margin in %	15.4	10.4	13.0		13.2

Business segments – income statement

For the year ended 31 December

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Revenues					
Gross premiums written	16 569	13 313	127		30 009
Net premiums written	16 031	11 826	6		27 863
Change in unearned premiums	636	25	1		662
Premiums earned	16 667	11 851	7		28 525
Fee income from policyholders		129	1		130
Net investment income – non-participating business	1 017	1 308	–50	–49	2 226
Net realised investment gains/losses – non-participating business	613	591	–223		981
Net investment result – unit-linked business		81			81
Other revenues	48	3	2	–3	50
Total revenues	**18 345**	**13 963**	**–263**	**–52**	**31 993**
Expenses					
Claims and claim adjustment expenses	–13 172				–13 172
Life and health benefits		–9 211	2		–9 209
Return credited to policyholders		–119	–2		–121
Acquisition costs	–4 253	–2 064	26		–6 291
Operating expenses	–1 159	–754	–487		–2 400
Total expenses before interest expenses	**–18 584**	**–12 148**	**–461**	**0**	**–31 193**
Income/loss before interest and income tax expense	**–239**	**1 815**	**–724**	**–52**	**800**
Interest expenses	–280	–315	–24	52	–567
Income/loss before income tax expense/benefit	**–519**	**1 500**	**–748**	**0**	**233**
Income tax expense/benefit	125	–360	116		–119
Net income/loss before attribution of non-controlling interests	**–394**	**1 140**	**–632**	**0**	**114**
Income/loss attributable to non-controlling interests			–48		–48
Net income/loss after attribution of non-controlling interests	**–394**	**1 140**	**–680**	**0**	**66**
Interest on contingent capital instruments, net of tax	–19	–48			–67
Net income/loss attributable to common shareholder	**–413**	**1 092**	**–680**	**0**	**–1**
Claims ratio in %	79.0				
Expense ratio in %	32.5				
Combined ratio in %	111.5				
Management expense ratio in %		5.7			
Net operating margin in %	–1.3	13.1	275.3		2.5

Business segments – balance sheet
As of 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Total assets	79 263	55 957	14 029	–10 638	138 611

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Total assets	**80 475**	**64 559**	**16 589**	**–11 505**	**150 118**

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b) Property & Casualty Reinsurance business segment – by line of business
For the year ended 31 December

2016 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	6 815	8 874	2 484		18 173
Net premiums written	6 499	8 833	2 436		17 768
Change in unearned premiums	153	–830	–83		–760
Premiums earned	6 652	8 003	2 353		17 008
Net investment income				985	985
Net realised investment gains/losses				770	770
Other revenues				37	37
Total revenues	6 652	8 003	2 353	1 792	18 800
Expenses					
Claims and claim adjustment expenses	–3 745	–5 466	–1 090		–10 301
Acquisition costs	–1 351	–2 468	–586		–4 405
Operating expenses	–665	–385	–154		–1 204
Total expenses before interest expenses	–5 761	–8 319	–1 830	0	–15 910
Income/loss before interest and income tax expense	891	–316	523	1 792	2 890
Interest expenses				–293	–293
Income/loss before income tax expense	891	–316	523	1 499	2 597
Claims ratio in %	56.3	68.3	46.4		60.5
Expense ratio in %	30.3	35.6	31.4		33.0
Combined ratio in %	86.6	103.9	77.8		93.5

Property & Casualty Reinsurance business segment – by line of business

For the year ended 31 December

2017 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	6 527	7 715	2 327		16 569
Net premiums written	6 115	7 665	2 251		16 031
Change in unearned premiums	140	435	61		636
Premiums earned	6 255	8 100	2 312		16 667
Net investment income				1 017	1 017
Net realised investment gains/losses				613	613
Other revenues				48	48
Total revenues	**6 255**	**8 100**	**2 312**	**1 678**	**18 345**
Expenses					
Claims and claim adjustment expenses	–5 635	–6 041	–1 496		–13 172
Acquisition costs	–1 228	–2 414	–611		–4 253
Operating expenses	–636	–356	–167		–1 159
Total expenses before interest expenses	**–7 499**	**–8 811**	**–2 274**	**0**	**–18 584**
Income/loss before interest and income tax expense	**–1 244**	**–711**	**38**	**1 678**	**–239**
Interest expenses				–280	–280
Income/loss before income tax expense	**–1 244**	**–711**	**38**	**1 398**	**–519**
Claims ratio in %	90.1	74.6	64.7		79.0
Expense ratio in %	29.8	34.2	33.7		32.5
Combined ratio in %	119.9	108.8	98.4		111.5

c) Life & Health Reinsurance business segment – by line of business

For the year ended 31 December

2016 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	9 026	3 775		12 801
Net premiums written	7 773	3 686		11 459
Change in unearned premiums	5	22		27
Premiums earned	7 778	3 708		11 486
Fee income from policyholders	41			41
Net investment income – non-participating business[1]	912	367		1 279
Net realised investment gains/losses – non-participating business	21	–4	215	232
Net investment result – unit-linked business	15			15
Other revenues	5			5
Total revenues	8 772	4 071	215	13 058
Expenses				
Life and health benefits	–6 093	–2 870		–8 963
Return credited to policyholders	–39			–39
Acquisition costs	–1 237	–706		–1 943
Operating expenses	–536	–227		–763
Total expenses before interest expenses	–7 905	–3 803	0	–11 708
Income before interest and income tax expense	867	268	215	1 350
Interest expenses			–301	–301
Income/loss before income tax expense	867	268	–86	1 049
Management expense ratio in %	6.1	5.6		6.0
Net operating margin[2] in %	9.9	6.6		10.4

[1] The Group revised the methodology for allocating investment return to lines of business. Comparative information for 2016 has been adjusted accordingly.
[2] Net operating margin is calculated as "Income before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked business".

Life & Health Reinsurance business segment – by line of business

For the year ended 31 December

2017 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	9 525	3 788		13 313
Net premiums written	8 138	3 688		11 826
Change in unearned premiums	79	–54		25
Premiums earned	8 217	3 634		11 851
Fee income from policyholders	129			129
Net investment income – non-participating business	1 023	285		1 308
Net realised investment gains/losses – non-participating business	57	–1	535	591
Net investment result – unit-linked business	81			81
Other revenues	3			3
Total revenues	**9 510**	**3 918**	**535**	**13 963**
Expenses				
Life and health benefits	–6 491	–2 720		–9 211
Return credited to policyholders	–119			–119
Acquisition costs	–1 432	–632		–2 064
Operating expenses	–533	–221		–754
Total expenses before interest expenses	**–8 575**	**–3 573**	**0**	**–12 148**
Income before interest and income tax expense	**935**	**345**	**535**	**1 815**
Interest expenses			–315	–315
Income before income tax expense	**935**	**345**	**220**	**1 500**
Management expense ratio in %	5.7	5.6		5.7
Net operating margin[1] in %	9.9	8.8		13.1

[1] Net operating margin is calculated as "Income before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked business".

d) Gross premiums earned and fee income from policyholders by geography

Gross premiums earned and fee income from policyholders by region for the years ended 31 December

USD millions	2016	2017
Americas	14 377	15 350
Europe (including Middle East and Africa)	9 742	8 752
Asia-Pacific	6 946	6 791
Total	31 065	**30 893**

Gross premiums earned and fee income from policyholders by country for the years ended 31 December

USD millions	2016	2017
United States	11 904	13 001
United Kingdom	3 036	2 684
Australia	1 823	1 980
China	2 401	1 910
Japan	1 094	1 161
Germany	1 044	1 082
Canada	1 009	1 030
Switzerland	940	1 013
France	652	638
Spain	461	509
Republic of Korea	482	479
Other	6 219	5 406
Total	31 065	**30 893**

Gross premiums earned and fee income from policyholders are allocated by country, based on the underlying contract.

3 Insurance information

Premiums earned and fees assessed against policyholders
For the years ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Premiums earned, thereof:				
Direct		45	799	844
Reinsurance	17 474	12 446	172	30 092
Intra-group transactions (assumed and ceded)		352	–352	0
Premiums earned before retrocession to external parties	17 474	12 843	619	30 936
Retrocession to external parties	–466	–1 357	–120	–1 943
Net premiums earned	17 008	11 486	499	28 993
Fee income from policyholders, thereof:				
Direct				0
Reinsurance		41	88	129
Net fee income	0	41	88	129

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Premiums earned, thereof:				
Direct		55		55
Reinsurance	17 197	13 287	128	30 612
Intra-group transactions (assumed and ceded)				0
Premiums earned before retrocession to external parties	17 197	13 342	128	30 667
Retrocession to external parties	–530	–1 491	–121	–2 142
Net premiums earned	**16 667**	**11 851**	**7**	**28 525**
Fee income from policyholders, thereof:				
Direct				0
Reinsurance		130	96	226
Gross fee income before retrocession to external parties		130	96	226
Retrocession to external parties		–1	–95	–96
Net fee income	**0**	**129**	**1**	**130**

Claims and claim adjustment expenses

For the year ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Claims paid, thereof:				
Gross claims paid to external parties	−9 242	−10 234	−1 014	−20 490
Intra-group transactions (assumed and ceded)		−275	275	0
Claims before receivables from retrocession to external parties	−9 242	−10 509	−739	−20 490
Retrocession to external parties	536	1 205	53	1 794
Net claims paid	−8 706	−9 304	−686	−18 696
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:				
Gross – with external parties	−1 218	387	11	−820
Intra-group transactions (assumed and ceded)		−29	29	0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties	−1 218	358	40	−820
Retrocession to external parties	−377	−17	51	−343
Net unpaid claims and claim adjustment expenses; life and health benefits	−1 595	341	91	−1 163
Claims and claim adjustment expenses; life and health benefits	−10 301	−8 963	−595	−19 859

Acquisition costs

For the year ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Acquisition costs, thereof:				
Gross acquisition costs with external parties	−4 530	−2 095	−107	−6 732
Intra-group transactions (assumed and ceded)		−58	58	0
Acquisition costs before impact of retrocession to external parties	−4 530	−2 153	−49	−6 732
Retrocession to external parties	125	210	15	350
Net acquisition costs	−4 405	−1 943	−34	−6 382

Claims and claim adjustment expenses
For the year ended 31 December

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Claims paid, thereof:				
Gross claims paid to external parties	–10 232	–9 846	–302	–20 380
Intra-group transactions (assumed and ceded)				0
Claims before receivables from retrocession to external parties	–10 232	–9 846	–302	–20 380
Retrocession to external parties	468	1 277	302	2 047
Net claims paid	**–9 764**	**–8 569**	**0**	**–18 333**
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:				
Gross – with external parties	–3 412	–586	61	–3 937
Intra-group transactions (assumed and ceded)				0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties	–3 412	–586	61	–3 937
Retrocession to external parties	4	–56	–59	–111
Net unpaid claims and claim adjustment expenses; life and health benefits	**–3 408**	**–642**	**2**	**–4 048**
Claims and claim adjustment expenses; life and health benefits	**–13 172**	**–9 211**	**2**	**–22 381**

Acquisition costs
For the year ended 31 December

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Acquisition costs, thereof:				
Gross acquisition costs with external parties	–4 374	–2 298	–28	–6 700
Intra-group transactions (assumed and ceded)				0
Acquisition costs before impact of retrocession to external parties	–4 374	–2 298	–28	–6 700
Retrocession to external parties	121	234	54	409
Net acquisition costs	**–4 253**	**–2 064**	**26**	**–6 291**

Reinsurance assets and liabilities

The reinsurance assets and liabilities as of 31 December were as follows:

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Assets					
Reinsurance recoverable on unpaid claims and policy benefits	2 449	1 580	264	–210	4 083
Deferred acquisition costs	2 280	3 465	11		5 756
Liabilities					
Unpaid claims and claim adjustment expenses	39 753	10 288	1 240	–208	51 073
Liabilities for life and health policy benefits		15 431	2 202	–4	17 629
Policyholder account balances		1 566	4 087		5 653

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Assets					
Reinsurance recoverable on unpaid claims and policy benefits	2 541	4 638	6 077	–11	13 245
Deferred acquisition costs	2 146	4 234			6 380
Liabilities					
Unpaid claims and claim adjustment expenses	45 276	12 129	829	–13	58 221
Liabilities for life and health policy benefits		18 230	1 131		19 361
Policyholder account balances		1 574	4 190		5 764

Reinsurance recoverable on unpaid claims and policy benefits

As of 31 December 2016 and 2017, the Group had a reinsurance recoverable of USD 4 083 million and USD 13 245 million, respectively. The concentration of credit risk is regularly monitored and evaluated. The reinsurance programme with Berkshire Hathaway and subsidiaries accounted for 67% and 27% of the Group's reinsurance recoverable as of year-end 2016 and 2017, respectively.

The Group cedes certain re/insurance contracts to affiliated companies within the Swiss Re Group, but outside of the Group (please refer to Note 13).

Reinsurance receivables

Reinsurance receivables as of 31 December were as follows:

USD millions	2016	**2017**
Premium receivables invoiced	1 204	2 296
Receivables invoiced from ceded re/insurance business	103	1 227
Assets arising from the application of the deposit method of accounting and meeting the definition of financing receivables	137	144
Recognised allowance	–35	–31

4 Premiums written

For the years ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Gross premiums written, thereof:					
Direct		45	825		870
Reinsurance	18 173	12 452	172		30 797
Intra-group transactions (assumed)		304		–304	0
Gross premiums written	18 173	12 801	997	–304	31 667
Intra-group transactions (ceded)			–304	304	0
Gross premiums written before retrocession to external parties	18 173	12 801	693		31 667
Retrocession to external parties	–405	–1 342	–205		–1 952
Net premiums written	17 768	11 459	488	0	29 715

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Gross premiums written, thereof:					
Direct		55			55
Reinsurance	16 569	13 258	127		29 954
Intra-group transactions (assumed)					0
Gross premiums written	16 569	13 313	127		30 009
Intra-group transactions (ceded)					0
Gross premiums written before retrocession to external parties	16 569	13 313	127		30 009
Retrocession to external parties	–538	–1 487	–121		–2 146
Net premiums written	**16 031**	**11 826**	**6**	**0**	**27 863**

5 Unpaid claims and claim adjustment expenses

A reconciliation of the opening and closing reserve balances for non-life unpaid claims and claim adjustment expenses for the years ended 31 December is presented as follows:

USD millions	2016	2017
Balance as of 1 January	49 718	51 073
Reinsurance recoverable	−3 202	−2 837
Deferred expense on retroactive reinsurance	−340	−211
Net balance as of 1 January prior to effect of change in group structure	46 176	48 025
Effect of change in group structure	0	−281
Net balance as of 1 January	46 176	**47 744**
Incurred related to:		
Current year	21 622	22 824
Prior year	−842	−813
Amortisation of deferred expense on retroactive reinsurance and impact of commutations	−26	−5
Total incurred	20 754	**22 006**
Paid related to:		
Current year	−7 265	−5 971
Prior year	−11 433	−12 362
Total paid	−18 698	**−18 333**
Foreign exchange	−1 265	2 496
Effect of acquisitions, disposals, new retroactive reinsurance and other items	1 058	51
Net balance as of period end	48 025	**53 964**
Reinsurance recoverable	2 837	4 017
Deferred expense on retroactive reinsurance	211	240
Balance as of period end	51 073	**58 221**

Prior-year development

Non-life claims development during 2017 on prior years continued to be driven by favourable experience on most lines of business. Property was mainly driven by positive claims development across the most recent accident years. Casualty includes adverse development on motor. Within specialty, the main reserve releases came from marine and engineering business lines, partially offset with adverse credit and surety experience.

For life and health lines of business, claims development on prior-year business was driven by adverse claim experience across a number of lines of business and geographies. In particular, the UK critical illness and US life portfolios strengthened reserves following adverse trends. This was partially offset by positive experience in Continental Europe, in particular in German disability and life portfolios. Claims development related to prior years also includes an element of interest accretion for unpaid claims reported at the estimated present value.

A summary of prior-year claims development by lines of business for the years ended 31 December is shown below:

USD millions	2016	**2017**
Line of business:		
Property	–231	–588
Casualty	–370	–187
Specialty	–362	–234
Life and health	121	196
Total	–842	**–813**

US asbestos and environmental claims exposure

The Group's obligation for claims payments and claims settlement charges also includes obligations for long-latent injury claims arising out of policies written prior to 1986 as well as out of such business acquired subsequently through reinsurance arrangements to other Swiss Re Group Companies, in particular in the area of US asbestos and environmental liability.

At the end of 2017, the business unit Reinsurance carried net reserves for US asbestos and environmental liabilities equal to USD 1 620 million. During 2017, the business unit incurred net losses of USD 42 million and paid net against these liabilities of USD 180 million.

Estimating ultimate asbestos and environmental liabilities is particularly complex for a number of reasons, relating in part to the long period between exposure and manifestation of claims and in part to other factors, which include risks and lack of predictability inherent in complex litigation, changes in projected costs to resolve and in the projected number of asbestos and environmental claims, the effect of bankruptcy protection, insolvencies and changes in the legal, legislative and regulatory environment. As a result, the Group believes that projection of exposures for asbestos and environmental claims is subject to far less predictability relative to non-environmental and non-asbestos exposures. Management believes that its reserves for asbestos and environmental claims are appropriately established based upon known facts and the current state of the law. However, reserves are subject to revision as new information becomes available and as claims develop. Additional liabilities may arise for amounts in excess of reserves, and the Group's estimate of claims and claim adjustment expenses may change. Any such additional liabilities or increases in estimates cannot be reasonably estimated in advance but could result in charges that could be material to operating results.

Short duration contract unpaid claims and claim adjustment expenses

Basis of presentation for claims development information

This section of the note provides claims development information on an accident year basis.

Claims development information and information on reserves for claims relating to insured events that have occurred but have not yet been reported or not enough reported ("IBNR") are generally presented by line of business for individually significant categories. Starting from a line of business split, additional aggregation or disaggregation is provided where appropriate, necessary and practicable ("disaggregation categories"). For instance, Reinsurance liability and motor lines of business are further disaggregated into proportional and non-proportional treaty types to provide more specific information on claims development, whereas specialty is shown as one distinct category.

In the Property & Casualty Reinsurance segment, all contracts that transfer significant insurance risk are included in scope to the extent they can be allocated to a disaggregation category. For many reinsurance contracts, proportional contracts in particular, ceding companies do not report losses by accident year. In these cases, the Group has allocated reported losses by underwriting year to accident year to produce the accident year tables. Similarly, IBNR is calculated on an underwriting year basis and then the liabilities are allocated to accident year.

In the Life & Health Reinsurance segment, contracts classified as short duration include group life business, certain types of disability and long-term care contracts, group accident, health coverage including critical illness and medical expenses. The Group provides claims development information for Life & Health Reinsurance where reported accident year information is available and there is potential for claims development. This primarily applies to the Group's disability lines classified as short duration. This business is generally considered to have relatively higher claims estimation uncertainty than other life and health lines such as group life, due to longer claims development periods.

Amounts shown in the claims development tables are net of external retrocession and retrocession between business segments to the extent a retrocession program can be allocated to a disaggregation category. Ceded retroactive reinsurance is not included in the claims development table if it cannot be allocated on a reasonable basis to the disaggregation categories used to present claims development information.

Claims development information and information on IBNR reserves are shown on a nominal basis, also for cases where the Group discounts claims liabilities for measurement under US GAAP. Information is shown per accident year and by reporting period.

For Property & Casualty Reinsurance and for Life & Health Reinsurance long-tail, the Group discloses data for ten accident years and reporting periods.

The current reporting period estimate of net claims liabilities for accident years older than the number of years shown in the claims development tables is presented as a total after disclosure of cumulative paid claims.

The information presented in claims development tables is presented at current balance sheet foreign exchange rates as of the date of these financial statements to permit an analysis of claims development excluding the impact of foreign exchange movements.

Some of the information provided in the following tables, is Required Supplementary Information (RSI) under US GAAP. Therefore it does not form part of these consolidated audited financial statements. Claims development information for all periods except the current reporting period and any information derived from it – including average annual percentage payout of claims incurred – is considered RSI and is identified as RSI in the tables presented.

Methodology for determining the presented amounts of liabilities for IBNR claims
The liability for unpaid claims and claim adjustment expenses is based on an estimate of the ultimate cost of settling the claims based on both information reported to us by ceding companies and internal estimates.

Non-life re/insurance contracts
For reinsurance business, cedents report their case reserves and their estimated IBNR to the Group. The Group develops and recognises its own estimate of IBNR claims, which includes circumstances in which the cedent has not reported any claims to the Group or where the Group's estimate of reserves needed to cover reported claims differs from the amounts reported by cedents. Reserving for insurance business is performed similarly, except that the Group estimates case reserves as well. Reserving is done on portfolio or contract level depending on the features of the contract:

For business reviewed on a portfolio level, the expected ultimate losses are set for most lines and types of business based on analysis performed using standard actuarial techniques. In general, contracts are aggregated into portfolios by combining contracts with similar features.

In most cases, these standard actuarial techniques encompass a number of loss development factor techniques applied to claim tables of paid and reported losses. Other actuarial techniques may be applicable to specific categories. For instance, the analysis of frequency and severity could be applied in all disaggregation categories. Life contingency techniques for projecting regular payments related to bodily injury claims are applied to motor proportional, motor non-proportional, liability proportional, liability non-proportional and accident and health. In some cases, techniques specific to the projection of future payments for specific risks such as asbestos or pollution claims are applied to both proportional and non-proportional liability claims (see also separate section "US asbestos and environmental claims exposure" on page 36).

Contract-level reserving is based on standard actuarial techniques but requires more detailed contract, pricing, claim and exposure information than required for the business reviewed on a portfolio level.

In addition, the following applies to all non-life re/insurance business:

- For the most recent underwriting years, reliance may be made on the Group´s costing and underwriting functions for the initial estimates of claims, although the initial reserving estimates may differ from these pricing estimates if there is good reason to believe losses are likely to emerge higher or lower, and in light of the limited claims experience to date. Reviews of those initial estimates are performed regularly, forming a basis for adjustments on both the current and prior underwriting years.

- The reserving process considers any information available in respect of either a specific case or a large loss event and the impact of any unusual features in the technical accounting of information provided by cedents.

Life and health re/insurance contracts
For the Life & Health Reinsurance long tail business, the liability for IBNR claims includes provision for "not yet reported claims" expected to have been incurred in respect of both already processed and not yet processed reinsurance accounts and generally includes provisions for the cost of claims on disability contracts that currently are within their deferred period. The IBNR reserving calculations have been made using appropriate techniques, such as chain ladder and/or Bornhuetter-Ferguson approaches, depending upon the level of detail available and the assumed level of development of the claim. For certain lines of business, IBNR claims reserves include reported but not admitted claims, allowing for expected rates of decline for these claims.

Claims frequency information
Claims frequency information is not available for the disaggregation categories of Property & Casualty Reinsurance, as cedents do not report claims frequency information to the Group for most of the assumed reinsurance contract types. These contracts are to be found in all disaggregation categories presented.

Life & Health Reinsurance reports claims frequency information based on individual incidence. The number of reported claims is the actual number of claims booked. For Group income protection business, claims with multiple payments in a year are counted as one claim with the corresponding amount annualised. Claims that are reported but not admitted are included in the claim count.

Property & Casualty Reinsurance – Property

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**	**thereof IBNR**
2008	*2 715*	*2 286*	*2 150*	*2 068*	*2 065*	*2 087*	*2 078*	*2 078*	*2 076*	2 073	16
2009		*2 427*	*2 442*	*2 320*	*2 276*	*2 255*	*2 252*	*2 250*	*2 252*	2 220	4
2010			*2 639*	*2 575*	*2 446*	*2 472*	*2 562*	*2 606*	*2 720*	2 692	–70
2011				*4 433*	*4 497*	*4 313*	*4 377*	*4 329*	*4 325*	4 344	122
2012					*2 772*	*2 600*	*2 396*	*2 352*	*2 322*	2 307	–3
2013						*3 269*	*3 281*	*3 100*	*3 012*	2 988	4
2014							*2 831*	*2 666*	*2 483*	2 448	11
2015								*2 940*	*2 870*	2 697	112
2016	*RSI*								*4 055*	3 773	378
2017										6 166	3 387
Total										**31 708**	**3 961**

Cumulative claims paid and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year									
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**
2008	*600*	*1 433*	*1 751*	*1 877*	*2 007*	*2 041*	*2 056*	*2 062*	*2 063*	2 071
2009		*583*	*1 666*	*1 996*	*2 103*	*2 154*	*2 177*	*2 187*	*2 198*	2 180
2010			*409*	*1 576*	*1 890*	*2 006*	*2 216*	*2 375*	*2 526*	2 572
2011				*688*	*2 465*	*3 297*	*3 756*	*4 056*	*4 164*	4 289
2012					*251*	*1 640*	*2 043*	*2 167*	*2 211*	2 231
2013						*562*	*2 085*	*2 613*	*2 815*	2 877
2014							*481*	*1 770*	*2 168*	2 300
2015								*483*	*1 717*	2 257
2016	*RSI*								*659*	2 295
2017										1 017
Total										**24 089**
All liabilities before 2008										153
Liabilities for claims and claim adjustment expenses, net of reinsurance										**7 772**

Average annual percentage payout of incurred claims by age, net of reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Property (RSI)	*18.7%*	*47.4%*	*16.6%*	*6.2%*	*4.5%*	*2.4%*	*2.4%*	*0.8%*	*–0.4%*	*0.4%*

The liability for unpaid claims and claim adjustment expenses for property in Property & Casualty Reinsurance shows positive development on most recent accident years. Claims in accident year 2011 were at a high level due to several large natural catastrophes including the earthquake and tsunami in Japan, the earthquakes in Christchurch, New Zealand, and floods in Thailand. The 2017 claims incurred are higher due to natural catastrophes, mainly stemming from cyclone Debbie, hurricanes Harvey, Irma and Maria in the Americas, the two earthquakes in Mexico and the wildfires in California.

Negative IBNRs can be a feature for claims arising from property exposure, due to overstated case reserves. The IBNR reserves for 2010 and 2011 are affected by allocations of IBNR for proportional treaty business in respect of several natural catastrophe events that occurred in those years.

Property & Casualty Reinsurance – Liability, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**	**thereof IBNR**
2008	*1 140*	*1 164*	*1 234*	*1 306*	*1 196*	*1 094*	*1 156*	*1 155*	*1 172*	1 162	55
2009		*730*	*865*	*989*	*945*	*941*	*920*	*932*	*942*	936	60
2010			*843*	*991*	*931*	*910*	*907*	*910*	*899*	863	105
2011				*648*	*706*	*729*	*676*	*635*	*631*	608	103
2012					*529*	*612*	*568*	*539*	*511*	513	98
2013						*738*	*762*	*769*	*764*	768	173
2014							*1 007*	*997*	*1 010*	993	386
2015								*1 279*	*1 327*	1 411	736
2016	*RSI*								*1 730*	1 759	1 097
2017										1 983	1 569
Total										**10 996**	**4 382**

Cumulative claims paid and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year									
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**
2008	*56*	*175*	*323*	*490*	*577*	*696*	*806*	*925*	*979*	1 021
2009		*–66*	*85*	*239*	*364*	*479*	*588*	*639*	*686*	722
2010			*29*	*161*	*321*	*413*	*523*	*618*	*668*	688
2011				*2*	*110*	*184*	*254*	*340*	*386*	403
2012					*13*	*119*	*186*	*246*	*300*	332
2013						*14*	*130*	*238*	*353*	423
2014							*24*	*162*	*298*	404
2015								*35*	*214*	404
2016	*RSI*								*48*	227
2017										51
Total										**4 675**
All liabilities before 2008										606
Liabilities for claims and claim adjustment expenses, net of reinsurance										**6 927**

Average annual percentage payout of incurred claims by age, net of reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Liability, proportional (RSI)	*1.6%*	*14.7%*	*14.3%*	*12.5%*	*11.1%*	*9.3%*	*5.9%*	*5.9%*	*4.2%*	*3.6%*

The increase in the incurred losses for accident years 2013 to 2017 is driven by volume increases of business being written. The increases in the incurred losses in reporting year 2017 for accident years 2015 and 2016 are driven by US business.

