

Swiss Reinsurance Company
Consolidated
2016 Annual Report

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Income statement

For the years ended 31 December

USD millions	Note	2015	2016
Revenues			
Gross premiums written	4	28 556	31 667
Net premiums written	4	26 720	29 715
Change in unearned premiums		-581	-722
Premiums earned	3	26 139	28 993
Fee income from policyholders	3	145	129
Net investment income – non-participating business	7	2 787	2 728
Net realised investment gains/losses – non-participating business ¹	7	1 028	1 592
Net investment result – unit-linked business	7	42	15
Other revenues		57	41
Total revenues		30 198	33 498
Expenses			
Claims and claim adjustment expenses	3	-7 893	-10 299
Life and health benefits	3	-8 559	-9 560
Return credited to policyholders		-386	-358
Acquisition costs	3	-5 865	-6 382
Operating expenses ²		-2 538	-2 473
Total expenses before interest expenses		-25 241	-29 072
Income before interest and income tax expense		4 957	4 426
Interest expenses ²		-608	-581
Income before income tax expense		4 349	3 845
Income tax expense	11	-