In line with the Group's policy, cash flows under loss portfolio transfers are reported through claims paid. For longer-tailed lines and depending on the business volume written, timing of cash flows can lead to net inward payments across the whole portfolio in the first development year of the contract for some accident years.

Property & Casualty Reinsurance – Liability, non-proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**	**thereof IBNR**
2008	*697*	*739*	*685*	*557*	*512*	*478*	*446*	*420*	*398*	390	55
2009		*521*	*532*	*440*	*438*	*399*	*365*	*339*	*325*	323	34
2010			*536*	*449*	*412*	*386*	*364*	*343*	*334*	320	49
2011				*412*	*441*	*479*	*439*	*394*	*361*	347	64
2012					*337*	*355*	*315*	*287*	*265*	258	72
2013						*417*	*398*	*362*	*306*	276	112
2014							*442*	*447*	*414*	370	200
2015								*1 843*	*1 884*	1 852	260
2016	*RSI*								*597*	560	298
2017										502	424
Total										**5 198**	**1 568**

Cumulative claims paid and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year									
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**
2008	*–9*	*27*	*100*	*130*	*165*	*192*	*234*	*254*	*283*	297
2009		*–14*	*12*	*33*	*56*	*96*	*161*	*184*	*192*	202
2010			*1*	*11*	*36*	*53*	*88*	*106*	*125*	161
2011				*1*	*10*	*66*	*114*	*140*	*148*	172
2012					*–4*	*11*	*35*	*53*	*85*	108
2013						*–2*	*11*	*37*	*60*	83
2014							*–2*	*8*	*40*	74
2015								*0*	*94*	203
2016	*RSI*								*14*	158
2017										–2
Total										**1 456**
All liabilities before 2008										5 768
Liabilities for claims and claim adjustment expenses, net of reinsurance										**9 510**

Average annual percentage payout of incurred claims by age, net of reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Liability, non-proportional (RSI)	*–0.7%*	*7.4%*	*10.3%*	*8.4%*	*10.1%*	*8.8%*	*7.7%*	*6.3%*	*5.3%*	*3.6%*

The increase in incurred losses for accident year 2015 compared to other years is due to an increase in volume of business written. Liabilities before 2008 include reserves for historic US Asbestos and Environmental losses.

In line with the Group's policy, cash flows under loss portfolio transfers are reported through claims paid. For longer-tailed lines and depending on the business volume written, timing of cash flows can lead to net inward payments across the whole portfolio in the first development year of the contract for some accident years.

Property & Casualty Reinsurance – Accident & Health

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**	**thereof IBNR**
2008	*385*	*423*	*412*	*423*	*432*	*421*	*419*	*418*	*423*	425	88
2009		*352*	*375*	*352*	*346*	*342*	*333*	*328*	*320*	315	26
2010			*276*	*228*	*234*	*222*	*219*	*221*	*213*	208	28
2011				*231*	*252*	*247*	*239*	*242*	*236*	236	32
2012					*334*	*344*	*328*	*319*	*315*	309	34
2013						*352*	*358*	*345*	*334*	327	52
2014							*306*	*340*	*331*	320	77
2015								*439*	*437*	414	91
2016	*RSI*								*597*	631	149
2017										737	277
Total										**3 922**	**854**

Cumulative claims paid and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year									
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**
2008	*51*	*160*	*214*	*254*	*271*	*281*	*290*	*297*	*302*	306
2009		*32*	*138*	*194*	*219*	*237*	*250*	*256*	*261*	266
2010			*25*	*85*	*116*	*131*	*140*	*147*	*150*	158
2011				*48*	*121*	*143*	*154*	*163*	*167*	177
2012					*81*	*184*	*211*	*227*	*237*	246
2013						*55*	*143*	*184*	*208*	221
2014							*30*	*105*	*147*	175
2015								*63*	*140*	193
2016	*RSI*								*75*	180
2017										96
Total										**2 018**
All liabilities before 2008										2 896
Liabilities for claims and claim adjustment expenses, net of reinsurance										**4 800**

Average annual percentage payout of incurred claims by age, net of reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Accident & Health (RSI)	*14.7%*	*26.4%*	*12.7%*	*7.2%*	*4.2%*	*2.9%*	*2.4%*	*2.4%*	*1.4%*	*0.9%*

The increase in incurred losses from accident year 2015 onwards is due to an increase in the volume of workers' compensation written on a proportional basis. The 2008 and prior accident years include the run-off of business written by entities acquired as part of the acquisition of General Electric Insurance Solutions during 2006. This business which generally had a longer payment pattern was not renewed.

Property & Casualty Reinsurance – Motor, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year									
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**	**thereof IBNR**
2008	*787*	*669*	*667*	*744*	*776*	*750*	*741*	*738*	*738*	737	33
2009		*685*	*679*	*747*	*772*	*759*	*755*	*757*	*755*	754	-15
2010			*621*	*682*	*723*	*729*	*727*	*729*	*729*	727	-2
2011				*1 046*	*1 041*	*1 010*	*966*	*968*	*967*	965	-21
2012					*1 565*	*1 555*	*1 537*	*1 525*	*1 515*	1 513	37
2013						*1 625*	*1 598*	*1 604*	*1 577*	1 570	19
2014							*2 088*	*2 048*	*2 048*	2 030	1
2015								*1 989*	*1 992*	1 996	60
2016	*RSI*								*2 580*	2 698	205
2017										2 453	1 202
Total										**15 443**	**1 519**

Cumulative claims paid and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year									
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**
2008	*340*	*586*	*667*	*639*	*651*	*649*	*670*	*673*	*676*	678
2009		*149*	*405*	*615*	*650*	*662*	*716*	*726*	*727*	731
2010			*208*	*475*	*562*	*599*	*681*	*691*	*700*	704
2011				*278*	*702*	*893*	*927*	*946*	*956*	964
2012					*500*	*1 164*	*1 332*	*1 383*	*1 416*	1 437
2013						*599*	*1 224*	*1 414*	*1 461*	1 492
2014							*773*	*1 536*	*1 793*	1 872
2015								*826*	*1 495*	1 748
2016	*RSI*								*853*	1 889
2017										785
Total										**12 300**
All liabilities before 2008										321
Liabilities for claims and claim adjustment expenses, net of reinsurance										**3 464**

Average annual percentage payout of incurred claims by age, net of reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Motor, proportional (RSI)	*33.8%*	*37.9%*	*14.9%*	*2.8%*	*3.4%*	*2.1%*	*1.6%*	*0.4%*	*0.5%*	*0.3%*

The increase in the incurred losses from accident year 2010 onwards is driven by new business volume across all regions. Proportional motor business includes both longer-tailed liability business and shorter-tailed hull business. The increase in incurred claims and claim adjustment expenses in reporting year 2017 for accident year 2016 is due to US business.

The negative IBNRs are due to overstated case reserves, mainly on the German business, and accident year 2011 includes the effects of an outwards proportional contract in inwards non-proportional business.

Property & Casualty Reinsurance – Motor, non-proportional
Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**	**thereof IBNR**
2008	*425*	*497*	*438*	*335*	*350*	*348*	*341*	*337*	*331*	329	54
2009		*389*	*405*	*295*	*297*	*282*	*287*	*281*	*278*	270	71
2010			*336*	*300*	*294*	*280*	*273*	*265*	*256*	252	38
2011				*424*	*465*	*444*	*442*	*427*	*420*	409	96
2012					*346*	*364*	*342*	*326*	*326*	309	66
2013						*451*	*474*	*475*	*457*	443	79
2014							*423*	*457*	*452*	451	123
2015								*400*	*423*	459	170
2016	*RSI*								*485*	605	276
2017										599	388
Total										**4 126**	**1 361**

Cumulative claims paid and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year									
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**
2008	*16*	*90*	*129*	*133*	*156*	*174*	*186*	*196*	*206*	210
2009		*2*	*41*	*60*	*72*	*86*	*100*	*111*	*121*	126
2010			*6*	*23*	*49*	*68*	*85*	*102*	*115*	123
2011				*–11*	*21*	*58*	*82*	*106*	*121*	137
2012					*2*	*25*	*50*	*86*	*112*	139
2013						*7*	*88*	*154*	*200*	225
2014							*4*	*62*	*107*	147
2015								*–1*	*34*	94
2016	*RSI*								*9*	67
2017										9
Total										**1 277**
All liabilities before 2008										2 978
Liabilities for claims and claim adjustment expenses, net of reinsurance										**5 827**

Average annual percentage payout of incurred claims by age, net of reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Motor, non-proportional (RSI)	*1.1%*	*11.9%*	*10.5%*	*7.1%*	*6.5%*	*6.0%*	*4.2%*	*3.3%*	*2.4%*	*1.2%*

Claims development in non-proportional motor business is considered long-tailed as it is dominated by liability exposures leading to bodily injury claims which pay out for the lifetime of the claimant.

For accident year 2011, negative claims paid in the first year are due to the commutation of an external retrocession on acquired retroactive business. The increase in claims incurred in reporting year 2017 for accident years 2015 and 2016 are due to an adverse development on the US business and to the Ogden discount changes on the UK business. These developments also affected accident year 2017.

In line with the Group's policy, cash flows under loss portfolio transfers are reported through claims paid. For longer-tailed lines and depending on the business volume written, timing of cash flows can lead to net inward payments across the whole portfolio in the first development year of the contract for some accident years.

Property & Casualty Reinsurance – Specialty

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**	**thereof IBNR**
2008	*2 141*	*2 136*	*2 063*	*2 019*	*1 970*	*1 936*	*1 916*	*1 925*	*1 910*	1 899	14
2009		*1 586*	*1 717*	*1 522*	*1 451*	*1 420*	*1 396*	*1 381*	*1 364*	1 337	3
2010			*1 258*	*1 268*	*1 213*	*1 188*	*1 168*	*1 136*	*1 114*	1 115	21
2011				*1 319*	*1 297*	*1 213*	*1 130*	*1 178*	*1 174*	1 189	28
2012					*985*	*1 047*	*1 066*	*1 048*	*1 047*	1 033	36
2013						*1 128*	*1 054*	*1 012*	*975*	964	48
2014							*1 141*	*1 135*	*1 031*	1 003	91
2015								*1 265*	*1 255*	1 241	195
2016	*RSI*								*1 325*	1 313	457
2017										1 648	1 063
Total										**12 742**	**1 956**

Cumulative claims paid and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year									
Accident year	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017**
2008	*259*	*847*	*1 356*	*1 508*	*1 623*	*1 690*	*1 734*	*1 763*	*1 792*	1 809
2009		*214*	*676*	*932*	*1 036*	*1 112*	*1 171*	*1 210*	*1 235*	1 248
2010			*201*	*479*	*675*	*778*	*857*	*973*	*995*	1 014
2011				*169*	*573*	*796*	*900*	*952*	*989*	1 054
2012					*131*	*456*	*697*	*790*	*848*	891
2013						*153*	*431*	*619*	*732*	788
2014							*182*	*423*	*610*	710
2015								*140*	*399*	712
2016	*RSI*								*148*	491
2017										185
Total										**8 902**
All liabilities before 2008										678
Liabilities for claims and claim adjustment expenses, net of reinsurance										**4 518**

Average annual percentage payout of incurred claims by age, net of reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Specialty (RSI)	*14.2%*	*28.4%*	*21.1%*	*9.2%*	*5.8%*	*5.1%*	*3.2%*	*1.7%*	*1.2%*	*0.9%*

This category includes credit and surety business, which was adversely affected by the financial crisis in 2007–2008. The category also contains several individual large losses on marine, aviation and space lines, including the Costa Concordia event in accident year 2012. The 2017 claims are higher due to natural catastrophes mainly stemming from hurricanes Harvey, Irma and Maria in the Americas.

Life & Health Reinsurance, long tail

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions Accident year	Reporting year 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	thereof IBNR	Cumulative number of reported claims (in nominals)
2008	98	96	95	95	98	111	114	111	118	116	14	3 139
2009		164	170	161	162	162	187	185	187	180	18	4 203
2010			203	205	200	226	226	239	211	207	20	4 599
2011				232	243	307	320	335	311	305	36	6 389
2012					288	385	388	414	376	379	44	8 759
2013						519	509	507	469	467	44	11 076
2014							508	462	440	442	58	12 386
2015								433	469	452	107	14 254
2016	RSI								454	471	202	9 779
2017										463	364	4 144
Total										**3 482**	**907**	**78 728**

Cumulative claims paid and allocated claim adjustment expenses, net of reinsurance

USD millions Accident year	Reporting year 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
2008	5	23	41	53	62	70	74	78	83	86
2009		8	39	60	74	83	91	98	106	113
2010			9	43	67	87	101	113	123	132
2011				20	66	107	133	155	177	194
2012					29	93	149	190	225	249
2013						40	130	198	262	306
2014							34	115	211	277
2015								38	113	201
2016	RSI								14	92
2017										13
Total										**1 663**
All liabilities before 2008										273
Liabilities for claims and claim adjustment expenses, net of reinsurance										**2 092**

Average annual percentage payout of incurred claims by age, net of reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Life & Health Reinsurance, long tail (RSI)	5.8%	16.9%	15.3%	10.8%	7.6%	6.1%	4.4%	4.1%	4.1%	2.6%

In the reporting year 2013, the Group significantly strengthened IBNR claims liabilities in Australia for some lines of business. In addition, for 2009, 2013 and 2014 the effect of business volume increases is discernible as well.

Reconciliation of gross liability for unpaid claims and claim adjustment expenses
The following table reconciles the Group's net outstanding liabilities to the gross liabilities for unpaid claims and claim adjustment expenses.

The net outstanding liabilities correspond to the total liabilities for unpaid claims and claim adjustment expenses, net of reinsurance for each disaggregation category.

Other short duration contract lines includes reserves for business that is not material to the Group and where accident year information is not available. For Life & Health Reinsurance, in certain markets, cedents do not provide sufficient information to reinsurers to split claims incurred and claims paid by accident year. This is based on existing market practice. For these markets, an assessment of available information from other sources was made along with investigating approximations that could be used to provide claims development information by accident year. However, these alternate sources and estimates, based on currently available data and methods, could not be used to generate meaningful and representative accident year information and therefore have been excluded from disclosure. Other short duration contract lines also contain other treaties from Property & Casualty Reinsurance which could not be allocated on a consistent basis to disaggregation categories or specific accident years.

Unallocated reinsurance recoverable on unpaid claims includes reinsurance recoverables which cannot be allocated on a reasonable basis to disaggregation categories used to present claims development information.

For details on consolidation please refer to Note 2.

For the year ended 31 December

USD millions	2017
Net outstanding liabilities	
Property & Casualty Reinsurance	
Property	7 772
Liability, proportional	6 927
Liability, non-proportional	9 510
Accident & Health	4 800
Motor, proportional	3 464
Motor, non-proportional	5 827
Specialty	4 518
Life & Health Reinsurance, long tail	2 092
Total net undiscounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	44 910
Discounting impact on (Life & Health Reinsurance) short duration contracts	–291
Impact of acquisition accounting	–511
Total net discounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	44 108
Other short duration contract lines	1 832
Unallocated reinsurance recoverable on unpaid claims	–411
Total net discounted outstanding short duration liabilities	**45 529**
Allocated reinsurance recoverables on unpaid claims:	
Property & Casualty Reinsurance	
Property	596
Liability, proportional	373
Liability, non-proportional	337
Accident & Health	238
Motor, proportional	83
Motor, non-proportional	248
Specialty	214
Impact of acquisition accounting	–118
Other short duration contract lines	192
Unallocated reinsurance recoverable on unpaid claims	411
Total short duration reinsurance recoverable on outstanding liabilities	**2 574**
Exclusions:	
Unallocated claim adjustment expenses	696
Long duration contracts	9 422
Total other reconciling items	**10 118**
Total unpaid claims and claim adjustment expenses	**58 221**

Discounting information

The following disclosure covers the discounting impact for the disaggregation categories included in the claims development information. Discounting information for Life & Health Reinsurance long tail as of 31 December was as follows:

USD millions	2016	2017
Carrying amount of discounted claims	1 117	1 262
Aggregate amount of the discount	–241	–291
Interest accretion[1]	27	28
Range of interest rates	3.1% –3.6%	2.9% –3.6%

[1]Interest accretion is shown as part of "Life and health benefits" in the income statement.

Please refer to Note 1 for more details about the Group's discounting approach for unpaid claims and claim adjustment expenses.

6 Deferred acquisition costs (DAC) and acquired present value of future profits (PVFP)

As of 31 December, the DAC were as follows:

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Opening balance as of 1 January	2 051	3 020	13	5 084
Deferred	4 629	893	34	5 556
Amortisation	–4 379	–312	–36	–4 727
Effect of foreign currency translation	–21	–136		–157
Closing balance	2 280	3 465	11	5 756

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Opening balance as of 1 January	2 280	3 465	11	5 756
Change in group structure[1]			–11	–11
Deferred	4 068	1 294		5 362
Effect of acquisitions/disposals and retrocessions		–5		–5
Amortisation	–4 255	–508		–4 763
Effect of foreign currency translation and other changes	53	–12		41
Closing balance	**2 146**	**4 234**	**0**	**6 380**

[1] In January 2017, the Group sold three primary life and health insurance carriers to the Swiss Re Life Capital Group.

Retroceded DAC may arise on retrocession of reinsurance portfolios, including reinsurance undertaken as part of a securitisation. The associated potential retrocession recoveries are determined by the nature of the retrocession agreements and by the terms of the securitisation.

As of 31 December, the PVFP was as follows:

			2016			**2017**
USD millions	Life & Health Reinsurance	Other	Total	Life & Health Reinsurance	Other	Total
Opening balance as of 1 January	1 134	587	1 721	966	577	1 543
Effect of acquisitions/disposals and retrocessions			0		–562	–562
Amortisation	–132	–45	–177	–135	3	–132
Interest accrued on unamortised PVFP	36	34	70	52	–1	51
Effect of change in unrealised gains/losses		1	1		–1	–1
Effect of foreign currency translation	–72		–72	38		38
Closing balance	966	577	1 543	**921**	**16**	**937**

Retroceded PVFP may arise on retrocession of reinsurance portfolios, including reinsurance undertaken as part of a securitisation. The associated potential retrocession recoveries are determined by the nature of the retrocession agreements and by the terms of the securitisation.

The percentage of PVFP which is expected to be amortised in each of the next five years is 14%, 13%, 12%, 11% and 11%.

7 Investments

Investment income

Net investment income by source (excluding unit-linked business) was as follows:

USD millions	2016	2017
Fixed income securities	1 886	1 887
Equity securities	70	63
Policy loans, mortgages and other loans	188	127
Investment real estate	184	201
Short-term investments	42	53
Other current investments	69	49
Share in earnings of equity-accounted investees	30	53
Cash and cash equivalents	21	18
Net result from deposit-accounted contracts	113	121
Deposits with ceding companies	452	372
Gross investment income	3 055	**2 944**
Investment expenses	–318	–331
Interest charged for funds held	–9	–387
Net investment income – non-participating business	2 728	**2 226**

Dividends received from investments accounted for using the equity method were USD 118 million and USD 119 million for 2016 and 2017, respectively.

Share in earnings of equity-accounted investees included an impairment of the carrying amount of an equity-accounted investee of USD 5 million for 2017.

Realised gains and losses

Realised gains and losses for fixed income securities, equity securities and other investments (excluding unit-linked business) were as follows:

USD millions	2016	2017
Fixed income securities available-for-sale:		
Gross realised gains	590	552
Gross realised losses	–161	–133
Equity securities available-for-sale:		
Gross realised gains	292	623
Gross realised losses	–96	–23
Other-than-temporary impairments	–71	–28
Net realised investment gains/losses on trading securities	121	29
Change in net unrealised investment gains/losses on trading securities	–14	3
Net realised/unrealised gains/losses on other investments	32	76
Net realised/unrealised gains/losses on insurance-related activities	22	76
Foreign exchange gains/losses	877	–194
Net realised investment gains/losses – non-participating business	1 592	**981**

Net realised/unrealised gains/losses on insurance-related activities included impairments of USD 11 million for 2017.

Investment result – unit-linked business

The net investment result on unit-linked business credited to policyholders amounted to gains of USD 15 million and USD 81 million for 2016 and 2017, respectively, mainly originating from gains/losses on equity securities.

Impairment on fixed income securities related to credit losses

Other-than-temporary impairments for debt securities are bifurcated between credit and non-credit components, with the credit component recognised through earnings and the non-credit component recognised in other comprehensive income. The credit component of other-than-temporary impairments is defined as the difference between a security's amortised cost basis and the present value of expected cash flows. Methodologies for measuring the credit component of impairment are aligned to market observer forecasts of credit performance drivers. Management believes that these forecasts are representative of median market expectations.

For securitised products, cash flow projection analysis is conducted by integrating forward-looking evaluation of collateral performance drivers, including default rates, prepayment rates and loss severities and deal-level features, such as credit enhancement and prioritisation among tranches for payments of principal and interest. Analytics are differentiated by asset class, product type and security-level differences in historical and expected performance. For corporate bonds and hybrid debt instruments, an expected loss approach based on default probabilities and loss severities expected in the current and forecasted economic environment is used for securities identified as credit-impaired to project probability-weighted cash flows. Expected cash flows resulting from these analyses are discounted, and the present value is compared to the amortised cost basis to determine the credit component of other-than-temporary impairments.

A reconciliation of other-than-temporary impairments related to credit losses recognised in earnings was as follows:

USD millions	2016	**2017**
Balance as of 1 January	129	94
Credit losses for which an other-than-temporary impairment was not previously recognised	12	6
Reductions for securities sold during the period	–44	–17
Increase of credit losses for which an other-than-temporary impairment has been recognised previously, when the Group does not intend to sell, or more likely than not will not be required to sell before recovery	7	4
Impact of increase in cash flows expected to be collected	–6	–3
Impact of foreign exchange movements	–4	3
Balance as of 31 December	94	**87**

Investments available-for-sale

Amortised cost or cost, estimated fair values and other-than-temporary impairments of fixed income securities classified as available-for-sale as of 31 December were as follows:

2016 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Other-than-temporary impairments recognised in other comprehensive income	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	11 409	381	–183		11 607
US Agency securitised products	3 298	21	–52		3 267
States of the United States and political subdivisions of the states	993	48	–14		1 027
United Kingdom	3 815	662	–77		4 400
Canada	3 729	515	–24		4 220
Germany	2 849	324	–15		3 158
France	1 804	240	–10		2 034
Australia	1 905	18	–4		1 919
Other	5 607	202	–89		5 720
Total	35 409	2 411	–468		37 352
Corporate debt securities	21 130	938	–158		21 910
Mortgage- and asset-backed securities	3 951	68	–26	–5	3 988
Fixed income securities available-for-sale	60 490	3 417	–652	–5	63 250
Equity securities available-for-sale	2 063	276	–81		2 258

2017 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Other-than-temporary impairments recognised in other comprehensive income	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	11 182	168	–147		11 203
US Agency securitised products	5 796	18	–66		5 748
States of the United States and political subdivisions of the states	1 213	91	–5		1 299
United Kingdom	4 034	758	–18		4 774
Canada	3 630	539	–28		4 141
Germany	2 956	222	–21		3 157
France	1 784	196	–10		1 970
Australia	1 925	16	–3		1 938
Other	6 695	227	–68		6 854
Total	39 215	2 235	–366		41 084
Corporate debt securities	23 060	1 175	–112		24 123
Mortgage- and asset-backed securities	3 419	76	–18	–2	3 475
Fixed income securities available-for-sale	**65 694**	**3 486**	**–496**	**–2**	**68 682**
Equity securities available-for-sale	**2 993**	**75**	**–47**		**3 021**

The "Other-than-temporary impairments recognised in other comprehensive income" column includes only securities with a credit-related loss recognised in earnings. Subsequent recovery in fair value of securities previously impaired in other comprehensive income is also presented in the "Other-than-temporary impairments recognised in other comprehensive income" column.

Investments trading

The carrying amounts of fixed income securities and equity securities classified as trading (excluding unit-linked business) as of 31 December were as follows:

USD millions	2016	2017
Debt securities issued by governments and government agencies	2 538	2 414
Corporate debt securities	45	38
Mortgage- and asset-backed securities	112	86
Fixed income securities trading – non-participating business	2 695	**2 538**
Equity securities trading – non-participating business	60	**3**

Investments held for unit-linked business

The carrying amounts of investments held for unit-linked business consist of equity securities trading. As of 31 December 2016 and 2017, these amounted to USD 548 million and USD 585 million, respectively.

Maturity of fixed income securities available-for-sale

The amortised cost or cost and estimated fair values of investments in fixed income securities available-for-sale by remaining maturity are shown below. Fixed maturity investments are assumed not to be called for redemption prior to the stated maturity date. As of 31 December 2016 and 2017, USD 11 913 million and USD 14 954 million, respectively, of fixed income securities available-for-sale were callable.

		2016		2017
USD millions	Amortised cost or cost	Estimated fair value	Amortised cost or cost	Estimated fair value
Due in one year or less	4 879	4 920	5 916	5 918
Due after one year through five years	14 951	15 223	22 063	22 155
Due after five years through ten years	14 009	14 448	11 152	11 427
Due after ten years	23 020	24 994	23 466	26 027
Mortgage- and asset-backed securities with no fixed maturity	3 631	3 665	3 097	3 155
Total fixed income securities available-for-sale	60 490	63 250	**65 694**	**68 682**

Assets pledged

As of 31 December 2017, investments with a carrying value of USD 6 588 million were on deposit with regulatory agencies in accordance with local requirements, and investments with a carrying value of USD 10 893 million were placed on deposit or pledged to secure certain reinsurance liabilities, including pledged investments in subsidiaries.

As of 31 December 2016 and 2017, securities of USD 13 491 million and USD 13 767 million, respectively, were transferred to third parties under securities lending transactions and repurchase agreements on a fully collateralised basis. Corresponding liabilities of USD 1 010 million and USD 989 million, respectively, were recognised in accrued expenses and other liabilities for the obligation to return collateral that the Group has the right to sell or repledge.

As of 31 December 2017, a real estate portfolio with a carrying value of USD 192 million serves as collateral for a credit facility, allowing the Group to withdraw funds up to CHF 500 million.

Collateral accepted which the Group has the right to sell or repledge

As of 31 December 2016 and 2017, the fair value of the equity securities, government and corporate debt securities received as collateral was USD 11 453 million and USD 9 443 million, respectively. Of this, the amount that was sold or repledged as of 31 December 2016 and 2017 was USD 7 255 million and USD 3 947 million, respectively. The sources of the collateral are securities borrowing, reverse repurchase agreements and derivative transactions.

Offsetting of derivatives, financial assets and financial liabilities

Offsetting of derivatives, financial assets and financial liabilities as of 31 December was as follows:

2016 USD millions	Gross amounts of recognised financial assets	Collateral set-off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – assets	2 640	–1 580	1 060		1 060
Reverse repurchase agreements	7 023	–3 986	3 037	–3 037	0
Securities borrowing	483	–314	169	–169	0
Total	10 146	–5 880	4 266	–3 206	1 060

2016 USD millions	Gross amounts of recognised financial liabilities	Collateral set-off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – liabilities	–2 348	1 568	–780	8	–772
Repurchase agreements	–3 991	3 461	–530	527	–3
Securities lending	–1 319	839	–480	454	–26
Total	–7 658	5 868	–1 790	989	–801

2017 USD millions	Gross amounts of recognised financial assets	Collateral set-off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – assets	1 797	–1 176	621	–18	**603**
Reverse repurchase agreements	5 956	–2 995	2 961	–2 961	**0**
Securities borrowing	1 589	–524	1 065	–1 065	**0**
Total	**9 342**	**–4 695**	**4 647**	**–4 044**	**603**

2017 USD millions	Gross amounts of recognised financial liabilities	Collateral set-off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – liabilities	–1 858	1 342	–516	48	**–468**
Repurchase agreements	–2 631	2 471	–160	160	**0**
Securities lending	–1 878	1 049	–829	765	**–64**
Total	**–6 367**	**4 862**	**–1 505**	**973**	**–532**

Collateral pledged or received between two counterparties with a master netting arrangement in place, but not subject to balance sheet netting, is disclosed at fair value. The fair values represent the gross carrying value amounts at the reporting date for each financial instrument received or pledged by the Group. Management believes that master netting agreements provide for legally enforceable set-off in the event of default, which substantially reduces credit exposure. Upon occurrence of an event of default, the non-defaulting party may set off the obligation against collateral received regardless if it has been offset on balance sheet prior to the defaulting event. The net amounts of the financial assets and liabilities presented on the balance sheet were recognised in "Other invested assets" and "Accrued expenses and other liabilities".

Recognised gross liability for the obligation to return collateral that the Group has the right to sell or repledge

As of 31 December 2016 and 2017, the gross amounts of liabilities related to repurchase agreements and securities lending by the class of securities transferred to third parties and by the remaining maturity are shown below. The liabilities are recognised for the obligation to return collateral that the Group has the right to sell or repledge.

2016 USD millions	Remaining contractual maturity of the agreements Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	Total
Repurchase agreements					
Debt securities issued by governments and government agencies	219	3 023	415	334	3 991
Total repurchase agreements	219	3 023	415	334	3 991
Securities lending					
Debt securities issued by governments and government agencies	237	367	258	426	1 288
Corporate debt securities	13				13
Equity securities	18				18
Total securities lending	268	367	258	426	1 319
Gross amount of recognised liabilities for repurchase agreements and securities lending					5 310

2017 USD millions	Remaining contractual maturity of the agreements Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	Total
Repurchase agreements					
Debt securities issued by governments and government agencies	31	2 091	354	139	2 615
Corporate debt securities		16			16
Total repurchase agreements	**31**	**2 107**	**354**	**139**	**2 631**
Securities lending					
Debt securities issued by governments and government agencies	244	567	614	442	1 867
Corporate debt securities	6				6
Equity securities	5				5
Total securities lending	**255**	**567**	**614**	**442**	**1 878**
Gross amount of recognised liabilities for repurchase agreements and securities lending					4 509

The programme is structured in a conservative manner within a clearly defined risk framework. Yield enhancement is conducted on a non-cash basis, thereby taking no re-investment risk.

Unrealised losses on securities available-for-sale

The following table shows the fair value and unrealised losses of the Group's fixed income securities, aggregated by investment category and length of time that individual securities were in a continuous unrealised loss position as of 31 December 2016 and 2017. As of 31 December 2016 and 2017, USD 44 million and USD 37 million, respectively, of the gross unrealised loss on equity securities available-for-sale relates to declines in value for less than 12 months and USD 37 million and USD 10 million, respectively, to declines in value for more than 12 months.

2016 USD millions	Less than 12 months Fair value	Less than 12 months Unrealised losses	12 months or more Fair value	12 months or more Unrealised losses	Total Fair value	Total Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	5 570	183			5 570	183
US Agency securitised products	2 490	52	14	0	2 504	52
States of the United States and political subdivisions of the states	332	12	8	2	340	14
United Kingdom	1 331	67	56	10	1 387	77
Canada	1 637	22	6	2	1 643	24
Germany	1 321	15	100	0	1 421	15
France	703	10			703	10
Australia	442	2	123	2	565	4
Other	2 509	73	236	16	2 745	89
Total	16 335	436	543	32	16 878	468
Corporate debt securities	5 773	134	316	24	6 089	158
Mortgage- and asset-backed securities	1 391	21	170	10	1 561	31
Total	23 499	591	1 029	66	24 528	657

2017 USD millions	Less than 12 months Fair value	Less than 12 months Unrealised losses	12 months or more Fair value	12 months or more Unrealised losses	Total Fair value	Total Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	7 402	114	1 368	33	8 770	147
US Agency securitised products	3 753	37	993	29	4 746	66
States of the United States and political subdivisions of the states	259	4	39	1	298	5
United Kingdom	535	9	258	9	793	18
Canada	1 749	27	262	1	2 011	28
Germany	685	18	44	3	729	21
France	209	8	7	2	216	10
Australia	1 013	3	57	0	1 070	3
Other	2 687	52	319	16	3 006	68
Total	18 292	272	3 347	94	21 639	366
Corporate debt securities	5 390	83	860	29	6 250	112
Mortgage- and asset-backed securities	1 429	13	394	7	1 823	20
Total	**25 111**	**368**	**4 601**	**130**	**29 712**	**498**

Mortgages, loans and real estate

As of 31 December, the carrying and respective fair values of investments in mortgages, policy and other loans and real estate (excluding unit-linked business) were as follows:

		2016		2017
USD millions	Carrying value	Fair value	Carrying value	Fair value
Policy loans	86	86	86	86
Mortgage loans	1 947	1 950	1 526	1 529
Other loans	2 585	2 596	784	794
Investment real estate	1 711	3 362	2 017	3 895

Depreciation expense related to income-producing properties was USD 42 million and USD 49 million for 2016 and 2017, respectively. Accumulated depreciation on investment real estate totalled USD 525 million and USD 585 million as of 31 December 2016 and 2017, respectively.

Substantially all mortgages, policy loans and other loan receivables are secured by buildings, land or the underlying policies.

8 Fair value disclosures

Fair value, as defined by the Fair Value Measurements and Disclosures Topic, is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The Fair Value Measurements and Disclosures Topic requires all assets and liabilities that are measured at fair value to be categorised within the fair value hierarchy. This three-level hierarchy is based on the observability of the inputs used in the fair value measurement. The levels of the fair value hierarchy are defined as follows:

Level 1 inputs are quoted prices in active markets for identical assets or liabilities that the Group has the ability to access. Level 1 inputs are the most persuasive evidence of fair value and are to be used whenever possible.

Level 2 inputs are market-based inputs that are directly or indirectly observable, but not considered level 1 quoted prices. Level 2 inputs consist of (i) quoted prices for similar assets or liabilities in active markets; (ii) quoted prices for identical assets or liabilities in non-active markets (eg markets which have few transactions and where prices are not current or price quotations vary substantially); (iii) inputs other than quoted prices that are observable (eg interest rates, yield curves, volatilities, prepayment speeds, credit risks and default rates); and (iv) inputs derived from, or corroborated by, observable market data.

Level 3 inputs are unobservable inputs. These inputs reflect the Group's own assumptions about market pricing using the best internal and external information available.

The types of instruments valued, based on unadjusted quoted market prices in active markets, include most US government and sovereign obligations, active listed equities and most money market securities. Such instruments are generally classified within level 1 of the fair value hierarchy.

The types of instruments that trade in markets that are not considered to be active, but are valued based on quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency, include most government agency securities, investment-grade corporate bonds, certain mortgage- and asset-backed products, less liquid listed equities, and state, municipal and provincial obligations. Such instruments are generally classified within level 2 of the fair value hierarchy.

Exchange-traded derivative instruments typically fall within level 1 or level 2 of the fair value hierarchy, depending on whether they are considered to be actively traded or not.

Certain financial instruments are classified within level 3 of the fair value hierarchy because they trade infrequently and therefore have little or no price transparency. Such instruments include private equity, less liquid corporate debt securities and certain asset-backed securities. Certain over-the-counter (OTC) derivatives trade in less liquid markets with limited pricing information, and the determination of fair value for these derivatives is inherently more difficult. Such instruments are classified within level 3 of the fair value hierarchy. Pursuant to the election of the fair value option, the Group classifies certain liabilities for life and health policy benefits in level 3 of the fair value hierarchy. When appropriate, valuations are adjusted for various factors such as liquidity, bid/offer spreads, and credit considerations. Such adjustments are generally based on available market evidence. In the absence of such evidence, management's best estimate is used.

The fair values of assets are adjusted to incorporate the counterparty risk of non-performance. Similarly, the fair values of liabilities reflect the risk of non-performance of the Group, captured by the Group's credit spread. These valuation adjustments from assets and liabilities measured at fair value using significant unobservable inputs are recognised in net realised gains and losses. For 2017, these adjustments were not material. Whenever the underlying assets or liabilities are reported in a specific business segment, the valuation adjustment is allocated accordingly. Valuation adjustments not attributable to any business segment are reported in Other.

In certain situations, the Group uses inputs to measure the fair value of asset or liability positions that fall into different levels of the fair value hierarchy. In these situations, the Group will determine the appropriate level based on the lowest level input that is significant to the determination of the fair value.

Valuation techniques

US government securities typically have quoted market prices in active markets and are categorised as level 1 instruments in the fair value hierarchy. Non-US government holdings are generally classified as level 2 instruments and are valued on the basis of the quotes provided by pricing services, which are subject to the Group's pricing validation reviews and pricing vendor challenge process. Valuations provided by pricing vendors are generally based on the actual trade information as substantially all of the Group's non-US government holdings are traded in a transparent and liquid market.

Corporate debt securities mainly include US and European investment-grade positions, which are priced on the basis of quotes provided by third-party pricing vendors and first utilise valuation inputs from actively traded securities, such as bid prices, bid spreads to Treasury securities, Treasury curves, and same or comparable issuer curves and spreads. Issuer spreads are determined from actual quotes and traded prices and incorporate considerations of credit/default, sector composition, and liquidity and call features. Where market data is not available, valuations are developed based on the modelling techniques that utilise observable inputs and option-adjusted spreads and incorporate considerations of the security's seniority, maturity and the issuer's corporate structure.

Values of mortgage- and asset-backed securities are obtained both from third-party pricing vendors and through quoted prices, some of which may be based on the prices of comparable securities with similar structural and collateral features. Values of certain asset-backed securities (ABS) for which there are no significant observable inputs are developed using benchmarks to similar transactions or indices. For both residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS), cash flows are derived based on the transaction-specific information, which incorporates priority in the capital structure, and are generally adjusted to reflect benchmark yields, market prepayment data, collateral performance (default rates and loss severity) for specific vintage and geography, credit enhancements and ratings. For certain RMBS and CMBS with low levels of market liquidity, judgements may be required to determine comparable securities based on the loan type and deal-specific performance. CMBS terms may also incorporate lock-out periods that restrict borrowers from prepaying the loans or provide disincentives to prepay and therefore reduce prepayment risk of these securities, compared to RMBS. The factors specifically considered in valuation of CMBS include borrower-specific statistics in a specific region, such as debt service coverage and loan-to-value ratios, as well as the type of commercial property. Mortgage- and asset-backed securities also includes debt securitised by credit card, student loan and auto loan receivables. Pricing inputs for these securities also focus on capturing, where relevant, collateral quality and performance, payment patterns and delinquencies.

The Group uses third-party pricing vendor data to value agency securitised products, which mainly include collateralised mortgage obligations (CMO) and mortgage-backed government agency securities. The valuations generally utilise observable inputs consistent with those noted above for RMBS and CMBS.

Equity securities held by the Group for proprietary investment purposes are mainly classified in level 1. Securities classified in level 1 are traded on public stock exchanges for which quoted prices are readily available.

The category "Other invested assets" includes the Group's private equity and hedge fund investments which are made directly or via ownership of funds. Valuation of direct private equity investments requires significant management judgement due to the absence of quoted market prices and the lack of liquidity. Initial valuation is based on the acquisition cost, and is further refined based on the available market information for the public companies that are considered comparable to the Group's holdings in the private companies being valued, and the private company-specific performance indicators, both historic and projected. Subsequent valuations also reflect business or asset appraisals, as well as market transaction data for private and public benchmark companies and the actual companies being valued, such as financing rounds and mergers and acquisitions activity. The Group's holdings in private equity and hedge funds are generally valued utilising net asset values (NAV), subject to adjustments, as deemed necessary, for restrictions on redemption (lock-up periods and amount limitations on redemptions). These investments are included under investments measured at net asset value as a practical expedient.

The Group holds both exchange-traded and OTC interest rate, foreign exchange and equity derivative contracts for hedging and trading purposes. The fair values of exchange-traded derivatives measured using observable exchange prices are classified in level 1. Long-dated contracts may require adjustments to the exchange-traded prices which would trigger reclassification to level 2 in the fair value hierarchy. OTC derivatives are generally valued by the Group based on the internal models, which are consistent with industry standards and practices, and use both observable (dealer, broker or market consensus prices, spot and forward rates, interest rate and credit curves and volatility indices) and unobservable inputs (adjustments for liquidity, inputs derived from the observable data based on the Group's judgements and assumptions).

The Group's OTC interest rate derivatives primarily include interest rate swaps, futures, options, caps and floors, and are valued based on the cash flow discounting models which generally utilise as inputs observable market yield curves and volatility assumptions.

The Group's OTC foreign exchange derivatives primarily include forward, spot and option contracts and are generally valued based on the cash flow discounting models, utilising as main inputs observable foreign exchange forward curves.

The Group's investments in equity derivatives primarily include OTC equity option contracts on single or baskets of market indices and equity options on individual or baskets of equity securities, which are valued using internally developed models (such as the Black-Scholes type option pricing model and various simulation models) calibrated with the inputs, which include underlying spot prices, dividend curves, volatility surfaces, yield curves and correlations between underlying assets.

The Group's OTC credit derivatives can include index and single-name credit default swaps, as well as more complex structured credit derivatives. Plain vanilla credit derivatives, such as index and single-name credit default swaps, are valued by the Group based on the models consistent with the industry valuation standards for these credit contracts, and primarily utilise observable inputs published by market data sources, such as credit spreads and recovery rates. These valuation techniques warrant classification of plain vanilla OTC derivatives as level 2 financial instruments in the fair value hierarchy.

Governance around level 3 fair valuation

The Asset Valuation Committee, endorsed by the Swiss Re Group Executive Committee, has a primary responsibility for governing and overseeing all of Group's asset and derivative valuation policies and operating parameters (including level 3 measurements). The Asset Valuation Committee delegates the responsibility for implementation and oversight of consistent application of the Group's pricing and valuation policies to the Pricing and Valuation Committee.

The Pricing and Valuation Committee, which is a joint Risk Management & Finance management control committee, is responsible for the implementation and consistent application of the pricing and valuation policies. Key functions of the Pricing and Valuation Committee include: oversight over the entire valuation process, approval of internal valuation methodologies, approval of external pricing vendors, monitoring of the independent price verification (IPV) process and resolution of significant or complex valuation issues.

A formal IPV process is undertaken monthly by members of the Valuation Risk Management team within a Financial Risk Management function. The process includes monitoring and in-depth analyses of approved pricing methodologies and valuations of the Group's financial instruments aimed at identifying and resolving pricing discrepancies.

The Risk Management function is responsible for independent validation and ongoing review of the Group's valuation models. The Product Control group within Finance is tasked with reporting of fair values through the vendor- and model-based valuations, the results of which are also subject to the IPV process.

Assets and liabilities measured at fair value on a recurring basis

As of 31 December, the fair values of assets and liabilities measured on a recurring basis by level of input were as follows:

2016 USD millions	Quoted prices in active markets for identical assets and liabilities (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Impact of netting[1]	Investments measured at net asset value as practical expedient	Total
Assets						
Fixed income securities held for proprietary investment purposes	11 332	54 265	348			65 945
Debt securities issued by US government and government agencies	11 332	1 542				12 874
US Agency securitised products		3 307				3 307
Debt securities issued by non-US governments and government agencies		23 709				23 709
Corporate debt securities		21 614	341			21 955
Mortgage- and asset-backed securities		4 093	7			4 100
Equity securities held for proprietary investment purposes	2 317		1			2 318
Equity securities backing unit-linked business	548					548
Short-term investments held for proprietary investment purposes	3 742	3 785				7 527
Derivative financial instruments	18	2 163	459	–1 580		1 060
Interest rate contracts	14	964				978
Foreign exchange contracts		766				766
Equity contracts	4	433	341			778
Other contracts			118			118
Other invested assets	266	183	160		727	1 336
Funds held by ceding companies		225				225
Total assets at fair value	18 223	60 621	968	–1 580	727	78 959
Liabilities						
Derivative financial instruments	–3	–1 905	–440	1 568		–780
Interest rate contracts	–3	–685				–688
Foreign exchange contracts		–651				–651
Equity contracts		–569	–39			–608
Other contracts			–401			–401
Liabilities for life and health policy benefits			–144			–144
Accrued expenses and other liabilities	–384	–4 084	–1 236			–5 704
Total liabilities at fair value	–387	–5 989	–1 820	1 568		–6 628

[1] The netting of derivative receivables and derivative payables is permitted when a legally enforceable master netting agreement exists between two counterparties. A master netting agreement provides for the net settlement of all contracts, as well as cash collateral, through a single payment, in a single currency, in the event of default or on the termination of any one contract.

2017 USD millions	Quoted prices in active markets for identical assets and liabilities (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Impact of netting[1]	Investments measured at net asset value as practical expedient	Total
Assets						
Fixed income securities held for proprietary investment purposes	10 820	60 039	361			71 220
Debt securities issued by US government and government agencies	10 820	1 847				12 667
US Agency securitised products		5 877				5 877
Debt securities issued by non-US governments and government agencies		24 954				24 954
Corporate debt securities		23 807	354			24 161
Mortgage- and asset-backed securities		3 554	7			3 561
Equity securities held for proprietary investment purposes	3 024					3 024
Equity securities backing unit-linked business	585					585
Short-term investments held for proprietary investment purposes	699	1 975				2 674
Derivative financial instruments	47	1 363	387	–1 176		621
Interest rate contracts	4	534	5			543
Foreign exchange contracts		337				337
Equity contracts	43	478	283			804
Credit contracts		14				14
Other contracts			99			99
Other invested assets	765	12	171		607	1 555
Funds held by ceding companies		206				206
Total assets at fair value	**15 940**	**63 595**	**919**	**–1 176**	**607**	**79 885**
Liabilities						
Derivative financial instruments	–20	–1 569	–269	1 342		–516
Interest rate contracts	–2	–419				–421
Foreign exchange contracts		–436				–436
Equity contracts	–18	–635	–31			–684
Credit contracts		–79				–79
Other contracts			–238			–238
Liabilities for life and health policy benefits			–126			–126
Funds held under reinsurance treaties	–91	–1 712				–1 803
Accrued expenses and other liabilities	–939	–1 785				–2 724
Total liabilities at fair value	**–1 050**	**–5 066**	**–395**	**1 342**		**–5 169**

[1] The netting of derivative receivables and derivative payables is permitted when a legally enforceable master netting agreement exists between two counterparties. A master netting agreement provides for the net settlement of all contracts, as well as cash collateral, through a single payment, in a single currency, in the event of default or on the termination of any one contract.

Assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (level 3)

As of 31 December, the reconciliation of the fair values of assets and liabilities measured on a recurring basis using significant unobservable inputs were as follows:

2016 USD millions	Fixed income securities	Equity securities	Derivative assets	Other invested assets	Total assets	Derivative liabilities	Liabilities for life and health policy benefits	Accrued expenses and other liabilities	Total liabilities
Assets and liabilities									
Balance as of 1 January	338	11	464	1 013	1 826	–497	–165	–1 474	–2 136
Impact of Accounting Standards Updates[1]				–895	–895				0
Realised/unrealised gains/losses:									
Included in net income	3		18	–18	3	199	20		219
Included in other comprehensive income	–5		1	6	2				0
Purchases	115		5	42	162				0
Issuances					0	–81			–81
Sales	–36		–20	–2	–58	20			20
Settlements	–55		–15		–70	–76			–76
Transfers into level 3[2]			6	10	16	–5			–5
Transfers out of level 3[2]	–6	–10			–16				0
Impact of foreign exchange movements	–6			4	–2		1	238	239
Closing balance as of 31 December	348	1	459	160	968	–440	–144	–1 236	–1 820

[1] Impact of ASU 2015-07. Please refer to Note 1 of the 2016 Annual Report.
[2] Transfers are recognised at the date of the event or change in circumstances that caused the transfer.

2017 USD millions	Fixed income securities	Equity securities	Derivative assets	Other invested assets	**Total assets**	Derivative liabilities	Liabilities for life and health policy benefits	Accrued expenses and other liabilities	**Total liabilities**
Assets and liabilities									
Balance as of 1 January	348	1	459	160	**968**	–440	–144	–1 236	**–1 820**
Realised/unrealised gains/losses:									
Included in net income	1		–23		**–22**	216	19		**235**
Included in other comprehensive income	–4			16	**12**				**0**
Purchases	92		32		**124**				**0**
Issuances					**0**	–38			**–38**
Sales	–7		–2		**–9**	2			**2**
Settlements	–81		–79	–6	**–166**	–9		1 286	**1 277**
Transfers into level 3[1]	1				**1**				**0**
Transfers out of level 3[1]		–1			**–1**				**0**
Impact of foreign exchange movements	11			1	**12**		–1	–50	**–51**
Closing balance as of 31 December	**361**	**0**	**387**	**171**	**919**	**–269**	**–126**	**0**	**–395**

[1] Transfers are recognised at the date of the event or change in circumstances that caused the transfer.

Gains and losses on assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (level 3)

The gains and losses relating to the assets and liabilities measured at fair value using significant unobservable inputs (level 3) for the years ended 31 December were as follows:

USD millions	2016	**2017**
Gains/losses included in net income for the period	222	213
Whereof change in unrealised gains/losses relating to assets and liabilities still held at the reporting date	88	161

Quantitative information about level 3 fair value measurements

Unobservable inputs for major level 3 assets and liabilities as of 31 December were as follows:

USD millions	2016 Fair value	2017 Fair value	Valuation technique	Unobservable input	Range (weighted average)
Assets					
Corporate debt securities	341	**354**			
Infrastructure loans	116	215	Discounted Cash Flow Model	Valuation spread	73 bps–232 bps (151 bps)
Private placement corporate debt	177	91	Corporate Spread Matrix	Credit spread	37 bps–246 bps (124 bps)
Private placement credit tenant leases	48	46	Discounted Cash Flow Model	Illiquidity premium	75 bps–175 bps (133 bps)
Derivative equity contracts	341	**283**			
OTC equity option referencing correlated equity indices	341	283	Proprietary Option Model	Correlation	–45%–100% (27.5%)[1]
Liabilities					
Derivative equity contracts	–39	**–31**			
OTC equity option referencing correlated equity indices	–39	–31	Proprietary Option Model	Correlation	–45%–100% (27.5%)[1]
Other derivative contracts and liabilities for life and health policy benefits	–545	**–364**			
Variable annuity and fair valued GMDB contracts	–500	–325	Discounted Cash Flow Model	Risk margin	4% (n.a.)
				Volatility	4%–42%
				Lapse	0.5%–33%
				Mortality adjustment	–10%–0%
				Withdrawal rate	0%–90%

[1] Represents average input value for the reporting period.

Sensitivity of recurring level 3 measurements to changes in unobservable inputs

The significant unobservable input used in the fair value measurement of the Group's infrastructure loans is valuation spread. A significant increase (decrease) in this input in isolation would result in a significantly lower (higher) fair value measurement. The significant unobservable input used in the fair value measurement of the Group's private placement corporate debt securities is credit spread. A significant increase (decrease) in this input in isolation would result in a significantly lower (higher) fair value measurement. The significant unobservable input used in the fair value measurement of the Group's private placement credit tenant leases is illiquidity premium. A significant increase (decrease) in this input in isolation would result in a significantly lower (higher) fair value measurement.

The significant unobservable input used in the fair value measurement of the Group's OTC equity option referencing correlated equity indices is correlation. Where the Group is long correlation risk, a significant increase (decrease) in this input in isolation would result in a significantly higher (lower) fair value measurement. Where the Group is short correlation risk, a significant increase (decrease) in this input in isolation would result in a significantly lower (higher) fair value measurement.

The significant unobservable inputs used in the fair value measurement of the Group's variable annuity and fair valued guaranteed minimum death benefit (GMDB) contracts are: risk margin, volatility, lapse, mortality adjustment rate and withdrawal rate. A significant increase (decrease) in isolation in each of the following inputs: risk margin, volatility and withdrawal rate would result in a significantly higher (lower) fair value of the Group's obligation. A significant increase (decrease) in isolation in a lapse rate for in-the-money contracts would result in a significantly lower (higher) fair value of the Group's obligation, whereas for out-of-the-money contracts, an isolated increase (decrease) in a lapse assumption would increase (decrease) fair value of the Group's obligation. Changes in the mortality adjustment rate impact the fair value of the Group's obligation differently for living-benefit products, compared to death-benefit products. For the former, a significant increase (decrease) in the mortality adjustment rate (ie increase (decrease) in mortality, respectively) in isolation would result in a decrease (increase) in fair value of the Group's liability. For the latter, a significant increase (decrease) in the mortality adjustment rate in isolation would result in an increase (decrease) in fair value of the Group's liability.

Other invested assets measured at net asset value

Other invested assets measured at net asset value as of 31 December were as follows:

USD millions	2016 Fair value	2017 Fair value	Unfunded commitments	Redemption frequency (if currently eligible)	Redemption notice period
Private equity funds	431	381	82	non-redeemable	n.a.
Hedge funds	106	128		redeemable[1]	45–95 days[2]
Private equity direct	1	1		non-redeemable	n.a.
Real estate funds	189	97	32	non-redeemable	n.a.
Total	727	**607**	**114**		

[1] The redemption frequency varies by position.
[2] Cash distribution can be delayed for an extended period depending on the sale of the underlyings.

The hedge fund investments employ a variety of strategies, including global macro, relative value, event-driven and long/short equity across various asset classes.

The private equity direct portfolio consists of equity and equity-like investments directly in other companies. These investments have no contractual term and are generally held based on financial or strategic intent.

Private equity and real estate funds generally have limitations imposed on the amount of redemptions from the fund during the redemption period due to illiquidity of the underlying investments. Fees may apply for redemptions or transferring of interest to other parties. Distributions are expected to be received from these funds as the underlying assets are liquidated over the life of the fund, which is generally from 10 to 12 years.

The redemption frequency of hedge funds varies depending on the manager as well as the nature of the underlying product. Additionally, certain funds may impose lock-up periods and redemption gates as defined in the terms of the individual investment agreement.

Fair value option

The fair value option under the Financial Instruments Topic permits the choice to measure specified financial assets and liabilities at fair value on an instrument-by-instrument basis. The Group elected the fair value option for positions in the following line items:

Other invested assets

The Group elected the fair value option for certain investments classified as equity method investees within other invested assets in the balance sheet. The Group applied the fair value option, as the investments are managed on a fair value basis. The changes in fair value of these elected investments are recorded in earnings.

Funds held by ceding companies

For operational efficiencies, the Group elected the fair value option for funds held by the cedent under three of its reinsurance agreements. The assets are carried at fair value and changes in fair value are reported as a component of earnings.

Liabilities for life and health policy benefits

The Group elected the fair value option for existing GMDB reserves related to certain variable annuity contracts which are classified as universal-life-type contracts. The Group has applied the fair value option, as the equity risk associated with those contracts is managed on a fair value basis and it is economically hedged with derivative options in the market.

Funds held under reinsurance treaties

For operational efficiencies, the Group elected the fair value option for funds held under reinsurance treaties under some of its reinsurance agreements. The liabilities are carried at fair value and changes in fair value are reported as a component of earnings.

Assets and liabilities measured at fair value pursuant to election of the fair value option

Pursuant to the election of the fair value option for the items described, the balances as of 31 December were as follows:

USD millions	2016	2017
Assets		
Other invested assets	7 217	7 800
of which at fair value pursuant to the fair value option	108	111
Funds held by ceding companies	8 854	12 617
of which at fair value pursuant to the fair value option	225	206
Liabilities		
Liabilities for life and health policy benefits	–17 629	–19 361
of which at fair value pursuant to the fair value option	–144	–126
Funds held under reinsurance treaties		–11 429
of which at fair value pursuant to the fair value option		–1 803

Changes in fair values for items measured at fair value pursuant to election of the fair value option

Gains/losses included in earnings for items measured at fair value pursuant to election of the fair value option including foreign exchange impact for the years ended 31 December were as follows:

USD millions	2016	2017
Other invested assets	–18	2
Funds held by ceding companies	6	
Liabilities for life and health policy benefits	20	19
Funds held under reinsurance treaties		–49
Total	8	**–28**

Fair value changes from other invested assets, funds held by ceding companies and funds held under reinsurance treaties are reported in "Net investment income – non-participating business". Fair value changes from the GMDB reserves are shown in "Life and health benefits".

Assets and liabilities not measured at fair value but for which the fair value is disclosed

Assets and liabilities not measured at fair value but for which the fair value is disclosed as of 31 December were as follows:

2016 USD millions	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets			
Policy loans		86	86
Mortgage loans		1 950	1 950
Other loans		2 596	2 596
Investment real estate		3 362	3 362
Total assets	0	7 994	7 994
Liabilities			
Debt	–6 900	–6 370	–13 270
Total liabilities	–6 900	–6 370	–13 270

2017 USD millions	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets			
Policy loans		86	86
Mortgage loans		1 529	1 529
Other loans		794	794
Investment real estate		3 895	3 895
Total assets	**0**	**6 304**	**6 304**
Liabilities			
Debt	–6 149	–6 825	–12 974
Total liabilities	**–6 149**	**–6 825**	**–12 974**

Policy loans, other loans and certain mortgage loans are classified as level 3 measurements, as they do not have an active exit market. Some of these positions need to be assessed in conjunction with the corresponding insurance business, whilst the fair value of some other positions does not differ materially from the carrying amount. Considering these circumstances for these positions, the Group presents the carrying amount as an approximation for the fair value. For certain commercial mortgage loans and infrastructure loans, which are included in mortgage loans and other loans respectively, the fair value can be estimated using discounted cash flow models which are based on discount curves and spread inputs that require management's judgement.

Investments in real estate are fair valued primarily by external appraisers based on proprietary discounted cash flow models that incorporate applicable risk premium adjustments to discount yields and projected market rental income streams based on market-specific data. These fair value measurements are classified in level 3 in the fair value hierarchy.

Debt positions, which are fair valued based on executable broker quotes or based on the discounted cash flow method using observable inputs, are classified as level 2 measurements. Fair value of the majority of the Group's level 3 debt positions is judged to approximate carrying value due to the highly tailored nature of the obligation and short-notice termination provisions.

9 Derivative financial instruments

The Group uses a variety of derivative financial instruments including swaps, options, forwards, credit derivatives and exchange-traded financial futures in its trading and hedging strategies, in line with the Group's overall risk management strategy. The objectives include managing exposure to price, foreign currency and/or interest rate risk on planned or anticipated investment purchases, existing assets or liabilities, as well as locking in attractive investment conditions for future available funds.

The fair values represent the gross carrying value amounts at the reporting date for each class of derivative contract held or issued by the Group. The gross fair values are not an indication of credit risk, as many over-the-counter transactions are contracted and documented under ISDA master agreements or their equivalent. Management believes that such agreements provide for legally enforceable set-off in the event of default, which substantially reduces credit exposure.

Fair values and notional amounts of derivative financial instruments

As of 31 December, the fair values and notional amounts of the derivatives outstanding were as follows:

2016 USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
Derivatives not designated as hedging instruments				
Interest rate contracts	43 013	978	–688	290
Foreign exchange contracts	19 542	348	–572	–224
Equity contracts	12 333	778	–608	170
Credit contracts				0
Other contracts	15 822	118	–401	–283
Total	90 710	2 222	–2 269	–47
Derivatives designated as hedging instruments				
Foreign exchange contracts	10 019	418	–79	339
Total	10 019	418	–79	339
Total derivative financial instruments	100 729	2 640	–2 348	292
Amount offset				
Where a right of set-off exists		–1 122	1 122	
Due to cash collateral		–458	446	
Total net amount of derivative financial instruments		1 060	–780	280

2017 USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
Derivatives not designated as hedging instruments				
Interest rate contracts	37 655	543	–421	122
Foreign exchange contracts	19 021	227	–152	75
Equity contracts	18 767	804	–684	120
Credit contracts	4 894	14	–79	–65
Other contracts	11 737	99	–238	–139
Total	**92 074**	**1 687**	**–1 574**	**113**
Derivatives designated as hedging instruments				
Foreign exchange contracts	14 426	110	–284	–174
Total	**14 426**	**110**	**–284**	**–174**
Total derivative financial instruments	**106 500**	**1 797**	**–1 858**	**–61**
Amount offset				
Where a right of set-off exists		–801	801	
Due to cash collateral		–375	541	
Total net amount of derivative financial instruments		**621**	**–516**	**105**

The notional amounts of derivative financial instruments give an indication of the Group's volume of derivative activity. The fair value assets are included in "Other invested assets" and the fair value liabilities are included in "Accrued expenses and other liabilities". The fair value amounts that were not offset were nil as of 31 December 2016 and 2017.

Non-hedging activities

The Group primarily uses derivative financial instruments for risk management and trading strategies. Gains and losses of derivative financial instruments not designated as hedging instruments are recorded in "Net realised investment gains/losses — non-participating business" in the income statement. For the years ended 31 December, the gains and losses of derivative financial instruments not designated as hedging instruments were as follows:

USD millions	2016	**2017**
Derivatives not designated as hedging instruments		
Interest rate contracts	–16	56
Foreign exchange contracts	–121	256
Equity contracts	–164	–186
Credit contracts	8	–21
Other contracts	150	251
Total gains/losses recognised in income	–143	**356**

Hedging activities

The Group designates certain derivative financial instruments as hedging instruments. The designation of derivative financial instruments is primarily used for overall portfolio and risk management strategies. As of 31 December 2016 and 2017, the following hedging relationships were outstanding:

Fair value hedges

The Group enters into foreign exchange swaps to reduce the exposure to foreign exchange volatility for certain fixed income securities. These derivative instruments are designated as hedging instruments in qualifying fair value hedges. Gains and losses on derivative financial instruments designated as fair value hedging instruments are recorded in "Net realised investment gains/losses — non-participating business" in the income statement. For the years ended 31 December, the gains and losses attributable to the hedged risks were as follows:

		2016		**2017**
USD millions	Gains/losses on derivatives	Gains/losses on hedged items	Gains/losses on derivatives	Gains/losses on hedged items
Fair value hedging relationships				
Foreign exchange contracts	250	–250	–570	570
Total gains/losses recognised in income	250	–250	**–570**	**570**

Hedges of the net investment in foreign operations

The Group designates derivative and non-derivative monetary financial instruments as hedging the foreign currency exposure of its net investment in certain foreign operations.

For the years ended 31 December 2016 and 2017, the Group recorded an accumulated net unrealised foreign currency remeasurement gain of USD 1 311 million and USD 737 million, respectively, in shareholder's equity. These offset translation gains and losses on the hedged net investment.

Maximum potential loss

In consideration of the rights of set-off and the qualifying master netting arrangements with various counterparties, the maximum potential loss as of 31 December 2016 and 2017 was approximately USD 1 518 million and USD 996 million, respectively. The maximum potential loss is based on the positive market replacement cost assuming non-performance of all counterparties, excluding cash collateral.

Credit risk-related contingent features

Certain derivative instruments held by the Group contain provisions that require its debt to maintain an investment-grade credit rating. If the Group's credit rating were downgraded or no longer rated, the counterparties could request immediate payment, guarantee or an ongoing full overnight collateralisation on derivative instruments in net liability positions.

The total fair value of derivative financial instruments containing credit risk-related contingent features amounted to USD 79 million and USD 66 million as of 31 December 2016 and 2017, respectively. For derivative financial instruments containing credit risk-related contingent features, the Group posted collateral of nil as of 31 December 2016 and 2017, respectively. In the event of a reduction of the Group's credit rating to below investment grade, a fair value of USD 66 million additional collateral would have had to be posted as of 31 December 2017. The total equals the amount needed to settle the instruments immediately as of 31 December 2017.

10 Debt and contingent capital instruments

The Group enters into long- and short-term debt arrangements to obtain funds for general corporate use and specific transaction financing. The Group defines short-term debt as debt having a maturity at the balance sheet date of not greater than one year and long-term debt as having a maturity of greater than one year. For subordinated debt positions, maturity is defined as the first optional redemption date (notwithstanding that optional redemption could be subject to regulatory consent). Interest expense is classified accordingly.

The Group's debt as of 31 December was as follows:

USD millions	2016	2017
Senior financial debt	2 734	2 826
Senior operational debt	420	
Subordinated financial debt	543	
Short-term debt – financial and operational debt	3 697	**2 826**
Senior financial debt	2 249	2 244
Senior operational debt	423	390
Subordinated financial debt	2 884	3 110
Subordinated operational debt	2 249	2 370
Long-term debt – financial and operational debt	7 805	**8 114**
Total carrying value	11 502	**10 940**
Total fair value	13 270	**12 974**

Maturity of long-term debt

As of 31 December, long-term debt as reported above had the following maturities:

USD millions	2016	2017
Due in 2018	0	0
Due in 2019	1 666	1 699
Due in 2020	195	197
Due in 2021	209	213
Due in 2022	771	845
Due after 2022	4 964	5 160
Total carrying value	7 805	**8 114**

Senior long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Book value in USD millions
2019	Senior notes[1]	1999	USD	234	6.45%	245
2022	Senior notes	2012	USD	250	2.88%	249
2024	EMTN	2014	CHF	250	1.00%	255
2026	Senior notes[1]	1996	USD	397	7.00%	486
2027	EMTN	2015	CHF	250	0.75%	257
2030	Senior notes[1]	2000	USD	193	7.75%	262
2042	Senior notes	2012	USD	500	4.25%	490
Various	Payment undertaking agreements	various	USD	338	various	390
Total senior long-term debt as of 31 December 2017						**2 634**
Total senior long-term debt as of 31 December 2016						2 672

[1] Assumed in the acquisition of GE Insurance Solutions.

Subordinated long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	First call in	Book value in USD millions
2024	Subordinated contingent write-off loan note	2013	USD	750	6.38%	2019	778
2042	Subordinated fixed-to-floating rate loan note	2012	EUR	500	6.63%	2022	596
2045	Subordinated contingent write-off securities	2013	CHF	175	7.50%	2020	197
2057	Subordinated private placement (amortising, limited recourse)	2007	GBP	1 751	5.06%		2 370
	Subordinated perpetual loan note	2007	GBP	500	6.30%	2019	676
	Perpetual subordinated fixed-to-floating rate callable loan note	2015	EUR	750	2.60%	2025	863
Total subordinated long-term debt as of 31 December 2017							**5 480**
Total subordinated long-term debt as of 31 December 2016							5 133

Interest expense on long-term debt and contingent capital instruments
Interest expense on long-term debt for the years ended 31 December was as follows:

USD millions	2016	2017
Senior financial debt	100	89
Senior operational debt	10	11
Subordinated financial debt	156	144
Subordinated operational debt	122	114
Total	388	**358**

In addition to the above, interest expense on contingent capital instruments classified as equity was USD 68 million and USD 67 million for the years ended 31 December 2016 and 2017, respectively.

Long-term debt issued in 2017
No long-term debt was issued in the year ended 31 December 2017.

Contingent capital instruments
In March 2012, SRZ issued a perpetual subordinated capital instrument with stock settlement. The instrument has a face value of USD 750 million, with a fixed coupon of 8.25% per annum until the first optional redemption date (1 September 2018).

The instrument may be converted, at the option of the issuer, into Swiss Re Ltd shares at any time through "at market" conversion using the retrospective five-day volume weighted average share price with a 3% discount or within six months following a solvency event at a pre-set floor price of USD 32. The instrument is referred to in these financial statements as "contingent capital instrument".

In February 2012, SRZ issued a contingent capital instrument accounted for as equity with a face value of CHF 320 million and a fixed coupon at a rate of 7.25% per annum. This capital instrument was redeemed on 1 September 2017.

11 Income taxes

The Group is generally subject to corporate income taxes based on the taxable net income in various jurisdictions in which it operates. The components of the income tax expense were:

USD millions	2016	2017
Current taxes	613	457
Deferred taxes	35	–338
Income tax expense	648	**119**

Tax rate reconciliation

The following table reconciles the expected tax expense at the Swiss statutory tax rate to the actual tax expense in the accompanying income statement:

USD millions	2016	2017
Income tax at the Swiss statutory tax rate of 21.0%	807	49
Increase (decrease) in the income tax charge resulting from:		
Foreign income taxed at different rates	125	61
Impact of foreign exchange movements	–27	103
Tax exempt income/dividends received deduction	–24	–48
Non deductible expenses	57	51
Change in valuation allowance	–210	–78
Change in statutory rate	46	–81
Change in liability for unrecognised tax benefits including interest and penalties	–112	9
Other, net[1]	–14	53
Total	648	**119**

[1] Other, net includes tax return to tax provision adjustments from various jurisdictions.

For the year ended 31 December 2017, the Group reported a tax charge of USD 119 million on a pre-tax income of USD 233 million for 2017, compared to a charge of USD 648 million on a pre-tax income of USD 3 845 million for 2016. This translates into an effective tax rate in the current and prior-year reporting periods of 51.1% and 16.9%, respectively.

For the year ended 31 December 2017, the tax rate was largely driven by tax on profits in higher jurisdictions and tax charges from foreign currency translation differences between statutory and US GAAP accounts, partially offset by tax benefits from US tax laws changes. For the year ended 31 December 2016, the lower tax was largely driven by benefits from the effective settlement of tax audits in certain jurisdictions and releases of valuation allowance on net operating losses partially offset by tax on profits earned in higher tax jurisdictions.

At 31 December 2017, the tax rate includes a tax benefit of USD 97 million from US tax reform impact. The impact is included within the change in statutory rate and change in valuation allowance components of the tax rate reconciliation. The benefit arises from revaluing the US deferred tax assets and liabilities to the new US statutory tax rate of 21% (from 35%).

Deferred and other non-current taxes

The components of deferred and other non-current taxes were as follows:

USD millions	2016	2017
Deferred tax assets		
Income accrued/deferred	320	163
Technical provisions	613	454
Pension provisions	340	286
Benefit on loss carryforwards	2 607	1 786
Currency translation adjustments	271	430
Other	1 132	853
Gross deferred tax asset	5 283	3 972
Valuation allowance	–339	–293
Unrecognised tax benefits offsetting benefits on loss carryforwards	–22	–19
Total deferred tax assets	4 922	**3 660**
Deferred tax liabilities		
Present value of future profits	–191	–73
Income accrued/deferred	–546	–425
Bond amortisation	–120	–241
Deferred acquisition costs	–909	–877
Technical provisions	–2 726	–1 409
Unrealised gains on investments	–641	–484
Untaxed realised gains	–250	–152
Foreign exchange provisions	–444	–448
Other	–589	–630
Total deferred tax liabilities	–6 416	**–4 739**
Liability for unrecognised tax benefits including interest and penalties	–215	–196
Total deferred and other non-current tax liabilities	–6 631	**–4 935**
Net deferred and other non-current taxes	–1 709	**–1 275**

As previously noted in the tax rate reconciliation, a tax benefit of USD 97 million arises from revaluing the US deferred tax assets and liabilities to the new US tax rate of 21% (from 35%). Accordingly, the revaluing reduced the US deferred tax assets by USD 1 159 million and the US deferred tax liabilities by USD 1 256 million (net USD 97 million).

As of 31 December 2017, the aggregate amount of temporary differences associated with investment in subsidiaries, branches and associates and interests in joint ventures, for which deferred tax liabilities have not been recognised amount to approximately USD 2.8 billion. 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.

As of 31 December 2017, the Group had USD 8 055 million net operating tax loss carryforwards, expiring as follows: USD 17 million in 2018, USD 47 million in 2019, USD 13 million in 2020, USD 10 million in 2021, USD 7 511 million in 2022 and beyond, and USD 457 million never expire.

As of 31 December 2017, the Group also had capital loss carryforwards of USD 14 million, expiring as follows: USD 4 million in 2020, USD 4 million in 2021 and USD 6 million in 2022.

Net operating tax losses of USD 876 million and net capital tax losses of USD 27 million were utilised during the period ended 31 December 2017.

Income taxes paid in 2016 and 2017 were USD 515 million and USD 507 million, respectively.

Unrecognised tax benefits

A reconciliation of the opening and closing amount of gross unrecognised tax benefits (excluding interest and penalties) is as follows:

USD millions	2016	2017
Balance as of 1 January	331	189
Change in group structure[1]		–3
Additions based on tax positions related to current year	36	20
Additions based on tax positions related to prior years	20	8
Reduction for tax positions of current year		–1
Reductions for tax positions of prior years	–101	–12
Statute expiration	–44	–9
Settlements	–53	–29
Other (including foreign currency translation)		7
Balance as of 31 December	189	**170**

[1] In January 2017, the Group sold three primary life and health insurance carriers to the Swiss Re Life Capital Group.

As of 31 December 2016 and 2017 the amount of gross unrecognised tax benefits within the tabular reconciliation that, if recognised, would affect the effective tax rate were approximately USD 188 million and USD 170 million, respectively.

Interest and penalties related to unrecognised tax benefits are recorded in income tax expense. Such expense in 2017 was nil (USD 23 million in 2016). As of 31 December 2016 and 2017, USD 48 million and USD 45 million, respectively, were accrued for the payment of interest (net of tax benefits) and penalties. The accrued interest balance as of 31 December 2017 is included within the deferred and other non-current taxes section reflected above and in the balance sheet.

The balance of gross unrecognised tax benefits as of 31 December 2017 presented in the table above excludes accrued interest and penalties (USD 45 million).

During the year, certain tax positions and audits in France and Switzerland were effectively settled.

The Group continually evaluates proposed adjustments by taxing authorities. The Group believes that it is reasonably possible (more than remote and less than likely) that the balance of unrecognised tax benefits could increase or decrease over the next 12 months due to settlements or expiration of statutes. However, quantification of an estimated range cannot be made at this time.

The following table summarises jurisdictions and tax years that remain subjects to examination:

Australia	2013–2017
Brazil	2011–2017
Canada	2010–2017
China	2006–2017
Denmark	2011–2017
France	2015–2017
Germany	2008–2017
Hong Kong	2009–2017
India	2006–2017
Ireland	2012–2017
Israel	2009–2017
Italy	2012–2017
Japan	2010–2017

Korea	2014–2017
Luxembourg	2013–2017
Malaysia	2009–2017
Mexico	2012–2017
Netherlands	2013–2017
New Zealand	2012–2017
Singapore	2011–2017
Slovakia	2012–2017
South Africa	2012–2017
Spain	2013–2017
Switzerland	2014–2017
United Kingdom	2008, 2011–2017
United States	2011–2017

12 Benefit plans

Defined benefit pension plans and post-retirement benefits
SRZ is a wholly owned subsidiary of Swiss Re Ltd. Swiss Re Ltd is the ultimate parent company of the Swiss Re Group. SRZ and its subsidiaries sponsor various pension plans, in which the Group and affiliated companies participate. Employers contributions to the plans are charged to income on a basis which recognises the costs of pensions over the expected service lives of employees covered by the plans. The Group's funding policy for these plans is to contribute annually at a rate that is intended to maintain a level percentage of compensation for the employees covered. A full valuation is prepared at least every three years.

The Swiss Re Group also provides certain healthcare and life insurance benefits for retired employees and their dependants. Employees become eligible for these benefits when they become eligible for pension benefits.

The measurement date of these plans is 31 December for each year presented.

2016 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	3 876	1 737	363	5 976
Service cost	113	7	5	125
Interest cost	31	60	10	101
Actuarial gains/losses	71	192	9	272
Benefits paid	–139	–59	–16	–214
Employee contribution	25			25
Effect of settlement, curtailment and termination	1			1
Effect of foreign currency translation	–62	–118	–2	–182
Benefit obligation as of 31 December	3 916	1 819	369	6 104
Fair value of plan assets as of 1 January	3 478	1 724	0	5 202
Actual return on plan assets	128	188		316
Company contribution	95	54	16	165
Benefits paid	–139	–59	–16	–214
Employee contribution	25			25
Effect of settlement, curtailment and termination	1			1
Effect of foreign currency translation	–56	–136		–192
Fair value of plan assets as of 31 December	3 532	1 771	0	5 303
Funded status	–384	–48	–369	–801

2017 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	3 916	1 819	369	6 104
Service cost	111	7	4	122
Interest cost	24	55	9	88
Amendments	–55		–3	–58
Actuarial gains/losses	–57	–2	42	–17
Benefits paid	–185	–60	–17	–262
Employee contribution	26			26
Effect of settlement, curtailment and termination	2	–20		–18
Effect of foreign currency translation	166	125	9	300
Benefit obligation as of 31 December	**3 948**	**1 924**	**413**	**6 285**
Fair value of plan assets as of 1 January	3 532	1 771	0	5 303
Actual return on plan assets	264	132		396
Company contribution	95	59	17	171
Benefits paid	–185	–60	–17	–262
Employee contribution	26			26
Effect of settlement, curtailment and termination	2	–20		–18
Effect of foreign currency translation	153	130		283
Fair value of plan assets as of 31 December	**3 887**	**2 012**	**0**	**5 899**
Funded status	**–61**	**88**	**–413**	**–386**

Amounts recognised in "Other assets" and "Accrued expenses and other liabilities" in the Group's balance sheet as of 31 December were as follows:

2016 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Non-current assets		140		140
Current liabilities		–3	–15	–18
Non-current liabilities	–384	–185	–354	–923
Net amount recognised	–384	–48	–369	–801

2017 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Non-current assets		262		262
Current liabilities		–3	–18	–21
Non-current liabilities	–61	–171	–395	–627
Net amount recognised	**–61**	**88**	**–413**	**–386**

Amounts recognised in accumulated other comprehensive income, gross of tax, as of 31 December were as follows:

2016 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	1 114	345	–30	1 429
Prior service cost/credit	–69	1	–58	–126
Total	1 045	346	–88	1 303

2017 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	805	271	13	1 089
Prior service cost/credit	–115	1		–114
Total	**690**	**272**	**13**	**975**

Components of net periodic benefit cost

The components of pension and post-retirement cost for the years ended 31 December were as follows:

2016 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Service cost (net of participant contributions)	113	7	5	125
Interest cost	31	60	10	101
Expected return on assets	–113	–66		–179
Amortisation of:				
Net gain/loss	76	9	–4	81
Prior service cost	–9		–9	–18
Effect of settlement, curtailment an termination	1			1
Net periodic benefit cost	99	10	2	111

2017 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Service cost (net of participant contributions)	111	7	4	122
Interest cost	24	55	9	88
Expected return on assets	–90	–59		–149
Amortisation of:				
Net gain/loss	77	21	–1	97
Prior service cost	–9			–9
Effect of settlement, curtailment and termination	2		–61	–59
Net periodic benefit cost	**115**	**24**	**–49**	**90**

Other changes in plan assets and benefit obligations recognised in other comprehensive income for the years ended 31 December were as follows:

2016 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	56	70	9	135
Amortisation of:				
Net gain/loss	–76	–9	4	–81
Prior service cost	9		9	18
Effect of settlement, curtailment and termination				
Exchange rate gain/loss recognised during the year		–19		–19
Total recognised in other comprehensive income, gross of tax	–11	42	22	53
Total recognised in net periodic benefit cost and other comprehensive income, gross of tax	88	52	24	164

2017 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	–231	–75	42	–264
Prior service cost/credit	–55		–3	–58
Amortisation of:				
Net gain/loss	–77	–21	1	–97
Prior service cost	9			9
Effect of settlement, curtailment and termination			61	61
Exchange rate gain/loss recognised during the year		22		22
Total recognised in other comprehensive income, gross of tax	**–354**	**–74**	**101**	**–327**
Total recognised in net periodic benefit cost and other comprehensive income, gross of tax	**–239**	**–50**	**52**	**–237**

The Group and affiliated companies' estimated net loss and prior service credit for the defined benefit pension plans that will be amortised from accumulated other comprehensive income into net periodic benefit cost in 2018 are USD 65 million and USD 15 million, respectively. The estimated net gain/loss and prior service cost/credit for the other defined post-retirement benefits that will be amortised from accumulated other comprehensive income into net periodic benefit cost in 2018 are nil.

The Group and affiliated companies' accumulated benefit obligation (the current value of accrued benefits excluding future salary increases) for pension benefits was USD 5 665 million and USD 5 794 million as of 31 December 2016 and 2017, respectively.

Pension plans with an accumulated benefit obligation in excess of plan assets as of 31 December were as follows:

USD millions	2016	**2017**
Projected benefit obligation	4 938	5 068
Accumulated benefit obligation	4 901	5 022
Fair value of plan assets	4 367	4 833

Principal actuarial assumptions

	Swiss plan		Foreign plans weighted average		Other benefits weighted average	
	2016	**2017**	2016	**2017**	2016	**2017**
Assumptions used to determine obligations at the end of the year						
Discount rate	0.6%	0.6%	3.0%	2.8%	2.4%	2.1%
Rate of compensation increase	1.8%	1.8%	2.9%	2.8%	2.1%	2.1%
Assumptions used to determine net periodic pension costs for the year ended						
Discount rate	0.8%	0.6%	3.6%	3.0%	2.7%	2.4%
Expected long-term return on plan assets	3.3%	2.5%	3.9%	3.3%		
Rate of compensation increase	2.0%	1.8%	2.8%	2.9%	2.1%	2.1%
Assumed medical trend rates at year end						
Medical trend – initial rate					5.1%	5.6%
Medical trend – ultimate rate					3.8%	3.8%
Year that the rate reaches the ultimate trend rate					2021	2021

The expected long-term rates of return on plan assets are based on long-term expected inflation, interest rates, risk premiums and targeted asset category allocations. The estimates take into consideration historical asset category returns.

Assumed healthcare cost trend rates have a significant effect on the amounts reported for the healthcare plans. A one percentage point change in assumed healthcare cost trend rates would have had the following effects for 2017:

USD millions	1 percentage point increase	1 percentage point decrease
Effect on total of service and interest cost components	1	0
Effect on post-retirement benefit obligation	29	–25

Plan asset allocation by asset category

The actual asset allocation by major asset category for defined benefit pension plans as of the respective measurement dates in 2016 and 2017 was as follows:

	Swiss plan allocation			Foreign plans allocation		
	2016	**2017**	**Target allocation**	2016	**2017**	**Target allocation**
Asset category						
Equity securities	27%	29%	25%	19%	17%	17%
Debt securities	44%	41%	47%	48%	77%	78%
Real estate	22%	23%	20%	0%	0%	1%
Other	7%	7%	8%	33%	6%	4%
Total	100%	**100%**	**100%**	100%	**100%**	**100%**

Actual asset allocation is determined by a variety of current economic and market conditions and considers specific asset class risks.

Equity securities include Swiss Re common stock of USD 7 million (0.1% of total plan assets) and USD 6 million (0.1% of total plan assets) as of 31 December 2016 and 2017, respectively.

The Group's pension plan investment strategy is to match the maturity profiles of the assets and liabilities in order to reduce the future volatility of pension expense and funding status of the plans. This involves balancing investment portfolios between equity and fixed income securities. Tactical allocation decisions that reflect this strategy are made on a quarterly basis.

Assets measured at fair value

For a description of the different fair value levels and valuation techniques see Note 8 "Fair value disclosures".

Certain items reported as pension plan assets at fair value in the following table are not within the scope of Note 8, namely two positions: real estate and an insurance contract.

Real estate positions classified as level 1 and level 2 are exchange traded real estate funds where a market valuation is readily available. Real estate reported on level 3 is property owned by the pension funds. These positions are accounted for at the capitalised income value. The capitalisation based on sustainable recoverable earnings is conducted at interest rates that are determined individually for each property, based on the property's location, age and condition. If properties are intended for disposal, the estimated selling costs and taxes are recognised in provisions. Sales gains or losses are allocated to income from real estate when the contract is concluded.

The fair value of the insurance contract is based on the fair value of the assets backing the contract.

Other assets classified within level 3 mainly consist of private equity investments valued with the same methodology as mentioned in Note 8.

As of 31 December, the fair values of pension plan assets by level of input were as follows:

2016 USD millions	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Investments measured at net asset value as practical expedient	Total
Assets					
Fixed-income securities:					
Debt securities issued by the US government and government agencies	28	145			173
Debt securities issued by non-US governments and government agencies		314			314
Corporate debt securities		1 792	9		1 801
Residential mortgage-backed securities		26			26
Commercial mortgage-backed securities		4			4
Other asset-backed securities		6			6
Equity securities:					
Equity securities held for proprietary investment purposes	1 004	338	97		1 439
Derivative financial instruments		–6			–6
Real estate			612		612
Other assets		514		328	842
Total assets at fair value	1 032	3 133	718	328	5 211
Cash	94	–2			92
Total plan assets	1 126	3 131	718	328	5 303

2017 USD millions	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Investments measured at net asset value as practical expedient	Total
Assets					
Fixed-income securities:					
Debt securities issued by the US government and government agencies	30	681			711
Debt securities issued by non-US governments and government agencies		735			735
Corporate debt securities		1 546	10		1 556
Residential mortgage-backed securities		23			23
Commercial mortgage-backed securities		1			1
Other asset-backed securities		1			1
Equity securities:					
Equity securities held for proprietary investment purposes	1 141	347	103		1 591
Derivative financial instruments		–38			–38
Real estate			692		692
Other assets		78		450	528
Total assets at fair value	**1 171**	**3 374**	**805**	**450**	**5 800**
Cash	99				99
Total plan assets	**1 270**	**3 374**	**805**	**450**	**5 899**

Assets measured at fair value using significant unobservable inputs (Level 3)

For the years ended 31 December, the reconciliation of fair value of pension plan assets using significant unobservable inputs were as follows:

2016 USD millions	Real estate	Other assets	Total
Balance as of 1 January	596	142	738
Realised/unrealised gains/losses:			
Relating to assets still held at the reporting date	17	–14	3
Relating to assets sold during the period		13	13
Purchases, issuances and settlements	8	21	29
Transfers in and/or out of Level 3		–53	–53
Impact of foreign exchange movements	–9	–3	–12
Closing balance as of 31 December	612	106	718

2017 USD millions	Real estate	Other assets	Total
Balance as of 1 January	612	106	718
Realised/unrealised gains/losses:			
Relating to assets still held at the reporting date	34	–26	8
Relating to assets sold during the period		19	19
Purchases, issuances and settlements	19	11	30
Transfers in and/or out of Level 3			
Impact of foreign exchange movements	27	3	30
Closing balance as of 31 December	**692**	**113**	**805**

Expected contributions and estimated future benefit payments

The employer contributions expected to be made in 2018 to the defined benefit pension plans are USD 112 million and to the post-retirement benefit plan are USD 18 million.

As of 31 December 2017, the projected benefit payments, which reflect expected future service, not adjusted for transfers in and for employees' voluntary contributions, are as follows:

USD millions	Swiss plan	Foreign plans	Other benefits	Total
2018	216	86	18	320
2019	208	91	19	318
2020	205	94	20	319
2021	201	97	20	318
2022	196	99	21	316
Years 2023-2027	932	534	110	1 576

Defined contribution pension plans

The Group sponsors a number of defined contribution plans to which employees and the Group make contributions. The accumulated balances are paid as a lump sum at the earlier of retirement, termination, disability or death. The amount expensed in 2016 and in 2017 was USD 65 million and USD 75 million, respectively.

13 Related parties

The Group assumes and cedes certain re/insurance contracts from/to affiliated companies within the Swiss Re Group, but outside the Group. The Group also conducts various investing activities, including loans, funding agreements and derivatives, with affiliated companies in the Swiss Re Group. The Group enters into various financing activities where it borrows funds from affiliated companies in the Swiss Re Group. In addition, the Group enters into various arrangements with affiliated companies in the Swiss Re Group for the provision of services. These activities result in the following related party transactions on the income statement and balance sheet:

2016 USD millions	Corporate Solutions	Life Capital	Other	Total
Revenues				
Gross premiums written	312	242		554
Net premiums written	149	242		391
Change in unearned premiums	–35			–35
Premiums earned	114	242		356
Net investment income – non-participating business	9	4	10	23
Net realised investment gains/losses – non-participating business	–22	43	–77	–56
Other revenues	10	10	1	21
Total revenues	111	299	–66	344
Expenses				
Claims and claim adjustment expenses	202			202
Life and health benefits		–203		–203
Return credited to policyholders		18		18
Acquisition costs	–20	–1		–21
Operating expenses	61	21	–1 400	–1 318
Interest expenses		3	–101	–98
Total expenses	243	–162	–1 501	–1 420

2017 USD millions	Corporate Solutions	Life Capital	Other	Total
Revenues				
Gross premiums written	283	526		809
Net premiums written	146	263		409
Change in unearned premiums	–5	–67		–72
Premiums earned	141	196		337
Fee income from policyholders		–95		–95
Net investment income/loss – non-participating business	9	–479	6	–464
Net realised investment gains/losses – non-participating business	–2	13	–72	–61
Other revenues	8	22	1	31
Total revenues	**156**	**–343**	**–65**	**–252**
Expenses				
Claims and claim adjustment expenses	184			184
Life and health benefits		–30		–30
Return credited to policyholders		322		322
Acquisition costs	–20	43		23
Operating expenses	60	2	–1 497	–1 435
Interest expenses			–145	–145
Total expenses	**224**	**337**	**–1 642**	**–1 081**

2016 USD millions	Corporate Solutions	Life Capital	Other	Total
Assets				
Policy loans, mortgages and other loans			1 573	1 573
Other invested assets	12	70	4	86
Accrued investment income			4	4
Premiums and other receivables	72	22		94
Reinsurance recoverable on unpaid claims and policy benefits	293			293
Funds held by ceding companies	713			713
Deferred acquisition costs	2			2
Other assets	306	21	13	340
Total assets	1 398	113	1 594	3 105
Liabilities				
Unpaid claims and claim adjustment expenses	3 943	11		3 954
Liabilities for life and health policy benefits		19		19
Unearned premiums	141			141
Funds held under reinsurance treaties	32			32
Reinsurance balances payable	128			128
Short-term debt			2 564	2 564
Accrued expenses and other liabilities	3	232	1 678	1 913
Total liabilities	4 247	262	4 242	8 751

2017 USD millions	Corporate Solutions	Life Capital	Other	Total
Assets				
Policy loans, mortgages and other loans		66	73	139
Other invested assets	28	128	56	212
Premiums and other receivables	194	1 350		1 544
Reinsurance recoverable on unpaid claims and policy benefits	282	9 152		9 434
Funds held by ceding companies	652	2 859		3 511
Deferred acquisition costs	–1	4		3
Acquired present value of future profits		–549		–549
Other assets	339	282	222	843
Total assets	**1 494**	**13 292**	**351**	**15 137**
Liabilities				
Unpaid claims and claim adjustment expenses	3 723	382		4 105
Liabilities for life and health policy benefits		2 688		2 688
Unearned premiums	124	83		207
Funds held under reinsurance treaties	56	8 771		8 827
Reinsurance balances payable	95	1 466		1 561
Short-term debt			2 826	2 826
Accrued expenses and other liabilities	4	762	1 360	2 126
Total liabilities	**4 002**	**14 152**	**4 186**	**22 340**

Issued in	Instrument	Maturity	Currency	Nominal in millions	Interest rate	Book value in USD millions
2016	Senior Loan	2018	USD	1 485	3mLIBOR+0.65%	1 485
2017	Senior Loan	2018	USD	305	3mLIBOR+0.65%	305
2017	Senior Loan	2018	USD	500	3mLIBOR+0.65%	500
2017	Senior Loan	2018	USD	250	3mLIBOR+0.65%	250
2017	Senior Loan	2018	GBP	25	3mLIBOR+0.22%	34
2017	Senior Loan	2018	USD	252	1.495%	252
Total short-term debt as of 31 December 2017						**2 826**

As of 31 December 2016 and 2017, the Group's investment in mortgages and other loans included USD 292 million and USD 301 million, respectively, of loans due from employees, and USD 184 million and USD 181 million, respectively, due from officers. These loans generally consist of mortgages offered at variable and fixed interest rates.

None of the members of BoD and the Group EC has any significant business connection with the Group or any of its Group companies.

The Company has entered into subordinated funding facilities with its parent company Swiss Re Ltd under which the Company has the right, among others, to issue subordinated notes to Swiss Re Ltd at any time. For its various rights, the Company owes Swiss Re Ltd an unconditional fixed commitment fee on the total facility amount, payable in annual instalments. Annually, the Company receives a partial reimbursement of the commitment fee on the undrawn facility amount. As of 31 December 2017, the facilities were undrawn.

An overview of the subordinated funding facilities is provided in the following table:

Instrument	Lender	Issued in	Maturity	Currency	Nominal value in millions	Commitment fee (on total facility amount)	Partial reimbursement of commitment fee (on undrawn amount)
Subordinated funding facility	Swiss Re Ltd	2015	2030	USD	700	5.80%	2.22%
Subordinated funding facility	Swiss Re Ltd	2016	2036	USD	400	6.10%	2.13%
Subordinated funding facility	Swiss Re Ltd	2016	2032	USD	800	5.68%	1.95%

14 Commitments and contingent liabilities

Leasing commitments

As part of its normal business operations, the Group enters into a number of lease agreements. As of 31 December, such agreements, which are operating leases, total the following obligations for the next five years and thereafter:

USD millions	2017
2018	63
2019	62
2020	52
2021	29
2022	28
After 2022	171
Total operating lease commitments	**405**
Less minimum non-cancellable sublease rentals	6
Total net future minimum lease commitments	**399**

Minimum rentals for all operating leases (except those with terms of one month or less that were not renewed) for the years ended 31 December 2016 and 2017 were USD 29 million and USD 36 million, respectively. Sublease rental income for the years ended 31 December 2016 and 2017 was nil and USD 2 million, respectively.

Other commitments

As a participant in limited and other investment partnerships, the Group commits itself to making available certain amounts of investment funding, callable by the partnerships for periods of up to ten years. The total commitments remaining uncalled as of 31 December 2017 were USD 2 114 million.

In 2016, the Group entered into a real estate construction contract. Total commitments under the contract amount to USD 52 million over the next three years.

The Group enters into a number of contracts in the ordinary course of reinsurance and financial services business which, if the Group's credit rating and/or defined statutory measures decline to certain levels, would require the Group to post collateral or obtain guarantees. The contracts typically provide alternatives for recapture of the associated business.

Legal proceedings

In the normal course of business operations, the Group is involved in various claims, lawsuits and regulatory matters. In the opinion of management, the disposition of these matters is not expected to have a material adverse effect on the Group's business, consolidated financial position, results of operations or cash flows.

15 Variable interest entities

The Group enters into arrangements with variable interest entities (VIEs) in the normal course of business. The involvement ranges from being a passive investor to designing, structuring and managing the VIEs. The variable interests held by the Group arise primarily as a result of the Group's involvement in certain insurance-linked securitisations, life and health funding transactions, swaps in trusts, debt financing, investment, senior commercial mortgage and infrastructure loans as well as other entities, which meet the definition of a VIE.

When analysing whether the entity is a VIE, the Group mainly assesses if (1) the equity is sufficient to finance the entity's activities without additional subordinated financial support, (2) the equity holders have the right to make significant decisions affecting the entity's operations and (3) the holders of the voting rights substantively participate in the gains and losses of the entity.

When one of these criteria is not met, the entity is considered a VIE and is assessed for consolidation under the VIE section of the Consolidation Topic.

The party that has a controlling financial interest is called a primary beneficiary and consolidates the VIE. The party is deemed to have a controlling financial interest if it has both of the following:

- the power to direct the activities of the VIE that most significantly impact the entity's economic performance; and
- the obligation to absorb the entity's losses that could potentially be significant to the VIE or the right to receive benefits from the entity that could potentially be significant to the VIE.

For all its variable interests in VIEs, the Group assesses whether it has a controlling financial interest in these entities and, thus, is the primary beneficiary. The Group identifies the activities that most significantly impact the entity's performance and determines whether the Group has the power to direct those activities. In conducting the analysis, the Group considers the purpose, the design and the risks that the entity was designed to create and pass through to its variable interest holders. Additionally, the Group assesses if it has the obligation to absorb losses or if it has the right to receive benefits of the VIE that could potentially be significant to the entity. If both criteria are met, the Group has a controlling financial interest in the VIE and consolidates the entity.

The Group monitors changes to the facts and circumstances of the existing involvement with legal entities to determine whether they require reconsideration of the entity's designation as a VIE or voting interest entity. For VIEs, the Group reassesses regularly the primary beneficiary determination.

Insurance-linked securitisations

The insurance-linked securitisations transfer pre-existing insurance risk to investors through the issuance of insurance-linked securities. In insurance-linked securitisations, the securitisation vehicle assumes the insurance risk from a sponsor through insurance or derivative contracts. The securitisation vehicle generally retains the issuance proceeds as collateral, which consists of investment-grade securities. The Group does not have potentially significant variable interest in these vehicles and therefore is not a primary beneficiary.

Typically, the variable interests held by the Group arise through ownership of insurance-linked securities, in which case the Group's maximum loss equals the principal amount of the securities held by the Group.

Life and health funding vehicles

The Group participates in certain structured transactions that retrocede longevity and mortality risks to captive reinsurers with an aim to provide regulatory capital credit to a transaction sponsor through creation of funding notes by a separate funding vehicle which is generally considered a VIE. The Group's participation in these transactions is generally limited to providing contingent funding support via a financial contract with a funding vehicle, which represents a potentially significant variable interest in the funding vehicle. The Group does not have power to direct activities of the funding vehicles and therefore is not a primary beneficiary of the funding vehicles in these transactions. The Group's maximum exposure in these transactions equals either the total contract notional or outstanding balance of the funding notes issued by the vehicle, depending on the specific contractual arrangements.

Swaps in trusts
The Group provides interest rate and foreign exchange risk hedges to certain asset securitisation trusts which qualify as VIEs. As the Group's involvement is limited to interest rate and foreign exchange derivatives, it does not have power to direct any activities of the trusts and therefore does not qualify as primary beneficiary of any of these trusts. These activities are in run-off.

Debt financing vehicles
The Group consolidates a debt-financing vehicle created to collateralise reinsurance coverage provided by the Group. The Group manages the asset portfolio in the vehicle and absorbs the variability of the investment return of the vehicle's portfolio, thereby satisfying both criteria for a controlling financial interest: power over activities most significant to the vehicle's economic performance and significant economic interest.

Investment vehicles
The Group's variable interests in investment partnerships arise through ownership of the limited partner interests. Many investment partnerships are VIEs because the limited partners as a group lack kick-out or participating rights. The Group does not hold the general partner interest in the limited partnerships and therefore does not direct investment activities of the entity. Therefore, the Group lacks power over the relevant activities of the vehicles and, consequently, does not qualify as the primary beneficiary. The Group is exposed to losses when the values of the investments held by the investment vehicles decrease. The Group's maximum exposure to loss equals the Group's share of the investment.

The Group is a passive investor in structured securitisation vehicles issuing residential and commercial mortgage-backed securities (RMBS and CMBS, respectively) and other asset-backed securities (ABS). The Group's investments in RMBS, CMBS and other ABS are passive in nature and do not obligate the Group to provide any financial or other support to the issuer entities. By design, RMBS, CMBS and ABS securitisation entities are not adequately capitalised and therefore considered VIEs. The Group is not the primary beneficiary, because it does not have power to direct most significant activities. These investments are accounted for as available-for-sale as described in the investment note and not included in the tables below.

The Group consolidates an investment vehicle, because the Group holds the entire interest in the entity and makes investment decisions related to the entity. The investment vehicle is a VIE because it is structured as an umbrella company comprised of multiple sub-funds. The majority of the investments held in this vehicle are accounted for as available-for-sale and are disclosed in the investment note and not included in the tables below.

Investment vehicles for unit-linked business
Additionally, the Group invests on behalf of the policyholders as a passive investor in a variety of investment funds across various jurisdictions. By design, many of these funds meet a VIE definition. While the Group may have a potentially significant variable interest in some of these entities due to its share of the fund's total net assets, it never has power over the fund's investment decisions, or unilateral kick-out rights relative to the decision maker.

The Group is not exposed to losses in the aforementioned investment vehicles, as the investment risk is borne by the policyholder.

Senior commercial mortgage and infrastructure loans
The Group also invests in structured commercial mortgage and infrastructure loans, which are held for investment.

The commercial mortgage loans are made to non-recourse special purpose entities collateralised with commercial real estate. The entities are adequately capitalised and generally structured as voting interest entities. Occasionally, the borrower entities can be structured as limited partnerships where the limited partners do not have kick-out or participating rights, which results in the VIE designation.

The infrastructure loans are made to non-recourse special purpose entities collateralised with infrastructure project assets. Some borrower entities may have insufficient equity investment at risk, which results in the VIE designation.

The Group does not have power over the activities most significant to the aforementioned borrower entities designated as VIEs and therefore does not consolidate them.

The Group's maximum exposure to loss from its investments equals the loan outstanding amount.

Other

The Group consolidates a vehicle providing reinsurance to its members, because it serves as a decision maker over the entity's investment and underwriting activities, as well as provides retrocession for the majority of the vehicle's insurance risk and receives performance-based fees. Additionally, the Group is obligated to provide the vehicle with loans in case of a deficit. The vehicle is a VIE, primarily because its total equity investment at risk is insufficient and the members lack decision-making rights.

The Group did not provide financial or other support to any VIEs during 2017 that it was not previously contractually required to provide.

Consolidated VIEs

The following table shows the total assets and liabilities in the Group's balance sheet related to VIEs of which the Group is the primary beneficiary as of 31 December:

USD millions	2016	2017
Fixed income securities available-for-sale	3 715	3 974
Short-term investments	128	62
Cash and cash equivalents	22	12
Accrued investment income	33	34
Premiums and other receivables	33	29
Deferred acquisition costs	9	4
Deferred tax assets	94	41
Other assets	8	15
Total assets	4 042	**4 171**
Unpaid claims and claim adjustment expenses	65	84
Liabilities for life and health policy benefits		1
Unearned premiums	25	12
Reinsurance balances payable	6	17
Deferred and other non-current tax liabilities	213	133
Accrued expenses and other liabilities	14	20
Long-term debt	2 249	2 369
Total liabilities	2 572	**2 636**

The assets of the consolidated VIEs may only be used to settle obligations of these VIEs and to settle any investors' ownership liquidation requests. There is no recourse to the Group for the consolidated VIEs' liabilities. The assets of the consolidated VIEs are not available to the Group's creditors.

Non-consolidated VIEs

The following table shows the total assets and liabilities on the Group's balance sheet related to VIEs in which the Group held a variable interest but was not the primary beneficiary as of 31 December:

USD millions	2016	2017
Fixed income securities available-for-sale	415	412
Equity securities available-for-sale	466	656
Policy loans, mortgages and other loans	764	848
Other invested assets	1 419	1 167
Investments for unit-linked business	163	180
Total assets	3 227	**3 263**
Accrued expenses and other liabilities	78	67
Total liabilities	78	**67**

The following table shows the Group's assets, liabilities and maximum exposure to loss related to VIEs in which the Group held a variable interest but was not the primary beneficiary as of 31 December:

			2016			**2017**
USD millions	Total assets	Total liabilities	Maximum exposure to loss[1]	Total assets	Total liabilities	Maximum exposure to loss[1]
Insurance-linked securitisations	336		331	311		314
Life and health funding vehicles	2	1	1 948	27	1	2 052
Swaps in trusts	164	77	–[2]	25	66	–[2]
Investment vehicles	1 728		1 729	1 771		1 772
Investment vehicles for unit-linked business	163			180		
Senior commercial mortgage and infrastructure loans	834		834	949		949
Total	3 227	78	–[2]	**3 263**	**67**	**–[2]**

[1] Maximum exposure to loss is the loss the Group would absorb from a variable interest in a VIE in the event that all of the assets of the VIE are deemed worthless.
[2] The maximum exposure to loss for swaps in trusts cannot be meaningfully quantified due to their derivative character.

The assets and liabilities for the swaps in trusts represent the positive and negative fair values of the derivatives the Group has entered into with the trusts.

Report of the statutory auditor

Report of the statutory auditor
to the General Meeting of
Swiss Reinsurance Company Ltd
Zurich

Report of the statutory auditor on the consolidated financial statements

As statutory auditor, we have audited the accompanying consolidated financial statements of Swiss Reinsurance Company Ltd and its subsidiaries (the 'Company'), which comprise the consolidated balance sheet as of 31 December 2017, and the related consolidated income statement, statement of comprehensive income, statement of shareholder's equity, statement of cash flows and notes for the year ended 31 December 2017.

Board of Directors' responsibility

The Board of Directors is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America and the requirements of Swiss law. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with Swiss law, Swiss Auditing Standards and auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control system. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of the Company at 31 December 2017, the results of their operations and their cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America and comply with Swiss law.

Other matter

Accounting principles generally accepted in the United States of America require that the supplementary information based on the requirements of ASU 2015-09, Disclosures about Short-Duration Contracts, on pages 40 to 47 be presented to supplement the consolidated financial statements. Such information, although not part of the consolidated financial statements, is required by the Financial Accounting Standards Board, which considers it an essential part of financial reporting for placing the consolidated financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the consolidated financial statements and other knowledge we obtained during our audit of the consolidated financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

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 judgement, 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.

Unobservable or interpolated inputs used for the valuation of certain level 2 and 3 investments

Key audit matter

Investment valuation continues to be an area with inherent risk for certain level 2 and 3 investments that have unobservable or interpolated inputs. The risk is not the same for all investment types and is greatest for those listed below. These investments are more difficult to value because quoted prices are not always available and valuation requires unobservable or interpolated inputs and complex valuation models:

- Fixed income securitised products
- Fixed income mortgage and asset-backed securities
- Private placements and infrastructure loans
- Private equities
- Derivatives
- Insurance-related financial products

How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls around the valuation models for level 2 and 3 investments, including the Company's independent price verification process. We also tested management's data integrity and change management controls relating to the valuation models.

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

- Challenging the Company's methodology and assumptions, in particular, the yield curves, discounted cash flows, perpetual growth rates and liquidity premiums used in the valuation models.
- Comparing the assumptions used against appropriate benchmarks and investigating significant differences.
- Engaging our own valuation experts to perform independent valuations of selected investments.

On the basis of the work performed, we consider the assumptions used by management to be appropriate and that the investments classified as level 2 and 3 are properly valued as of 31 December 2017.

Valuation of actuarially determined Property & Casualty ('P&C') loss reserves

Key audit matter

Valuation of actuarially determined P&C 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 and methods to estimate these reserves. Actuarially determined P&C loss reserves require significant judgement relating to certain factors and assumptions. Among the most significant reserving assumptions are the A-priori loss ratios, which typically drive the estimates of P&C loss reserves for the most recent contract years. Other key factors and assumptions include, but are not limited to, interest rates, inflation trends, claims trends, regulatory decisions, historical claims information and the growth of exposure.

In particular, loss reserves for 'long tail' lines of business (for example, the Liability, US Asbestos and Environmental, Motor Liability and Workers' Compensation portfolios) are generally more difficult to project. This is due to the protracted period over which claims can be reported as well as the fact that claim settlements are often less frequent but of higher magnitude. They are also subject to greater uncertainties than claims relating to 'short-tail' business. Long-tailed lines of business generally rely on many assumptions based on experts' judgement.

Moreover, not all natural catastrophe events and significant man-made losses can be modelled using traditional actuarial methodologies, which increases the degree of judgement needed in establishing reserves for these events.

How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls relating to the application of the actuarial methodology, data collection and analysis, as well as the processes for determining the assumptions used by management in the valuation of actuarially determined P&C loss reserves.

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

- Testing the completeness and accuracy of underlying data utilised by the Company's actuaries in estimating P&C loss reserves.
- Applying IT audit techniques to analyse claims through the recalculation of claims triangles.
- Involving PwC's internal actuarial specialists to independently test management's estimates of P&C loss reserves, and evaluate the reasonableness of the methodology and assumptions used by comparing them with recognised actuarial practices and by applying our industry knowledge and experience.
- Performing independent projections of selected product lines. For these product lines, we compared our calculations of projected reserves with those of the Company taking into account the available corroborating and contrary evidence and challenging management's assumptions as appropriate.
- Assessing the process and related judgements of management in relation to natural catastrophes and other large losses, including using our industry knowledge to assess the reasonableness of market loss estimates and other significant assumptions.
- Performing sensitivity tests to determine the impact of selected key assumptions.
- Evaluating the appropriateness of any significant adjustments made by management to P&C loss reserve estimates.

On the basis of the work performed, we consider that the methodology, assumptions and underlying data used in the valuation of actuarially determined P&C loss reserves to be reasonable and in line with financial reporting requirements and accepted industry practice.

Valuation of actuarially determined Life & Health ('L&H') loss reserves

Key audit matter

The Company's valuation of liabilities for L&H policy benefits and policyholder account balances involves complex judgements about future events affecting the business. Actuarial assumptions selected by the Company with respect to interest rates, investment returns, mortality, morbidity, lapse in coverage, longevity, persistency, expenses, stock market volatility and future policyholder behaviour may result in material impacts on the valuation of L&H reserves. The methodology and methods used can also have a material impact on the valuation of actuarially determined L&H reserves.

The valuation of actuarially determined L&H reserves depends on the use of complex models. The Company continues to migrate actuarial data and models from legacy systems and/or spreadsheets to new actuarial modelling systems. At the same time, management is validating models to ensure that new models are fit for use. Moving from one modelling platform to another is a complex and time-consuming process, frequently taking several years. Any resulting adjustments to reserves need to be assessed in terms of appropriateness and classified as changes in estimates or as an out-of-period adjustment.

How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls relating to the application of actuarial methodology, data collection and analysis, as well as the processes for determining the assumptions used by management in the valuation of actuarially determined L&H reserves.

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

- Testing the completeness and accuracy of the underlying data by vouching against the source documentation.
- Testing the migration of actuarial data from legacy systems and/or spreadsheets to the new actuarial systems for completeness and accuracy.
- Performing independent model validation procedures, including detailed testing of models, independent recalculations and back testing.
- Involving our own life insurance actuarial specialists to test the methodology and assumptions used by management, with particular consideration of industry studies, the Company's experience and management's liability adequacy test procedures.
- Challenging the Company's methodology and methods, focusing on changes to L&H actuarial methodology and methods during the year, by applying our industry knowledge and experience to check whether the methodology and methods are consistent with recognised actuarial practices and reporting requirements.

On the basis of the work performed, we consider that the methodology, methods, assumptions and underlying data used in the valuation of actuarially determined L&H reserves to be reasonable and in line with financial reporting requirements and accepted industry practice.

Completeness and valuation of uncertain tax items

Key audit matter

The Company is carrying a provision for uncertain tax items on its books. The valuations of these items are based on management's estimates and management's assessment whether deferred tax assets are more likely than not to be realised. In recent years there have been releases of uncertain tax positions as a result of the completion of audits by tax authorities. Changes in the estimates of uncertain tax items have an impact (through income tax expense) on the results.

How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls in place to determine the completeness of the uncertain tax items and management's assessment of the items for recognition and valuation.

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

- Involving our own tax specialists to critically review management's 'more likely than not' tax assessments to evaluate the Company's judgements and estimates of the probabilities and the amounts.
- Assessing how the Company had considered new information or changes in tax law or case law, and assessing the Company's judgement of how these impact the Company's position or measurement of the required provision.
- Examining tax audit documentation to validate the appropriateness of releases of uncertain tax provisions.

On the basis of the work performed, we consider management's assessment relating to the valuation of the uncertain tax items to be appropriate.

Report on other legal requirements

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

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 Ltd

Alex Finn

Bret M. Griffin

Alex Finn
Audit expert
Auditor in charge

Bret Griffin

Zurich, 14 March 2018

Annual Report Swiss Reinsurance Company Ltd

The management report follows the regulations as outlined in article 961c of the Swiss Code of Obligations.

Reinsurance and sub-holding company
Swiss Reinsurance Company Ltd (the Company), domiciled in Zurich, Switzerland, performs a dual role within the Swiss Re Group as both a reinsurance company and a sub-holding company for the Reinsurance Business Unit. The Company is a wholly-owned subsidiary of Swiss Re Ltd, the ultimate parent company, domiciled in Zurich, Switzerland. In 2017, the Company employed a worldwide staff at an average of 1 930 full time equivalents.

Financial year 2017

The Company further aligned the legal entity structure with the management view and thus transferred risks allocated to the Life Capital Business Unit to Swiss Re Life Capital Re Ltd via novation and retrocession transactions, effective 1 January 2017.

In addition, the Company was affected by several intragroup transactions in preparation of the redomiciliation of Swiss Re Asia Ltd from Switzerland to Singapore per year-end 2017. Effective 1 October 2017, the Company assumed the Canadian life and health business, which was previously novated from Swiss Re Asia Ltd to Swiss Re Life Capital Re Ltd. Furthermore, the Company entered into a new intragroup agreement with Swiss Re Asia Ltd to cover the property and casualty business originally written in the Asian branches of the Company and retroceded to Swiss Re Asia Ltd.

The aforementioned intragroup transactions were all performed at Swiss statutory book value and hence did not impact the Company's net income at inception, but significantly affected various balance sheet and income statement positions in 2017.

Net income for 2017 amounted to CHF 1 209 million, benefiting from a very strong investment result of CHF 2 546 million, partly offset by several large natural catastrophe losses, namely the three hurricane events Harvey, Irma and Maria as well as the California Wildfires. These events amounted to direct incurred losses of CHF 1 597 million and additionally triggered claims of CHF 842 million from stop loss programmes with affiliated companies. These impacts were partly absorbed by a subsequent release of the equalisation provision of CHF 1 323 million.

With CHF 10 821 million the total shareholder's equity of the Company remained strong as at 31 December 2017.

Reinsurance result

Reinsurance result amounted to CHF 227 million in 2017, compared to CHF 1 238 million in 2016. Property and Casualty Reinsurance result decreased from CHF 1 522 million in 2016 to CHF 354 million in 2017, significantly impacted by large natural catastrophe losses and the deterioration on large casualty transactions in the US, partly absorbed by a subsequent release of the equalisation provision. Life & Health Reinsurance result experienced a loss of CHF 127 million in 2017, compared to a loss of CHF 284 million in 2016. This loss in 2017 was driven by negative impacts from Swiss Re Life & Health Australia Ltd, due to a true-up of the modified coinsurance balance as at 31 December 2016, as well as by a large transaction in Europe.

Premiums earned decreased from CHF 17 580 million in 2016 to CHF 17 421 million in 2017. Property and casualty premiums earned increased from CHF 11 237 million in 2016 to CHF 11 312 million in 2017. The increase was predominately driven by the growth in the US casualty business, partly offset by a volume decrease in the agriculture business in Asia as well as negative cedent updates in Europe. Life and health premiums earned decreased from CHF 6 343 million in 2016 to CHF 6 109 million in 2017. This was stemming from the lower business volume renewed in Europe, as well as the impact of the business novated to Swiss Re Life Capital Re Ltd in 2017.

Other reinsurance revenue increased from CHF 1 003 million in 2016 to CHF 1 439 million in 2017. The increase was driven by favourable fair value adjustments in the Canadian life and health business and higher interest income on cash deposit from life and health transactions in the US.

Claims incurred increased from CHF 12 042 million in 2016 to CHF 13 098 million in 2017, mainly due to large natural catastrophe losses, partly absorbed by a subsequent release of the equalisation provision in 2017. The comparison of the individual claims line items was affected by large intragroup restructurings as well as new large life and health transactions, creating substantial changes year-over-year. In aggregate, these various movements fully offset each other.

Property and casualty claims paid and claims adjustment expenses net increased from CHF 389 million in 2016 to CHF 3 922 million in 2017, driven by a new intragroup retrocession agreement with Swiss Re Asia Ltd as well as the growth in motor, accident and health businesses and higher loss ratio in large casualty transactions in the US. The aforementioned restructuring impacts were fully offset in change in unpaid claims net for the property and casualty business, which in consequence decreased from CHF 6 278 million in 2016 to CHF 5 393 million in 2017, despite the large natural catastrophe events mostly in property business.

As a consequence of property and casualty losses in 2017, driven by the large natural catastrophe events, the equalisation provision was reduced by CHF 1 323 million.

Life and health benefits net changed from a loss of CHF 3 653 million in 2016 to a gain of CHF 3 492 million in 2017, mainly due to the intragroup retrocession restructurings, primarily with Swiss Re Life Capital Re Ltd and Swiss Re Asia Ltd, as well as large transactions with external cedents. These aforementioned restructuring and large transaction impacts were fully offset in life and health claims paid and claims adjustment expenses net, which changed from a gain of CHF 241 million in 2016 to a loss of CHF 8 814 million in 2017, as well as in change in unpaid claims, which changed from a loss of CHF 1 963 million in 2016 to a gain of CHF 216 million in 2017.

Acquisition costs net increased from CHF 4 150 million in 2016 to CHF 4 333 million in 2017, mainly in life and health business, driven by a profit commission adjustment in Australia and the new business in the US with exceptionally high commission ratio.

Other reinsurance expenses increased from CHF 646 million in 2016 to CHF 878 million in 2017, driven by interest on cash deposits paid to Swiss Re Life Capital Re Ltd and an unfavourable day-one impact of a large transaction bound in Europe in 2017.

Investment result
Investment income increased from CHF 1 779 million in 2016 to CHF 3 246 million in 2017. The increase was mainly driven by the dividend from Swiss Re Reinsurance Holding Company Ltd of CHF 974 million and the distribution of the retained income from shares in investment funds of CHF 568 million. In addition, the year under report benefitted by CHF 227 million from one-off value readjustments on fixed income securities up to amortised cost, following the new accounting policy introduced in 2017.

Investment expenses decreased from CHF 695 million in 2016 to CHF 317 million in 2017, which was mainly related to higher value adjustments on fixed income securities in 2016, driven by market deteriorations.

Other income and expenses
The increase in other net expenses from CHF 158 million in 2016 to CHF 479 million in 2017 was mainly due to lower net realised foreign exchange gains in 2017, compared to the prior year.

Extraordinary income and expenses
The 2017 net income contained an extraordinary expense of CHF 226 million, which was caused by a correction of an overstatement of the 2016 income statement in the same amount. The overstatement in 2016 resulted from an incorrect recognition of foreign exchange rate adjustments on cross currency interest rate swaps through the income statement instead of adjusting only the notional of these derivative financial instruments on the balance sheet.

Assets
Total assets increased from CHF 101 291 million as of 31 December 2016 to CHF 113 052 million as of 31 December 2017.

Total investments increased slightly from CHF 54 295 million to CHF 54 410 million in 2017, mainly driven by the increase in shares in investment funds of CHF 2 904 million, mostly in connection with proceeds reinvested from the change in the structure of reinsurance intragroup retrocession agreements with affiliated companies. This was largely offset by the decrease in short-term investments of CHF 2 484 million, mainly related to the partial funding of the dividend to the parent company and net repayments of loans CHF 659 million primarily from intragroup companies.

Assets in derivative financial instruments decreased from CHF 1 108 million to CHF 822 million in 2017, mainly driven by less held hedge instruments in connection with the life and health variable annuities business due to the run-off of a closed book and the positive market performance of the underlying business.

Funds held by ceding companies increased from CHF 18 840 million to CHF 20 913 million in 2017, mainly related to the property and casualty business in the US, as a result of the business volume growth, higher fund withheld percentage on intragroup treaty and large losses. In addition, life and health funds held increased, mainly due to a new intragroup transaction with Swiss Re Life Capital Re Ltd covering the Canadian in-force business.

Deferred acquisition costs increased from CHF 1 595 million to CHF 2 220 million in 2017, mostly driven by a new property and casualty intragroup retrocession agreement with Swiss Re Asia Ltd.

Reinsurance recoverable on technical provisions retroceded increased from CHF 8 708 million to CHF 13 380 million in 2017, mainly in life and health business, due to a new intragroup retrocession agreement with Swiss Re Life Capital Re Ltd for the Life Capital business.

Premiums and other receivables from reinsurance increased from CHF 8 473 million to CHF 12 615 million in 2017, reflecting the decommissioning of the asset and liability netting process in 2017. In 2016, this process reduced the receivable and the payable balances by CHF 2 645 million, mainly related to intragroup transactions.

Accrued income increased from CHF 336 million to CHF 1 258 million in 2017, mainly related to the dividend from Swiss Re Reinsurance Holding Company Ltd, to be paid by the subsidiary in 2018.

Liabilities
Total liabilities increased from CHF 89 089 million as of 31 December 2016 to CHF 102 231 million as of 31 December 2017.

Technical provisions gross increased from CHF 64 322 million to CHF 70 798 million in 2017, mainly in property and casualty business, driven by large natural catastrophe losses, net of the equalisation provision release, as well as the business volume growth and the deterioration on motor loss ratio in the US. Further, technical provisions also increased as a result of the new intragroup retrocession agreements with affiliated companies.

Liabilities in derivative financial instruments decreased from CHF 1 877 million to CHF 1 313 million in 2017, mainly driven by less held derivative financial instruments in connection with the life and health variable annuities business due to the run-off of a closed book and the positive market performance of the underlying business.

Funds held under reinsurance treaties increased from CHF 3 789 million to CHF 8 050 million in 2017, mostly in life and health business, reflecting a new intragroup retrocession agreement with Swiss Re Life Capital Re Ltd covering the Life Capital business.

Reinsurance balances payable increased from CHF 2 898 million to CHF 6 378 million in 2017, reflecting the decommissioning of the asset and liability netting process in 2017. In 2016, this process reduced the receivable and the payable balances by CHF 2 645 million, mainly related to intragroup transactions.

Debt increased by CHF 1 424 million to CHF 5 130 million in 2017, mainly reflecting the net change of a new loan facility from Swiss Re Reinsurance Holding Company Ltd of CHF 1 876 million and an existing loan facility from Swiss Re Ltd of CHF 542 million, partly offset by the maturity of an external debt of CHF 600 million.

Other liabilities decreased from CHF 6 396 million to CHF 5 572 million in 2017, mainly reflecting the reduction of intragroup payables under securities lending agreements and securities sold under agreement to repurchase, partly offset by higher intragroup current account payables.

The decrease in subordinated liabilities of CHF 781 million to CHF 3 758 million in 2017 was mainly driven by the maturity of external subordinated debts.

Shareholder’s equity
Shareholder’s equity decreased from CHF 12 202 million as of 31 December 2016 to CHF 10 821 million as of 31 December 2017.

The decrease reflected the dividend payment in cash of CHF 2 590 million partly offset by the net income for the financial year 2017 of CHF 1 209 million.

Future prospects and business development

Subsequent event
In the context of the “Tax Cuts and Jobs Act of 2017” in the US, the Company is currently reassessing its intercompany structure with the affiliated companies Swiss Reinsurance America Corporation and Swiss Re Life & Health America Inc and their subsidiaries. It is expected that several intragroup retrocession agreements will either be recaptured, novated or not renewed in the course of 2018. While the financial impact can not be quantified at the date of approving the Company’s 2017 financial statements, it is assumed that significant impacts to the Company’s balance sheet and income statement are expected in 2018.

Large transactions
Following the redomiciliation of Swiss Re Asia Ltd from Switzerland to Singapore per year-end 2017, the Company is going to sell any assets and liabilities of its Singapore branch to Swiss Re Asia Ltd, effective 1 January 2018. With this sale the Company will transfer any related rights and obligations of the branch to Swiss Re Asia Ltd, including the entire reinsurance business as well as the employees, employed by the branch. Furthermore, the Company will sell its remaining Asian branches to Swiss Re Asia Ltd in the upcoming years.

Property & Casualty Reinsurance business

Market environment

The capital position of global reinsurers was more or less stable over the recent years. Capital growth has been managed increasingly via dividend payments and share buy-back programmes, hence returning almost all of the industry´s net income to shareholders. Nevertheless, there was still some excess capital in traditional reinsurance by mid 2017, and this has been significantly reduced by the losses from hurricanes Harvey, Irma and Maria.

Strategy and priorities

The three major hurricane events of 2017 led to rate hardening for both for loss-affected accounts, and to a lesser extent for loss-free accounts at the January 2018 renewals. Capital abundance in traditional reinsurance has been reduced, and alternative capacity will require additional funds from investors to operate at the same level as before the hurricane losses.

In 2018, advanced markets non-life reinsurance premium growth will likely reflect a hardening of rates and slightly stronger nominal growth in the primary market. Demand should also be supported by new solvency regulations: non-life reinsurance has become more attractive for European insurers under Solvency II, since it better reflects the risk mitigating effect of reinsurance.

Life & Health Reinsurance business

Market environment

The life reinsurance industry registered a 4% increase in premiums written in 2017. Underlying reinsurance premium growth in traditional reinsurance areas like mortality and morbidity risk has remained relatively subdued this year with an estimated growth rate of 1% in real terms in 2017. In mature markets, slight contractions in the US and UK were set off by positive developments in Canada, Japan, Australia, and Continental Europe. In the emerging markets, premiums grew by 11%, driven largely by China, with other emerging markets seeing more modest growth.

Against this background, life reinsurers have sought to increase revenues through large, individual risk transfer transactions that help primary insurers stabilise income and/or bolster their balance sheets. The introduction of risk-based capital regimes has prompted much of this activity. In Europe, for example, Solvency II has underpinned interest in reinsurance to boost available capital, reduce required regulatory capital or to economise on reserves.

Strategy and priorities

Continued recovery in primary insurance should support growth in life reinsurance revenues, including a recovery in traditional renewable business. Premium growth will nonetheless likely remain modest, especially in the large advanced markets. In real terms, global life reinsurance premiums are forecast to increase by just over 1% in 2018. Premiums in the advanced markets are projected to decline after adjusting for inflation, driven by developments in the US where cession rates continue their long-term down trend and growth in the primary market remains weak. In Western Europe, where cession rates are usually lower, reinsurance premiums are forecast to grow by about 1%. The strongest contribution to real growth in the advanced markets will likely come from developed Asia.

Investments

Strategy and priorities

Financial investments are managed in accordance with Swiss Re's asset management policy and the Company's investment guidelines, which are intended to ensure compliance with regulatory requirements. The general principle governing investment management in the Company is the creation of economic value on the basis of returns relative to the liability benchmark, while adhering to the investment guidelines and the general prudence principle. The liability benchmark is determined by approximating an investable benchmark from projected liability cash flows. A cash benchmark is used for the economic surplus.

Outlook

In terms of the economic outlook, the moderate global growth environment is set to continue during 2018, both in developed and emerging market economies, while inflation is forecast to modestly increase globally. From a regional perspective, growth is set to stay solid in the Eurozone and the US where it is supported by expected improvements in US corporate earnings from the recently passed tax reform legislation, while growth for China is expected to slow somewhat in 2018. For the UK, growth is expected to be more modest amid continued Brexit-related uncertainty.

Risk assessment

The Company's Board of Directors has issued a mandate to establish a Risk Management function to provide independent risk taking oversight for the Company and its subsidiaries. In executing this task, the Risk Management function is supported by the Swiss Re Group Risk Management organisation. Significant parts of risk exposure identification, assessment, control and reporting for Swiss Reinsurance Company Ltd on a stand-alone basis are integrated in Group Risk Management processes.

The Board of Directors of Swiss Reinsurance Company Ltd sets the Company's risk tolerance. In this role, it is advised by the Board of Directors of the Swiss Re Group, which defines the Group's basic risk management principles and risk appetite framework including the Group risk tolerance. The Board of Directors of the Swiss Re Group mainly performs risk oversight and governance through three committees:

- The Finance and Risk Committee defines the Group Risk Policy, reviews risk capacity limits, monitors adherence to risk tolerance, and reviews top risk issues and exposures.
- The Investment Committee reviews the financial risk analysis methodology and valuation related to each asset class, and ensures that the relevant management processes and controlling mechanisms are in place.
- The Audit Committee oversees internal controls and compliance procedures.

The Group Executive Committee (Group EC) is responsible for developing and implementing Swiss Re's Group-wide risk management framework. It also sets and monitors risk capacity limits, oversees the Economic Value Management framework, determines product policy and underwriting standards, and manages regulatory interactions and legal obligations. The Group EC has delegated various risk management responsibilities to the Group Chief Risk Officer (Group CRO) as well as to certain legal entity CROs, including the CRO of Swiss Reinsurance Company Ltd.

The Group CRO is appointed as the principal independent risk controller of Swiss Re. The Group CRO is a member of the Group EC and reports directly to the Group CEO as well as to the Board's Finance and Risk Committee. The Group CRO also advises the Group EC, the Chairman or the respective Group Board Committees, in particular the Finance and Risk Committee, on significant matters arising in his area of responsibility. The Group CRO leads the independent Risk Management function, which is responsible for risk oversight and control across Swiss Re. It thus forms an integral part of Swiss Re's business model and risk management framework. The Risk Management function comprises risk teams for legal entities and regions as well as central teams that provide specialised risk expertise and oversight.

Legal entity risk teams of the Company and its subsidiaries are led by dedicated CROs who report directly or indirectly to their top-level CRO (Company CRO), who reports to the Group CRO, with a secondary reporting line to the Company CEO. These legal entity CROs are responsible for risk oversight in their respective legal entities, as well as for establishing the proper risk governance to ensure efficient risk identification, assessment and control.

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

The central teams support the dedicated CROs at Group and legal entity level in discharging their oversight responsibilities. They do so by providing services, such as:

- Financial risk management
- Specialised risk category expertise and accumulation control
- Risk modelling and analytics
- Regulatory relations management
- Maintaining the central risk governance framework

The central departments also oversee Group liquidity and capital adequacy and maintain the Group frameworks for controlling these risks throughout Swiss Re.

For the Company and its subsidiaries, the setting of the reserves is performed by valuation actuaries within the P&C and L&H Business Management units. Risk Management activities are complemented by Swiss Re's Group Internal Audit and Compliance units:

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

Income statement
Swiss Reinsurance Company Ltd

For the years ended 31 December

Income statement

CHF millions	Note	2016	2017
Reinsurance			
Premiums written gross		*22 976*	*22 529*
Premiums written retroceded		*–4 207*	*–3 822*
Premiums written net		18 769	**18 707**
Change in unearned premiums gross		*–1 112*	*–918*
Change in unearned premiums retroceded		*–77*	*–368*
Change in unearned premiums net		–1 189	**–1 286**
Premiums earned		17 580	**17 421**
Other reinsurance revenues		1 003	**1 439**
Allocated investment return		297	**383**
Total revenues from reinsurance business		18 880	**19 243**
Claims paid and claim adjustment expenses gross		*–2 523*	*–10 547*
Claims paid and claim adjustment expenses retroceded		*2 375*	*–2 189*
Claims paid and claim adjustment expenses net		–148	**–12 736**
Change in unpaid claims gross		*–8 545*	*–6 289*
Change in unpaid claims retroceded		*304*	*1 112*
Change in unpaid claims net		–8 241	**–5 177**
Life and health benefits gross		*–4 101*	*–408*
Life and health benefits retroceded		*448*	*3 900*
Life and health benefits net		–3 653	**3 492**
Claims and claim adjustment expenses and life and health benefits		–12 042	**–14 421**
Change in equalisation provision		–	**1 323**
Claims incurred		–12 042	**–13 098**
Acquisition costs gross		*–5 373*	*–5 421*
Acquisition costs retroceded		*1 223*	*1 088*
Acquisition costs net		–4 150	**–4 333**
Operating costs		–804	**–707**
Acquisition and operating costs		–4 954	**–5 040**
Other reinsurance expenses		–646	**–878**
Total expenses from reinsurance business		–17 642	**–19 016**
Reinsurance result		1 238	**227**

CHF millions	Note	2016	2017
Investments	2		
Investment income		1 779	**3 246**
Investment expenses		–695	**–317**
Allocated investment return		–297	**–383**
Investment result		787	**2 546**
Other financial income and expenses			
Other financial income		1 906	**2 300**
Other financial expenses		–2 254	**–2 559**
Operating result		1 677	**2 514**
Interest expenses on debt and subordinated liabilities		–418	**–408**
Other income and expenses			
Other income		247	**73**
Other expenses		–405	**–552**
Extraordinary income and expenses		–	**–226**
Income before income tax expense		1 101	**1 401**
Income tax expense		–226	**–192**
Net income		875	**1 209**

The accompanying notes are an integral part of Swiss Reinsurance Company Ltd’s financial statements.

Balance sheet Swiss Reinsurance Company Ltd

As of 31 December

Assets

CHF millions	Note	2016	2017
Investments			
Investments in subsidiaries and affiliated companies		13 094	**13 175**
Fixed income securities		17 382	**17 345**
Loans		8 752	**8 093**
Mortgages		808	**809**
Equity securities		611	**906**
Shares in investment funds		9 197	*12 101*
Short-term investments		3 838	*1 354*
Alternative investments		613	*627*
Other investments		13 648	**14 082**
Total investments		54 295	**54 410**
Financial and reinsurance assets			
Assets in derivative financial instruments		1 108	**822**
Funds held by ceding companies		18 840	**20 913**
Cash and cash equivalents		2 226	**884**
Reinsurance recoverable from unpaid claims	3	4 732	*5 877*
Reinsurance recoverable from liabilities for life and health policy benefits	3	1 707	*5 592*
Reinsurance recoverable from unearned premiums	3	2 223	*1 863*
Reinsurance recoverable from provisions for profit commissions	3	46	*48*
Reinsurance recoverable on technical provisions retroceded		8 708	**13 380**
Tangible assets		15	**14**
Deferred acquisition costs	3	1 595	**2 220**
Intangible assets		100	**106**
Premiums and other receivables from reinsurance	3	8 473	**12 615**
Other receivables		183	**158**
Other assets		5 412	**6 272**
Accrued income	18	336	**1 258**
Total financial and reinsurance assets		46 996	**58 642**
Total assets		101 291	**113 052**

The accompanying notes are an integral part of Swiss Reinsurance Company Ltd's financial statements.

Liabilities and shareholder's equity

CHF millions	Note	2016	2017
Liabilities			
Technical provisions gross			
Unpaid claims	3	39 365	46 096
Liabilities for life and health policy benefits	3	15 728	15 872
Unearned premiums	3	7 147	8 027
Provisions for profit commissions	3	538	582
Equalisation provision	3	1 544	221
Total technical provisions gross		64 322	**70 798**
Non-technical provisions			
Tax provisions		209	190
Provision for currency fluctuation		938	679
Other provisions		215	162
Total non-technical provisions		1 362	**1 031**
Debt		3 706	**5 129**
Liabilities from derivative financial instruments		1 877	**1 313**
Funds held under reinsurance treaties		3 789	**8 050**
Reinsurance balances payable	3	2 898	**6 378**
Other liabilities		6 396	**5 572**
Accrued expenses		200	**202**
Subordinated liabilities		4 539	**3 758**
Total liabilities		89 089	**102 231**
Shareholder's equity	4		
Share capital		34	34
Legal reserves from capital contributions		*6 778*	*6 778*
Legal capital reserves		6 778	6 778
Legal profit reserves		650	650
Voluntary profit reserves		3 839	2 099
Retained earnings brought forward		26	51
Net income for the financial year		875	1 209
Total shareholder's equity		12 202	**10 821**
Total liabilities and shareholder's equity		101 291	**113 052**

The accompanying notes are an integral part of Swiss Reinsurance Company Ltd's financial statements.

Notes
Swiss Reinsurance Company Ltd

Reinsurance and sub-holding company
Swiss Reinsurance Company Ltd (the Company), domiciled in Zurich, Switzerland, performs a dual role within the Swiss Re Group as both a reinsurance company and a sub-holding company for the Reinsurance Business Unit. The Company is a wholly-owned subsidiary of Swiss Re Ltd, the ultimate parent company domiciled in Zurich, Switzerland.

Structural changes
Swiss Re Group restructured its Canadian life and health business in 2017. This business is originally ceded from external parties to the Canada branch of the Company. Prior to the restructuring, the branch retroceded a large share of this business to Swiss Re Asia Ltd. With the restructuring, Swiss Re Asia Ltd novates this business to Swiss Re Life Capital Re Ltd, which then retrocedes the majority of this received business to the Company by applying the same terms and conditions. As such on a legal entity view, the Company discloses this business in its 2017 financial statements on a gross basis. Hence, both, the assumed external and the assumed internal business as well as the internal retroceded business are reflected on various balance sheet and income statement positions.

The same gross presentation is used for a newly set up intragroup property and casualty retrocession agreement between Swiss Re Asia Ltd and the Company in connection with business originally written in the Asian branches of the Company and retroceded to Swiss Re Asia Ltd.

1 Significant accounting principles

Basis of presentation
In general, the financial statements are prepared in accordance with Swiss Company Law. As a reinsurance company and based on Art. 111b of the Ordinance on the supervision of private insurance companies (ISO), the Company is also required to follow the Insurance Supervisory Ordinance-FINMA (ISO-FINMA). The ISO-FINMA contains specific guidance for presentation of the balance sheet, the income statement and the notes of insurance companies and overrides the general guidance of the Swiss Code of Obligations (SCO).

Time period
The 2017 financial year comprises the accounting period from 1 January 2017 to 31 December 2017.

Use of estimates in the preparation of annual accounts
The preparation of the annual accounts requires management to make significant estimates and assumptions that affect the reported amounts of assets, liabilities, income and expenses as well as the related disclosures. Actual results could differ significantly from these estimates.

Foreign currency translation
Assets and liabilities denominated in foreign currencies are converted into Swiss francs at year-end exchange rates with the exception of participations, which are maintained in Swiss francs at historical exchange rates. Income and expenses in foreign currencies are converted into Swiss francs at average exchange rates for the reporting year.

Investments
Investments in subsidiaries and affiliated companies are carried at cost, less necessary and legally permissible depreciation.

The Company's investments in subsidiaries and affiliated companies are summarised as a group for valuation purposes, when a close business link exists and a similarity in nature is given.

Fixed income securities are measured at their amortised cost for the first time in 2017. Until the year-end 2016, fixed income securities were carried at cost, less necessary and legally permissible depreciation. The effect of this change as of 1 January 2017 was CHF 227 million.

The following assets are carried at cost or lower market value:

- Equity securities
- Shares in investment funds
- Alternative investments

Loans and mortgages are carried at nominal value. Value adjustments are recorded where the expected recovery value is lower than the nominal value.

Short-term investments contain investments with an original duration between three months and one year. Such investments are generally held until maturity and are measured at their amortised cost.

Subsequent recoveries of previously recorded downward value adjustments may be recognised up to the lower of cost or market value at the balance sheet date. The valuation rules prescribed by the Swiss Financial Market Supervisory Authority FINMA are observed.

Assets in derivative financial instruments
Assets in derivative financial instruments include reinsurance contracts or features embedded in reinsurance contracts that fulfil the characteristics of derivative financial instruments and are accounted based on the lower of cost or market principle. However, for back-to-back deals where the Company enters into two identical, but opposite directed derivatives, both derivatives were recorded at market value for the first time in 2017. The effect of this change amounted to CHF 264 million in 2017.

Funds held by ceding companies
Funds held by ceding companies consist mainly of assets that belong to the Company but are withheld by the cedent due to regulatory or legal requirements, or to retain control over investments and reduce a potential credit risk. Assets are initially measured based on the consideration received. Subsequently the funds held by ceding companies are measured at the consideration received or market value of the underlying assets.

Cash and cash equivalents
Cash and cash equivalents include cash at bank, short-term deposits and certain investments in money-market funds with an original maturity of three months or less. Such current assets are held at nominal value.

Reinsurance recoverable on technical provisions retroceded
Reinsurance recoverable on technical provisions represents the retroceded part of the technical provisions. The respective accounting principle per technical provision category is described further under "Technical provisions gross".

Reinsurance business written by branches of the Company that is retroceded to affiliated companies, which is then retroceded back to the Company is presented on a gross basis.

Tangible assets
Tangible assets are carried at cost, less individually scheduled straight-line depreciation over their useful lives. Items of minor value are not capitalised.

Deferred acquisition costs
Deferred acquisition costs consist principally of commissions and are related to the generation of new reinsurance business. Property and casualty deferred acquisition costs are generally amortised in proportion to premiums earned. Life and health deferred acquisition costs will run-off on a prudent basis, typically linearly in a shorter term than the liabilities. The amortisation schedule can also be determined to be in line with the expected profits of the business, so no statutory profits are shown until the deferred acquisition costs are fully amortised.

Intangible assets
Intangible assets, consisting of capitalised development costs for software for internal use, are measured at cost less straight-line amortisation over the estimated useful life of software.

Premiums and other receivables from reinsurance
Premiums and other receivables from reinsurance are carried at nominal value after deduction of known credit risks if applicable. The position mainly consists of receivables from insurance companies and brokers.

Other assets
Other assets include deferred expenses on retroactive reinsurance policies, which are amortised through earnings over the expected claims-paying period, as well as rights in connection with securities lending collateral and reverse repurchase transactions, which are carried at nominal value.

Technical provisions gross
Unpaid claims are recognised based on information provided by clients and own estimates of expected claims experience, which are drawn from empirical statistics. These include provisions for claims incurred but not reported. Unpaid insurance obligations are set aside at the full expected amount of future payment.

Liabilities for life and health policy benefits are determined on the basis of actuarially calculated present values taking experience into account. Generally a prospective gross premium valuation is applied. The method is prospective as it takes into account expected future cash flows inherent in the reinsurance contract from the valuation date until expiry of the contract obligations. The assumptions used in the valuation are based on estimates drawn from experience studies. Cash flows include primarily premiums, claims, commissions, profit commissions and expenses, with provisions for adverse deviations added for prudence to reflect the uncertainties of the underlying best estimates. The gross premium valuation approach may result in a negative liability provision, which is typically set to zero at the reinsurance treaty level, with the exception of a prudent allowance for deferred acquisition costs on financing treaties. A loss ratio approach can be taken, mainly for Group business, and for individual risk premium lump sum business, where either information is limited or a gross premium valuation is not possible due to practical constraints.

Modified coinsurance arrangements are treated on a gross basis with the separate recognition of the funds withheld, as well as the liabilities for life and health policy benefits.

Premiums written relating to future periods are stated as unearned premiums and are normally calculated by statistical methods. The accrual of commissions is determined proportionally and is reported under "Deferred acquisition costs".

Provisions for profit commissions are based on contractual agreements with clients and depend on the results of reinsurance treaties.

The equalisation provision for property and casualty business is established to achieve a protection of the balance sheet and to break peaks of incurred claims in individual financial years with an exceptionally high claims burden by releasing appropriate amounts from the provision.

The shares of technical provisions pertaining to retroceded business are determined or estimated according to the contractual agreement and the underlying gross business data per treaty.

Liabilities and consideration in connection with portfolio transfers are established through the respective lines in the income statement. Outstanding claims and liabilities are recorded as change in unpaid claims and life and health benefits, with the consideration being recognised as claims paid. The impact on unearned premiums is established through the change in unearned premiums, with the respective consideration accounted as premiums written. Any profit or loss on the portfolio transfer is reflected in other reinsurance revenues or other reinsurance expenses, respectively.

For property and casualty transfers of retroactive treaties, the initial set up of assets and liabilities is accounted as a balance sheet transaction.

Reinsurance business written by branches of the Company that is retroceded to affiliated companies, which is then retroceded back to the Company is presented on a gross basis.

Non-technical provisions
The provision for currency fluctuation comprises the net effect of foreign exchange gains and losses arising from the yearly revaluation of the opening balance sheet and the translation adjustment of the income statement from average to closing exchange rates at year-end. These net impacts are recognised in the income statement over a time period of up to nine years, based on the average duration of the technical provisions. Where the provision for currency fluctuation is insufficient to absorb net foreign exchange losses for the financial year, the provision for currency fluctuation is reduced to zero and the excess foreign exchange loss is recognised in the income statement.

Other provisions are determined according to business principles and are based on estimated needs and the tax provision in accordance with tax regulations.

Debt
Debt is held at redemption value.

Liabilities from derivative financial instruments
Liabilities from derivative financial instruments are generally maintained at the highest commitment amount as per a balance sheet date during the life of the underlying contracts. Premiums received in respect of derivative financial instruments are generally not realised until expiration or settlement of the contract and are deferred respectively.

Included in this position are reinsurance contracts or features embedded in reinsurance contracts that fulfil the characteristics of derivative financial instruments. For such contracts, premiums received may be recognised as income prior to contract expiration or settlement, in cases where the recorded commitment has already reached the maximum liability amount potentially payable under the terms of the respective contracts. Decreases in the liability amounts prior to expiration or settlement are only recognised as income for contracts for which hedging instruments are in place.

Funds held under reinsurance treaties
Funds held under reinsurance treaties mainly contain cash deposits withheld from retrocessionaires, which are stated at redemption value.

Reinsurance balances payable
Reinsurance balances payable are held at redemption value. The position mainly consists of payables to insurance companies and brokers.

Other liabilities
Other liabilities include rights in connection with repurchase agreements and securities lending transactions, which are held at redemption value.

Subordinated liabilities
Subordinated liabilities are held at redemption value.

Deposit arrangements
Contracts which do not meet risk transfer requirements, defined as transferring a reasonable probability of a significant loss to the reinsurer, are accounted as deposit arrangements. Deposit amounts are adjusted for payments received and made, as well as for amortisation or accretion of interest.

Allocated investment return
The allocated investment return contains the calculated interest generated on the investments covering the technical provisions. The interest rate reflects the currency-weighted, five-year average yield on five-year government bonds.

Management expenses
Overall management expenses are allocated to the reinsurance business, the investment business and to other expenses on an imputed basis.

Foreign exchange transaction gains and losses
Foreign exchange gains and losses arising from foreign exchange transactions are recognised in the income statement and reported net in other expenses or other income, respectively.

Capital and indirect taxes
Capital and indirect taxes related to the financial year are included in other expenses. Value-added taxes are included in the respective expense lines in the income statement.

Income tax expense
The income tax expense relates to the financial year under report.

2 Investment result

CHF millions	Income	Value readjustments	Realised gains	2017 Total
Investment income				
Investments in subsidiaries and affiliated companies	978	–	0	978
Fixed income securities	515	226	162	903
Loans	216	0	–	216
Mortgages	5	–	–	5
Equity securities	20	9	173	202
Shares in investment funds	*573*	*63*	*88*	*724*
Short-term investments	*18*	*–*	*0*	*18*
Alternative investments	*39*	*19*	*0*	*58*
Other investments	630	82	88	800
Income from investment services	142	–	–	142
Investment income	**2 506**	**317**	**423**	**3 246**

CHF millions	Expenses	Value adjustments	Realised losses	2017 Total
Investment expenses				
Investments in subsidiaries and affiliated companies	–	0	–	0
Fixed income securities	–	0	–66	–66
Loans	–	–7	–	–7
Equity securities	–	–19	–9	–28
Shares in investment funds	*–*	*–7*	*–*	*–7*
Short-term investments	*–*	*–*	*–2*	*–2*
Alternative investments	*–*	*–11*	*0*	*–11*
Other investments	–	–18	–2	–20
Investment management expenses	–196	–	–	–196
Investment expenses	**–196**	**–44**	**–77**	**–317**
Allocated investment return				**–383**
Investment result				**2 546**

CHF millions	Income	Value readjustments	Realised gains	2016 Total
Investment income				
Investments in subsidiaries and affiliated companies	290	–	2	292
Fixed income securities	648	115	193	956
Loans	218	–	–	218
Mortgages	6	–	–	6
Equity securities	22	10	61	93
Shares in investment funds	*11*	–	*20*	*31*
Short-term investments	*11*	–	*1*	*12*
Alternative investments	*30*	*7*	*16*	*53*
Other investments	52	7	37	96
Income from investment services	118	–	–	118
Investment income	1 354	132	293	1 779

CHF millions	Expenses	Value adjustments	Realised losses	2016 Total
Investment expenses				
Investments in subsidiaries and affiliated companies	–	–181	–	–181
Fixed income securities	–	–215	–44	–259
Loans	–	–	–	–
Equity securities	–	–20	–6	–26
Shares in investment funds	–	*–28*	–	*–28*
Short-term investments	–	–	*–1*	*–1*
Alternative investments	–	*–21*	*0*	*–21*
Other investments	–	–49	–1	–50
Investment management expenses	–179	–	–	–179
Investment expenses	–179	–465	–51	–695

Allocated investment return	–297
Investment result	787

3 Assets and liabilities from reinsurance

CHF millions	Gross	Retro	2016 Net	Gross	Retro	2017 Net
Deferred acquisition costs	2334	–739	1595	**2833**	**–613**	**2220**
Premiums and other receivables from reinsurance	8414	59	8473[3]	**11491**	**1124**	**12615[3]**
Deferred expenses on retroactive reinsurance policies[2]	209	–29	180	**231**	**–22**	**209**
Unpaid claims	39365	–4732[1]	34633	**46096**	**–5877[1]**	**40219**
Liabilities for life and health policy benefits	15728	–1707[1]	14021	**15872**	**–5592[1]**	**10280**
Unearned premiums	7147	–2223[1]	4924	**8027**	**–1863[1]**	**6164**
Provisions for profit commissions	538	–46[1]	492	**582**	**–48[1]**	**534**
Equalisation provision	1544	–	1544	**221**	**–**	**221**
Reinsurance balances payable	1278	1620	2898[3]	**3768**	**2610**	**6378[3]**

[1] Reported under "Reinsurance recoverable on technical provisions retroceded" on page 112.
[2] Reported under "Other assets" on page 112.
[3] In 2017, the netting process of assets and liabilities from reinsurance towards the same counterparty was decommissioned. This led to a gross-up of the receivables from reinsurance as well as the reinsurance balances payable. The effect of such a gross-up in 2016 was CHF 2 645 million.

4 Change in shareholder's equity

CHF millions	Share capital	Legal capital reserves	Legal profit reserves	Voluntary profit reserves	Retained earnings brought forward	Net income for the financial year	Total shareholder's equity
Shareholder's equity 1.1.2016	34	6778	650	272	94	6432	14260
Allocations relating to the dividend paid				6500	–68	–6432	–
Dividend for the financial year 2015				–2933			–2933
Net income for the financial year						875	875
Shareholder's equity 31.12.2016	34	6778	650	3839	26	875	12202
Shareholder's equity 1.1.2017	34	6778	650	3839	26	875	12202
Allocations relating to the dividend paid				850	25	–875	–
Dividend for the financial year 2016				–2590			–2590
Net income for the financial year						1209	1209
Shareholder's equity 31.12.2017	**34**	**6778**	**650**	**2099**	**51**	**1209**	**10821**

5 Share capital and major shareholder

The share capital of the Company amounted to CHF 34 million. It is divided into 344 052 565 registered shares, each with a nominal value of CHF 0.10. The shares were fully paid-in and held directly by Swiss Re Ltd. As of 31 December 2017 and 2016, the Company was a fully owned subsidiary of Swiss Re Ltd.

6 Contingent liabilities

Swiss Reinsurance Company Ltd has issued a number of guarantees to several of its subsidiaries and affiliated companies in support of their business activities by securing either their overall capital positions or specific transactions. These guarantees are generally not limited by a nominal amount but rather by the exposure of the underlying business.

The Company is part of the Swiss Re value added tax (VAT) group and is therefore jointly liable for existing and future VAT claims from the Swiss Federal Tax Administration.

In addition, as a component of the Swiss Re Group's financing structure, the Company has guaranteed CHF 974 million (2016: CHF 1 016 million) of debt issued by certain affiliated companies and letter of credit facilities benefiting various subsidiaries and affiliated companies of which no amount was utilised as of 31 December 2017 and 2016, respectively.

7 Securities lending and repurchase agreements

To enhance the performance of its investment portfolio, the Company enters into securities lending and repurchase transactions. In the context of such transactions, securities are transferred to the counterparty.

Further, the Company performs the role of the collateral clearer for the Swiss Re Group, centrally managing collateral for the Swiss Re Group, providing funding diversification, enabling secured cash investment and yield enhancement. As such the Company acts as principal in collateral transactions, borrowing securities from its affiliated companies and entering into lending and borrowing as well as repurchase and reverse repurchase agreements with third parties. As a matter of policy, the Company requires that collateral, consisting of cash or securities, is provided to cover the assumed counterparty risk associated with such transactions.

An overview of the fair value of securities transferred under securities lending and repurchase agreements is provided in the following table as of 31 December:

CHF millions	2016	**2017**
Fair value of securities transferred to third parties	16 336	**15 439**
Fair value of securities transferred to affiliated companies	16 066	**18 657**
Total	32 402	**34 096**

8 Security deposits

To secure the technical provisions at the 2017 balance sheet date, securities with a book value of CHF 12 927 million (2016: CHF 14 009 million) were deposited in favour of ceding companies, of which CHF 3 513 million (2016: CHF 4 088 million) referred to affiliated companies.

9 Commitments

As a participant in limited investment partnerships, the Company commits itself to making available certain amounts of investment funding, callable by the partnerships in general for periods of up to 10 years. As of 31 December 2017, total commitments remaining uncalled were CHF 1 305 million (2016: CHF 495 million).

The Company has entered into subordinated funding facilities with its parent company Swiss Re Ltd under which the Company has the right, among others, to issue subordinated notes to Swiss Re Ltd at any time. For its various rights, the Company owes Swiss Re Ltd an unconditional fixed commitment fee on the total facility amount, payable in annual instalments. Annually, the Company receives a partial reimbursement of the commitment fee on the undrawn facility amount. As of 31 December 2017 and 2016, the facilities were undrawn.

An overview of the subordinated funding facilities is provided in the following table:

Instrument	Lender	Issued in	Maturity	Currency	Nominal value in millions	Commitment fee (on total facility amount)	Partial reimbursement of commitment fee (on undrawn amount)
Subordinated funding facility	Swiss Re Ltd	2015	2030	USD	700	5.80%	2.22%
Subordinated funding facility	Swiss Re Ltd	2016	2036	USD	400	6.10%	2.13%
Subordinated funding facility	Swiss Re Ltd	2016	2032	USD	800	5.68%	1.95%

10 Leasing contracts

Total off-balance-sheet commitments from operating leases for the next five years and thereafter are as follows:

CHF millions	2016	2017
2017	11	–
2018	6	**39**
2019	4	**38**
2020	4	**29**
2021	4	**7**
After 2022	6	**8**
Total operating leases, net	35	**121**

These operating lease commitments pertain to the non-cancellable contract periods and refer primarily to office and apartment space rented by the Company.

11 Investments in subsidiaries and affiliated companies

As of 31 December 2017 and 2016, Swiss Reinsurance Company Ltd held the following direct and material indirect investments in subsidiaries and affiliated companies:

As of 31 December 2017	Country	City	% Equity interest	% Voting interest
European Finance Reinsurance Company Ltd	Barbados	Bridgetown	100%	100%
Gasper Funding Corporation	Barbados	Bridgetown	100%	100%
Swiss Brokers México, Intermediario de Reaseguro, S.A. de C.V.	Mexico	Mexico City	100%	100%
Swiss Re Australia Ltd	Australia	Sydney	100%	100%
Swiss Re Life & Health Australia Limited	Australia	Sydney	100%	100%
Swiss Re Brasil Resseguros S.A.	Brazil	São Paulo	99%	99%
Swiss Re Investments Ltd	Switzerland	Zurich	100%	100%
Swiss Re Life and Health Africa Limited	South Africa	Cape Town	100%	100%
Swiss Re Mexico Servicios, S. de R.L. de C.V.	Mexico	Mexico City	98%	98%
Swiss Re Private Equity Partners SGP Limited	Cayman Islands	George Town	100%	100%
Swiss Re Reinsurance Holding Company Ltd	Switzerland	Zurich	100%	100%
Swiss Pillar Investments Ltd	Switzerland	Zurich	100%	100%
Swiss Re America Holding Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Capital Markets Corporation	United States (USA)	New York	100%	100%
Swiss Re Financial Markets Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Financial Products Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Life & Health America Holding Company	United States (USA)	Wilmington	100%	100%
Swiss Re Treasury (US) Corporation	United States (USA)	Wilmington	100%	100%
Swiss Reinsurance America Corporation	United States (USA)	Armonk	100%	100%
Swiss Re Asia Holding Pte. Ltd.	Singapore	Singapore	100%	100%
Swiss Re Asia Pte. Ltd.[1]	Singapore	Singapore	100%	100%
Swiss Re Europe Holdings S.A.	Luxembourg	Luxembourg	100%	100%
Swiss Re Europe S.A.	Luxembourg	Luxembourg	100%	100%
Swiss Re Germany GmbH	Germany	Munich	94%	94%
Swiss Re Services Limited	United Kingdom (UK)	London	100%	100%
Swiss Re Services India Private Ltd	India	Mumbai	100%	100%
Swiss Re Treasury (UK) Plc	United Kingdom (UK)	London	100%	100%
Swiss Reinsurance America Corporation - Escritório de Representação no Brasil Ltda	Brazil	São Paulo	20%	20%
Swiss Reinsurance Company Ltd - Escritório de Representação no Brasil Ltda	Brazil	São Paulo	93%	93%
Swiss Re Finance Limited	Cayman Islands	George Town	65%	100%
Vietnam National Reinsurance Corporation	Vietnam	Hanoi	25%	25%

[1] Former Swiss Re Asia Ltd, Switzerland, Zurich, prior to its redomiciliation to Singapore as at 31 December 2017

As of 31 December 2016	Country	City	% Equity interest	% Voting interest
Elips Life AG	Liechtenstein	Triesen	100%	100%
European Finance Reinsurance Company Ltd	Barbados	Bridgetown	100%	100%
Gasper Funding Corporation	Barbados	Bridgetown	100%	100%
Swiss Brokers México, Intermediario de Reaseguro, S.A. de C.V.	Mexico	Mexico City	100%	100%
Swiss Re Australia Ltd	Australia	Sydney	100%	100%
Swiss Re Life & Health Australia Limited	Australia	Sydney	100%	100%
Swiss Re Brasil Resseguros S.A.	Brazil	São Paulo	99%	99%
Swiss Re GB Limited	United Kingdom (UK)	London	100%	100%
Swiss Re Investments Ltd	Switzerland	Zurich	100%	100%
Swiss Re Life and Health Africa Limited	South Africa	Cape Town	100%	100%
Swiss Re Private Equity Partners SGP Limited	Cayman Islands	George Town	100%	100%
Swiss Re Reinsurance Holding Company Ltd	Switzerland	Zurich	100%	100%
Swiss Re America Holding Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Capital Markets Corporation	United States (USA)	New York	100%	100%
Swiss Re Financial Markets Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Financial Products Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Life & Health America Holding Company	United States (USA)	Wilmington	100%	100%
Swiss Re Treasury (US) Corporation	United States (USA)	Wilmington	100%	100%
Swiss Reinsurance America Corporation	United States (USA)	Armonk	100%	100%
Swiss Re Asia Ltd	Switzerland	Zurich	100%	100%
Swiss Re Europe Holdings S.A.	Luxembourg	Luxembourg	100%	100%
Swiss Re Europe S.A.	Luxembourg	Luxembourg	100%	100%
Swiss Re Germany GmbH	Germany	Munich	94%	94%
Swiss Re Services Limited	United Kingdom (UK)	London	100%	100%
Swiss Re Services India Private Ltd	India	Mumbai	100%	100%
Swiss Re Treasury (UK) Plc	United Kingdom (UK)	London	100%	100%
Swiss Reinsurance America Corporation - Escritório de Representação no Brasil Ltda	Brazil	São Paulo	20%	20%
Swiss Reinsurance Company Ltd - Escritório de Representação no Brasil Ltda	Brazil	São Paulo	93%	93%
Swiss Re Finance Limited	Cayman Islands	George Town	65%	100%
Vietnam National Reinsurance Corporation	Vietnam	Hanoi	25%	25%

12 Debt and subordinated liabilities

The Company had outstanding debt and subordinated liabilities at the 2017 balance sheet date of CHF 8 888 million (2016: CHF 8 245 million). Thereof CHF 7 510 million (2016: CHF 5 978 million) were due within one to five years and CHF 1 378 million (2016: CHF 2 267 million) were due after five years.

As of 31 December 2017, the following public placed debentures were outstanding:

Instrument	Issued in	Currency	Nominal in millions	Interest rate	Maturity/ First call in	Book value CHF millions
Subordinated bond	2012	USD	750	8.250%	2018	731
Subordinated bond	2013	USD	750	6.375%	2019	731
Subordinated bond	2007	GBP	500	6.302%	2019	659
Subordinated bond	2013	CHF	175	7.500%	2020	175
Subordinated bond	2012	EUR	500	6.625%	2022	585
Senior bond	2014	CHF	250	1.000%	2024	250
Subordinated bond	2015	EUR	750	2.600%	2025	878
Senior bond	2015	CHF	250	0.750%	2027	250

13 Deposit arrangements

The following balances were related to deposit accounted reinsurance contracts:

CHF millions	2016	**2017**
Other reinsurance revenues	96	**66**
Claims paid and claim adjustment expenses gross	1	**3**
Claims paid and claim adjustment expenses retroceded	0	**2**
Operating costs	–3	**–3**
Other reinsurance expenses	–47	**–38**
Funds held by ceding companies	110	**86**
Premiums and other receivables from reinsurance	514	**842**
Reinsurance balances payable	923	**1 385**

14 Claims on and obligations towards affiliated companies

CHF millions	2016	**2017**
Loans	8 743	**8 025**
Funds held by ceding companies	13 533	**15 051**
Premiums and other receivables from reinsurance	2 719[1]	**6 798[1]**
Other receivables	86	**21**
Other assets	1 941[2]	**1 908[2]**
Debt	2 605[3]	**4 629[3]**
Liabilities from derivative financial instruments	300	**149**
Funds held under reinsurance treaties	3 664	**7 913**
Reinsurance balances payable	1 861[1]	**5 335[1]**
Other liabilities	4 937[4]	**4 604[4]**

[1] In 2017, the netting process of assets and liabilities from reinsurance towards the same counterparty was decommissioned. This led to a gross-up of the receivables from reinsurance as well as the reinsurance balances payable. The effect of such a gross-up for intercompany balances in 2016 was CHF 2 377 million.
[2] Thereof at the 2017 balance sheet date CHF 2 million (2016: none) were towards the parent company Swiss Re Ltd.
[3] Thereof at the 2017 balance sheet date CHF 2 720 million (2016: CHF 2 178 million) were towards the parent company Swiss Re Ltd.
[4] Thereof at the 2017 balance sheet date CHF 733 million (2016: CHF 127 million) were towards the parent company Swiss Re Ltd.

15 Release of undisclosed reserves

In 2017, no net release of undisclosed reserves (2016: CHF 253 million).

16 Obligations towards employee pension fund

As of 31 December 2017, other liabilities included CHF 1 million (2016: CHF 1 million) payable to the employee pension fund.

17 Personnel information

As of 31 December 2017, the Company employed a worldwide staff at an average of 1 930 (2016: 1 846) full time equivalents. Personnel expenses for the 2017 financial year amounted to CHF 440 million (2016: CHF 440 million).

18 Accrued income from subsidiaries and affiliated companies

Accrued income mainly consists of the dividend income of CHF 974 million from Swiss Re Reinsurance Holding Company Ltd in accordance with the resolution of the shareholder's Annual General Meeting of 12 March 2018. Based on the economic view this dividend, to be paid by the subsidiary in 2018, was already recorded in the Company's financial statements as of 2017.

19 Extraordinary income and expenses

The 2017 net income contains extraordinary expenses of CHF 226 million, which was caused by a correction of an overstatement of the 2016 income statement in the same amount. The overstatement in 2016 resulted from an incorrect recognition of foreign exchange rate adjustments on cross currency interest rate swaps through the income statement instead of adjusting only the notional of these derivative financial instruments on the balance sheet.

20 Auditor's fees

In 2017, the Swiss Re Group incurred total auditor's fees of CHF 30 million (2016: CHF 33 million) and additional fees of CHF 2 million (2016: CHF 4 million), of which CHF 3 million (2016: CHF 3 million) and CHF 1 million (2016: CHF 1 million), respectively, incurred for the Company.

21 Subsequent events

In the context of the "Tax Cuts and Jobs Act of 2017" in the US, the Company is currently reassessing its intercompany structure with the affiliated companies Swiss Reinsurance America Corporation and Swiss Re Life & Health America Inc and their subsidiaries. It is expected that several intragroup retrocession agreements will either be recaptured, novated or not renewed in the course of 2018. While the financial impact can not be quantified at the date of approving the Company's 2017 financial statements, it is assumed that significant impacts to the Company's balance sheet and income statement are expected in 2018.

Proposal for allocation of disposable profit

The Board of Directors proposes to the Annual General Meeting of the Company, to be held on 26 March 2018, to approve the following allocation and payment of a cash dividend of USD 1 950 million, which must not exceed CHF 2 100 million, translated into CHF at spot rate on the settlement date. The cash dividend is paid to its sole shareholder, Swiss Re Ltd, out of voluntary profit reserves on 28 March 2018.

In order to comply with the Swiss Code of Obligations, dividends paid in foreign currencies must meet the capital protection requirements in CHF. In addition, maximum amounts in CHF must be approved by the Annual General Meeting. The Board of Directors proposes to set this maximum amount to CHF 2 100 million, which shall be fully funded from the disposable profit as presented in the table below.

As such the effective cash dividend amount, translated into CHF at spot rate on the settlement date, must not exceed CHF 2 100 million. This threshold of CHF 2 100 million is presented in the below table and reflects the maximum amount in CHF to be paid.

Retained earnings

CHF millions	2016	2017
Retained earnings brought forward	26	**51**
Net income for the financial year	875	**1 209**
Disposable profit	901	**1 260**
Allocation to voluntary profit reserves	–850	**–1 200**
Retained earnings after allocation	51	**60**

Voluntary profit reserves

CHF millions	2016	2017
Voluntary profit reserves brought forward	3 839	**2 099**
Allocation from retained earnings	850	**1 200**
Voluntary profit reserves before proposed cash dividend	4 689	**3 299**
Proposed cash dividend (maximal amount in CHF of the proposed dividend in USD translated into CHF)	–2 590[2]	**–2 100[1]**
Voluntary profit reserves after proposed cash dividend	2 099	**1 199**

[1] The translation into CHF at spot rate on the settlement date may result in a lower cash dividend by a respective amount on the settlement date.
[2] The 2016 figure was recalculated based on the final cash dividend converted into CHF at spot rate on the settlement date.

Zurich, 14 March 2018

Report of the statutory auditor

Report of the statutory auditor
to the General Meeting of
Swiss Reinsurance Company Ltd
Zurich

Report of the statutory auditor on the Financial Statements
As statutory auditor, we have audited the financial statements of Swiss Reinsurance Company Ltd (the 'Company'), which comprise the income statement, balance sheet and notes (pages 110 to 125) for the year ended 31 December 2017.

Board of Directors' Responsibility
The Board of Directors is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the Company's Articles of Association. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the Company's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control system. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements for the year ended 31 December 2017 comply with Swiss law and the Company's Articles of Association.

Report on a key audit matter based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgement, 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.

Unobservable or interpolated inputs used for the valuation of certain investments

Key audit matter

Investments are generally valued at lower of cost or market value (prudence principle). In addition to the lower of cost or market value, amortised cost must also be considered for fixed income securities, which is in accordance with the Insurance Supervision Ordinance.

Accordingly market values have to be observed to assess the appropriate application of the prudence principle.

Investment valuation continues to be an area with inherent risk for investments with no observable market price. The risk is not the same for all investment types and is greatest for those listed below, where the investments are more difficult to value because quoted prices are not always available and valuation requires unobservable or interpolated inputs and complex valuation models:

- Fixed income securitised products
- Fixed income mortgage and asset-backed securities
- Public placements and infrastructure loans
- Private equities
- Derivatives
- Insurance-related financial products

How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls around the valuation models for certain investments, including the Company's independent price verification process. We also tested management's data integrity and change management controls relating to the valuation models.

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

- Challenging the Company's methodology and assumptions, in particular, the yield curves, discounted cash flows, perpetual growth rates and liquidity premiums used in the valuation models.
- Comparing the assumptions used against appropriate benchmarks and investigating significant differences.
- Engaging our own valuation experts to perform independent valuations of selected investments.

On the basis of the work performed, we consider the assumptions used by management to be appropriate and that investments are properly valued as of 31 December 2017.

Risk of inappropriate Swiss statutory financial reporting over investments

Key audit matter

Based on the derivative financial instrument error in 2016, which led to an overstatement of the income statement by CHF 226 million (as disclosed in note 19), we identified a significant risk in regards of inappropriate Swiss statutory financial reporting over investments. There is a risk of overstatement of the net income due to inappropriate treatment of investment gains based on the statutory accounting principles.

How our audit addressed the key audit matter

In relation to the matters set out opposite, our testing procedures included the following:

- Assessing and testing of the US GAAP to statutory walks.
- Critically reviewing the derivative portfolio as well as the gains and losses booked for US GAAP and statutory reporting.
- Testing application of adjusted accounting principles in regards of the back-to-back derivatives which are now valued at fair value in line with US GAAP.
- Assessing appropriate disclosure of error correction and change in accounting principles.
- Testing of the investment reconciliations.

On the basis of the work performed, we note proper reporting of the investment balances as of 31 December 2017.

Valuation of actuarially determined Property & Casualty ('P&C') loss reserves

Key audit matter

Valuation of actuarially determined P&C 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 and methods to estimate these reserves. Actuarially determined P&C loss reserves require significant judgement relating to certain factors and assumptions. Among the most significant reserving assumptions are the A-priori loss ratios, which typically drive the estimates of P&C loss reserves for the most recent contract years. Other key factors and assumptions include, but are not limited to, interest rates, inflation trends, claims trends, regulatory decisions, historical claims information and the growth of exposure.

In particular, loss reserves for 'long tail' lines of business (for example, the Liability, US Asbestos and Environmental, Motor Liability and Workers' Compensation portfolios) are generally more difficult to project. This is due to the protracted period over which claims can be reported as well as the fact that claim settlements are often less frequent but of higher magnitude. They are also subject to greater uncertainties than claims relating to 'short-tail' business. Long-tailed lines of business generally rely on many assumptions based on experts' judgement.

Moreover, not all natural catastrophe events and significant man-made losses can be modelled using traditional actuarial methodologies, which increases the degree of judgement needed in establishing reserves for these events.

How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls relating to the application of the actuarial methodology, data collection and analysis, as well as the processes for determining the assumptions used by management in the valuation of actuarially determined P&C loss reserves.

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

- Testing the completeness and accuracy of underlying data utilised by the Company's actuaries in estimating P&C loss reserves.
- Applying IT audit techniques to analyse claims through the recalculation of claims triangles.
- Involving PwC's internal actuarial specialists to independently test management's estimates of P&C loss reserves, and evaluate the reasonableness of the methodology and assumptions used by comparing them with recognised actuarial practices and by applying our industry knowledge and experience.
- Performing independent projections of selected product lines. For these product lines, we compared our calculations of projected reserves with those of the Company taking into account the available corroborating and contrary evidence and challenging management's assumptions as appropriate.
- Assessing the process and related judgements of management in relation to natural catastrophes and other large losses, including using our industry knowledge to assess the reasonableness of market loss estimates and other significant assumptions.
- Performing sensitivity testing to determine the impact of selected key assumptions.
- Evaluating the appropriateness of any significant adjustments made by management to P&C loss reserve estimates.

On the basis of the work performed, we consider that the methodology, methods, assumptions and underlying data used in the valuation of actuarially determined P&C loss reserves are reasonable and in line with financial reporting requirements and accepted industry practice.

Valuation of actuarially determined Life & Health ('L&H') reserves

Key audit matter

The Company's valuation of liabilities for L&H policy benefits and policyholder account balances involves complex judgements about future events affecting the business. Actuarial assumptions selected by the Company with respect to interest rates, investment returns, mortality, morbidity, lapse in coverage, longevity, persistency, expenses, stock market volatility and future policyholder behaviour may result in material impacts on the valuation of L&H reserves. The methodology and methods used can also have a material impact on the valuation of actuarially determined L&H reserves.

The valuation of actuarially determined L&H reserves depends on the use of complex models. The Company continues to migrate actuarial data and models from legacy systems and/or spreadsheets to new actuarial modelling systems. At the same time, management is validating models to ensure that new models are fit for use. Moving from one modelling platform to another is a complex and time-consuming process, frequently taking several years. Any resulting adjustments to reserves need to be assessed in terms of appropriateness and classified as changes in estimates or as an out-of-period adjustment.

How our audit addressed the key audit matter

We assessed and tested the design and operating effectiveness of selected key controls relating to the application of actuarial methodology, data collection and analysis, as well as the processes for determining the assumptions used by management in the valuation of actuarially determined L&H reserves.

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

- Testing the completeness and accuracy of the underlying data by vouching against the source documentation.
- Testing the migration of actuarial data from legacy systems and/or spreadsheets to the new actuarial systems for completeness and accuracy.
- Performing independent model validation procedures, including detailed testing of models, independent recalculations and back testing.
- Involving our own life insurance actuarial specialists to test the methodology and assumptions used by management, with particular consideration of industry studies, the Company's experience and management's liability adequacy test procedures.
- Challenging the Company's methodology and methods, focusing on changes to L&H actuarial methodology and methods during the year, by applying our industry knowledge and experience to check whether the methodology and methods are consistent with recognised actuarial practices and reporting requirements.

On the basis of the work performed, we consider that the methodology, methods, assumptions and underlying data used in the valuation of actuarially determined L&H reserves to be reasonable and in line with financial reporting requirements and accepted industry practice.

Impairment assessment of investments in subsidiaries and affiliated companies

Key audit matter

The Company applies group valuation method when a close business link exists and a similarity in nature is given in accordance with Swiss Accounting Law.

In performing impairment assessments of investments in subsidiaries and affiliated companies, management uses considerable judgement in determining valuation-method inputs.

The impairment assessment is considered a key audit matter due to the considerable judgement in the valuation model and inputs applied.

How our audit addressed the key audit matter

In relation to the matter set out opposite, our substantive testing procedures included the following:

- Assessing whether the group valuation method is still appropriate.
- Assessing whether the method applied for each subsidiary is reasonable.
- Understanding changes in the approach and discussing these with management to ensure they are in accordance with our own expectation based on our knowledge of the business and industry.
- Engaging our internal valuation specialists to assist in the testing of key assumptions and inputs.

On the basis of the work performed, we consider the methods and assumption used by management to be reasonable. We agree with their conclusion that the book values for all investments in subsidiaries is recoverable.

Report on other legal requirements

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

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 proposal for allocation of disposable profit complies with Swiss law and the Company's Articles of Association. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers Ltd

Alex Finn

Bret M. Griffin

Alex Finn
Audit expert
Auditor in charge

Bret Griffin

Zurich, 14 March 2018

Cautionary note on forward-looking statements

Certain statements and illustrations contained herein are forward-looking. These statements (including as to plans, objectives, targets and trends) and illustrations provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to a historical fact or current fact.

Forward-looking statements typically are identified by words or phrases such as "anticipate", "assume", "believe", "continue", "estimate", "expect", "foresee", "intend", "may increase" and "may fluctuate" and similar expressions or by future or conditional verbs such as "will", "should", "would" and "could". These forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause the Group's actual results of operations, financial condition, solvency ratios, capital or liquidity positions or prospects to be materially different from any future results of operations, financial condition, solvency ratios, capital or liquidity positions or prospects expressed or implied by such statements. Such factors include, among others:

- further instability affecting the global financial system and developments related thereto;
- further deterioration in global economic conditions;
- the Group's ability to maintain sufficient liquidity and access to capital markets, including sufficient liquidity to cover potential recapture of reinsurance agreements, early calls of debt or debt-like arrangements and collateral calls due to actual or perceived deterioration of the Group's financial strength or otherwise;
- the effect of market conditions, including the global equity and credit markets, and the level and volatility of equity prices, interest rates, credit spreads, currency values and other market indices, on the Group's investment assets;
- changes in the Group's investment result as a result of changes in its investment policy or the changed composition of its investment assets, and the impact of the timing of any such changes relative to changes in market conditions;
- uncertainties in valuing credit default swaps and other credit-related instruments;
- possible inability to realise amounts on sales of securities on the Group's balance sheet equivalent to their mark-to-market values recorded for accounting purposes;
- the outcome of tax audits, the ability to realise tax loss carryforwards and the ability to realise deferred tax assets (including by reason of the mix of earnings in a jurisdiction or deemed change of control), which could negatively impact future earnings;
- the possibility that the Group's hedging arrangements may not be effective;
- the lowering or loss of financial strength or other ratings of one or more Group companies, and developments adversely affecting the Group's ability to achieve improved ratings;
- the cyclicality of the reinsurance industry;
- uncertainties in estimating reserves;

- uncertainties in estimating future claims for purposes of financial reporting, particularly with respect to large natural catastrophes, as significant uncertainties may be involved in estimating losses from such events and preliminary estimates may be subject to change as new information becomes available;
- the frequency, severity and development of insured claim events;
- acts of terrorism and acts of war;
- mortality, morbidity and longevity experience;
- policy renewal and lapse rates;
- extraordinary events affecting the Group's clients and other counterparties, such as bankruptcies, liquidations and other credit-related events;
- current, pending and future legislation and regulation affecting the Group or its ceding companies;
- legal actions or regulatory investigations or actions, including those in respect of industry requirements or business conduct rules of general applicability;
- changes in accounting standards;
- significant investments, acquisitions or dispositions, and any delays, unexpected costs or other issues experienced in connection with any such transactions;
- changing levels of competition; and
- operational factors, including the efficacy of risk management and other internal procedures in managing the foregoing risks.

These factors are not exhaustive. The Group operates in a continually changing environment and new risks emerge continually. Readers are cautioned not to place undue reliance on forward-looking statements. The Group undertakes no obligation to publicly revise or update any forward-looking statements, whether as a result of new information, future events or otherwise.

This communication is not intended to be a recommendation to buy, sell or hold securities and does not constitute an offer for the sale of, or the solicitation of an offer to buy, securities in any jurisdiction, including the United States. Any such offer will only be made by means of a prospectus or offering memorandum, and in compliance with applicable securities laws.

Note on risk factors

General impact of adverse market conditions

The operations of Swiss Reinsurance Company Ltd ("Swiss Re") and its subsidiaries (collectively, the "Group") as well as its investment returns are subject to market volatility and macro-economic factors, which are outside of the Group's control and are often inter-related.

Growth forecasts among the principal global economies remain uneven and uncertain in an environment of elevated political uncertainty. The planned withdrawal of the United Kingdom from the European Union has created uncertainty not only for the United Kingdom but for the rest of the European Union, and negotiations over withdrawal will likely continue to contribute to volatility and pose significant challenges for the European Union and the United Kingdom. The long-term effects of a withdrawal of the United Kingdom from the European Union will depend in part on any agreements the United Kingdom makes to retain access to the single market within the European Economic Area (EEA) following such withdrawal, the scope and nature of which currently remain highly uncertain. As China's economy undergoes structural changes, recent near-term growth stabilisation may be reversed in the context of a broader economic slowdown were it to occur. The foregoing may be exacerbated by geopolitical tensions, fears over security and migration, and uncertainty created generally by the policy pronouncements that have been, and may in the coming months be, announced by the US administration on a range of trade, security, foreign policy, environmental protection and other issues having global implications, as well as by the consequences of the implementation of such policy pronouncements.

With fewer options available to policymakers and concerns generally over the absence of realistic confidence-building measures, and with heightened risk that volatility or depressed conditions in one sector, one market, one country or one region could have far broader implications, volatility can be expected to continue. Further adverse developments or the continuation of adverse trends that, in turn, have a negative impact on financial markets and economic conditions could limit the Group's ability to access the capital markets and bank funding markets, could adversely affect the ability of counterparties to meet their obligations to the Group and could adversely affect the confidence of the ultimate buyers of reinsurance.

Any of the foregoing factors, developments and trends could have an adverse effect on the Group's investment results, which in the current low interest rate environment and soft (albeit hardening) insurance cycle could have a material adverse effect on the Group's overall results, make it difficult to determine the value of certain assets in the Group's portfolio, make it more difficult to acquire suitable investments to meet its risk and return criteria and otherwise have a material adverse effect on its business and operations.

Regulatory changes

Swiss Re and its subsidiaries operate in a highly regulated environment. The regulatory regimes to which members of the Group are subject have changed significantly in recent years and are expected to continue to evolve. During this period, there has been a noticeable trend to extend the scope of reforms and oversight, which initially targeted banks, beyond such institutions to cover reinsurance operations.

While some regulation is national in scope, the global nature of the Group's business means that its operations are subject in effect to a patchwork of global, national and regional standards. Swiss Re and its subsidiaries are subject to applicable regulation in each of the jurisdictions in which they conduct business, particularly Switzerland, the United States, the United Kingdom, Luxembourg and Germany. In addition, the Group could be affected by regulatory changes or developments affecting the overall Swiss Re group, comprising Swiss Re Ltd ("SRL") and its consolidated subsidiaries, of which the Group is a part (the "Swiss Re Group").

While certain regulatory processes are designed in part to foster convergence and achieve recognition of group supervisory schemes, the Group continues to face risks of extra-territorial application of regulations, particularly as to group supervision and group solvency requirements. In addition, regulators in jurisdictions beyond those where the Group has core operations increasingly are playing a far greater oversight role, requiring more localised resources and, despite a predominantly local focus, also raise issues of a cross-border nature. Furthermore, evolving regulatory schemes and requirements may be inconsistent or may conflict with each other, thereby subjecting the Group, particularly in light of the increasing focus on legal entities in isolation, to higher compliance and legal costs, as well as the possibility of higher operational, capital and liquidity costs. The effect of these trends could be exacerbated to the extent that the current political environment results in a return to more bilateral, and less harmonised, cross-border regulatory efforts.

While in recent years there has been an evolving focus on classifying certain insurance companies as systemically important, it is unclear whether and, if so, in what form reforms will be enacted. The Swiss Re Group could be designated as a global systemically important insurer ("G-SIIs") by the Financial Stability Board, or as a systemically important non-bank financial company by the Financial Stability Oversight Council ("FSOC") in the United States. The International Association of Insurance Supervisors, an international body that represents insurance regulators and supervisors, has published and since refined the methodology for identifying G-SIIs. Were the Group to be designated as a G-SII, it could be subject to one or both of the resulting regimes, including capital standards (the basic capital requirement for G-SIIs), which would have various implications for the Group, including additional compliance costs and reporting obligations as well as heightened regulatory scrutiny in various jurisdictions. In addition, the Group ultimately will be subject to oversight of its Swiss regulator in respect of recovery and resolution planning.

The Group cannot predict which legislative and/or regulatory initiatives will be enacted or promulgated, what the scope and content of these initiatives ultimately will be, when they will be effective and what the implications will be for the industry, in general, and for the Group, in particular. The Group may be subject to changes in views of its regulators in respect of the models that the Group uses for capital and solvency purposes, and could be adversely affected if, for example, it is required to use standard models rather than internal models. Generally, legal and regulatory changes could have a material impact on the Group's business. Uncertainty regarding the future relationship between the United Kingdom and the European Union could also impact the legislative and/or regulatory regimes to which the Group is subject, both in the United Kingdom and in the European Union.

In addition, regulatory changes could occur in areas of broader application, such as competition policy and tax laws. Changes in tax laws, for example, could increase the taxes the Group pays, the attractiveness of products offered by the Group, the Group's investment activities and the value of deferred tax assets. Any number of these changes could apply to the Group and its operations. Recently enacted changes to the US tax regime is prompting the Group to consider modifications to its operating model for its US business. These changes, or inconsistencies between the various regimes that apply to the Group, could increase the costs of doing business (including due to increased capital requirements), reduce access to liquidity, limit the scope of current or future business or affect the competitive balance, or could make reinsurance less attractive to primary insurers.

Market risk

Volatility and disruption in the global financial markets could expose the Group to significant financial and capital markets risk, including changes in interest rates, credit spreads, equity prices and foreign currency exchange rates, which may adversely impact the Group's financial condition, results of operations, liquidity and capital position. The Group's exposure to interest rate risk is primarily related to the market price and cash flow variability associated with changes in interest rates. In general, a low interest rate environment, such as the one experienced in recent years, poses significant challenges to the reinsurance industry, with earnings capacity under stress unless lower investment returns from fixed income assets can be offset by lower combined ratios or higher returns from other asset classes. Exposure to credit spreads primarily relates to market price and cash flow variability associated with changes in credit spreads. When credit spreads widen, the net unrealised loss position of the Group's investment portfolio can increase, as could other-than-temporary impairments.

The Group is exposed to changes in the level and volatility of equity prices, as they affect the value of equity securities themselves as well as the value of securities or instruments that derive their value from a particular equity security, a basket of equity securities or a stock index. The Group is also subject to equity price risk to the extent that the values of life-related benefits under certain products and life contracts, most notably variable annuity business, are tied to financial market values; to the extent market values fall, the financial exposure on guarantees related to these contracts would increase to the extent this exposure is not hedged. While the Group has an extensive hedging programme covering its existing variable annuity business that it believes is sufficient, certain risks cannot be hedged, including actuarial risks, basis risk and correlation risk. Exposure to foreign exchange risk arises from exposures to changes in spot prices and forward prices as well as to volatile movements in exchange rates.

These risks can have a significant effect on investment returns and market values of securities positions, which in turn may affect both the Group's results of operations and financial condition. The Group continues to focus on asset-liability management for its investment portfolio, but pursuing even this strategy has its risks – including possible mismatch – that in turn can lead to reinvestment risk. The Group seeks to manage the risks inherent in its investment portfolio by repositioning the portfolio from time to time, as needed, and to reduce risk and fluctuations through the use of hedges and other risk management tools.

Credit risk

If the credit markets were again to deteriorate and further asset classes were to be impacted, the Group could experience losses. Changes in the market value of the underlying securities and other factors impacting their price could give rise to market value losses. If the credit markets were to deteriorate again, the Group could also face write-downs in other areas of its portfolio, including other structured instruments, and the Group and its counterparties could face difficulties in valuing credit-related instruments. Differences in opinion with respect to valuations of credit-related instruments could result in legal disputes among the Group and its counterparties as to their respective obligations, the outcomes of which are difficult to predict and could be material.

Liquidity risks

The Group's business requires, and its clients expect, that it has sufficient capital and sufficient liquidity to meet its reinsurance obligations, and that this would continue to be the case following the occurrence of any foreseeable event or series of events, including extreme catastrophes, that would trigger insurance or reinsurance coverage obligations. The Group's uses of funds include obligations arising in its reinsurance businesses (including claims and other payments as well as insurance provision repayments due to portfolio transfers, securitisations and commutations), which may include large and unpredictable claims (including catastrophe claims), funding of capital requirements and operating costs, payment of principal and interest on outstanding indebtedness and funding of acquisitions. The Group also has unfunded capital commitments in its private equity and hedge fund investments, which could result in funding obligations at a time when it is subject to liquidity constraints. In addition, the Group has potential collateral requirements in connection with a number of reinsurance arrangements, the amounts of which may be material and the meeting of which could require the Group to liquidate cash equivalents or other securities.

The Group manages liquidity and funding risks by focusing on the liquidity stress that is likely to result from extreme capital markets scenarios or from extreme loss events or combinations of the two. Generally, the ability to meet liquidity needs could be adversely impacted by factors that the Group cannot control, such as market dislocations or interruptions, adverse economic conditions, severe disruption in the financial and worldwide credit markets and the related increased constraints on the availability of credit; changes in interest rates, foreign exchange rates and credit spreads; or by perceptions among market participants of the extent of the Group's liquidity needs.

Unexpected liquidity needs (including to meet collateral calls) could require the Group to incur indebtedness or liquidate investments or other assets. The Group may not be able to secure new sources of liquidity or funding, should projected or actual liquidity fall below levels it requires. The ability to meet liquidity needs through asset sales may be constrained by market conditions and the related stress on valuations, and through third-party funding may be limited by constraints on the general availability of credit and willingness of lenders to lend. In addition, the Group's ability to meet liquidity needs may also be constrained by regulatory requirements that require regulated entities to maintain or increase regulatory capital, or that restrict intra-group transactions, the timing of dividend payments from subsidiaries or the fact that certain assets may be encumbered or otherwise non-tradable. Failure to meet covenants in lending arrangements could give rise to collateral-posting or defaults, and further constrain access to liquidity. Finally, any adverse ratings action could trigger a need for further liquidity (for example, by triggering termination provisions or collateral delivery requirements in contracts to which the Group is a party) at a time when the Group's ability to obtain liquidity from external sources is limited by such ratings action.

Counterparty risks

The Group is exposed to the risk of defaults, or concerns about defaults, by its counterparties. Securities trading counterparties, counterparties under swaps and other derivative contracts, and financial intermediaries may default on their obligations due to bankruptcy, insolvency, lack of liquidity, adverse economic conditions, operational failure, fraud or other reasons, which could have a material adverse effect on the Group.

The Group could also be adversely affected by the insolvency of, or other credit constraints affecting, counterparties in its reinsurance operations. Moreover, the Group could be adversely affected by liquidity issues at ceding companies or at third parties to whom the Group has retroceded risk, and such risk could be exacerbated to the extent any such exposures are concentrated

Risks relating to credit rating downgrades

Ratings are an important factor in establishing the competitive position of reinsurance companies. Third-party rating agencies assess and rate the financial strength of reinsurers and insurers. These ratings are intended to measure a company's ability to repay its obligations and are based upon criteria established by the rating agencies. Ratings may be revised downward or revoked at the sole discretion of the rating agencies.

The Group's ratings reflect the current opinion of the relevant rating agencies. One or more of its ratings could be downgraded or withdrawn in the future, and market conditions could increase the risk of downgrade. Rating agencies may increase the frequency and scope of ratings reviews, revise their criteria or take other actions that may negatively impact the Group's ratings and/or the ratings of its key legal entities. In addition, changes to the process or methodology of issuing ratings, or the occurrence of events or developments affecting the Group, could make it more difficult for the Group to achieve improved ratings which it would otherwise have expected.

As claims paying and financial strength ratings are key factors in establishing the competitive position of reinsurers, a decline in ratings alone could make reinsurance provided by the Group less attractive to clients relative to reinsurance from competitors with similar or stronger ratings. A decline in ratings could also cause the loss of clients who are required by policy or regulation to purchase reinsurance only from reinsurers with certain ratings. Certain larger reinsurance contracts contain terms that would allow the ceding companies to cancel the contract if the Group's ratings or those of its subsidiaries are downgraded beyond a certain threshold. Moreover, a decline in ratings could impact the availability and terms of unsecured financing and obligate the Group to provide collateral or other guarantees in the course of its business or trigger early termination of funding arrangements, potentially resulting in a need for additional liquidity. As a ratings decline could also have a material adverse impact on the Group's costs of borrowing or ability to access the capital markets, the adverse implications of a downgrade could be more severe.

Legal and regulatory risks

In the ordinary course of business, the Group is involved in lawsuits, arbitrations and other formal and informal dispute resolution procedures, the outcomes of which determine the Group's rights and obligations under insurance, reinsurance and other contractual agreements. From time to time, the Group may institute, or be named as a defendant in, legal proceedings, and the Group may be a claimant or respondent in arbitration proceedings. These proceedings could involve coverage or other disputes with ceding companies, disputes with parties to which the Group transfers risk under reinsurance arrangements, disputes with other counterparties or other matters. The Group cannot predict the outcome of any of the foregoing, which could be material for the Group.

The Group is also involved, from time to time, in investigations and regulatory proceedings, which could result in adverse judgments, settlements, fines and other outcomes. The number of these investigations and proceedings involving the financial services industry has increased in recent years, and the potential scope of these investigations and proceedings has also increased, not only in respect of matters covered by the Group's direct regulators, but also in respect of compliance with broader business conduct rules, including those in respect of market abuse, bribery, money laundering, trade sanctions and data protection and privacy. Aggressive tax enforcement is becoming a higher priority for many tax authorities and the Group also is subject to audits and challenges from time to time by tax authorities, which could result in increases in tax costs, changes to internal structures and interest and penalties. Tax authorities may also actively pursue additional taxes based on retroactive changes to tax laws. The Group could be subject to risks arising from alleged, or actual, violations of any of the foregoing, and could also be subject to risks arising from potential employee misconduct, including non-compliance with internal policies and procedures and malfeasance, such as undertaking or facilitating cyber attacks on internal systems. Substantial legal liability could materially adversely affect the Group's business, financial condition or results of operations or could cause significant reputational harm, which could seriously affect its business.

Insurance, operational and other risk

As part of the Group's ordinary course operations, the Group is subject to a variety of risks, including risks that reserves may not adequately cover future claims and benefits; risks that catastrophic events (including natural disasters, such as hurricanes, windstorms, floods, earthquakes, and man-made disasters, such as acts of terrorism and other disasters such as industrial accidents, explosions, and fires, and pandemics) are inherently unpredictable in terms of both their frequency and severity and have exposed, and may expose, the Group to unexpected large losses (and related uncertainties in estimating future claims in respect of such events); changes in the insurance industry that affect ceding companies, particularly those that further increase their sensitivity to counterparty risk; competitive conditions (including as a result of consolidation and the availability of significant levels of alternative capacity); cyclicality of the industry; risks related to emerging claims and coverage issues; macro developments giving rise to emerging risks, such as climate change and technological developments (including greater exposure to cyber risks (where accumulation risk is yet to be fully understood, but also risks relating to wearable health devices and autonomous cars), which could have a range of consequences from operational disruption, to loss of proprietary or customer data, to greater regulatory burdens and potential liability); risks arising from the Group's dependence on policies, procedures and expertise of ceding companies; risks related to investments in emerging markets; and risks related to the failure of, or attacks directed at, the Group's operational systems and infrastructure, including its information technology networks and systems. Any of the foregoing, as well as the occurrence of future risks that the Group's risk management procedures fail to identify or anticipate, could have a material adverse effect on the Group, and could also give rise to reputational risk.

Use of models; accounting matters

The Group is subject to risks relating to the preparation of estimates and assumptions that management uses, including as part of its risk models as well as those that affect the reported amounts of assets, liabilities, revenues and expenses in the Group's financial statements, including assumed and ceded business. For example, the Group estimates premiums pending receipt of actual data from ceding companies, which actual data could deviate from the estimates. In addition, particularly with respect to large natural catastrophes, it may be difficult to estimate losses, and preliminary estimates may be subject to a high degree of uncertainty and change as new information becomes available. Deterioration in market conditions could have an adverse impact on assumptions used for financial reporting purposes, which could affect possible impairment of present value of future profits, fair value of assets and liabilities, deferred acquisition costs or goodwill. Moreover, regulators could require the use of standard models instead of permitting the use of internal models. To the extent that management's estimates or assumptions prove to be incorrect, it could have a material impact on underwriting results (in the case of risk models) or on reported financial condition or results of operations, and such impact could be material.

The Group's results may be impacted by changes in accounting standards, or changes in the interpretation of accounting standards. Changes in accounting standards could impact future reported results or require restatement of past reported results. The Group's results may also be impacted if regulatory authorities take issue with any conclusions the Group may reach in respect of accounting matters.

The Group uses non-GAAP financial measures in its external reporting. These measures are not prepared in accordance with US GAAP or any other comprehensive set of accounting rules or principles, and should not be viewed as substitutes for measures prepared in accordance with US GAAP. Moreover, these may be different from, or otherwise inconsistent with, non-GAAP financial measures used by other companies. These measures have inherent limitations, are not required to be uniformly applied and are not audited.

Risks related to the Swiss Re corporate structure

Following the realignment of the corporate structure of SRL and the creation of separate business units in 2012, the asset base, liquidity position, capital profile and other characteristics of the Group of relevance to its counterparties changed. Swiss Re is a wholly owned subsidiary of SRL, and the Group represents only two of the four principal operating segments of the Swiss Re Group. Capital, funding, reserve and cost allocations are made at the Swiss Re Group level across the four operating segments based principally on business plans as measured against US GAAP and economic value management metrics. Decisions at the Swiss Re Group level in respect of the broader Swiss Re Group could have an adverse impact on the Group's financial condition, including its capital and liquidity levels, as well as on its SST ratio. As part of the Swiss Re Group's focus on efficient capital allocation, the Group expects to be paying dividends to SRL. Decisions on dividends payable by each of the operating segments, including the Group, are made at the Swiss Re Group level based on legal entity, regulatory, capital and liquidity considerations. The Swiss Re Group's structure provides flexibility in the way in which it finances operations and the Swiss Re Group expects that its structure will continue to evolve over time. In 2017, the Swiss Re Group entered into a transaction with MS&AD Insurance Group Holdings Inc. ("MS&AD") pursuant to which MS&AD agreed to invest in closed books segment of the Swiss Re Group's Life Capital business unit. While to date the Group remains wholly owned by SRL, in the future, the Swiss Re Group may partner (for purposes of acquisitions or otherwise) with other investors in, or within, one or more of its business units or sub-groups within its business units (including the Group), which, subject to applicable regulatory requirements, have the potential to alter its historical approaches taken in respect of capital, liquidity, funding and/or dividends, as well as other governance matters, including strategy for such business unit or sub-group and board composition at the relevant corporate level. The Group's structure could also change in connection with acquisitions.

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

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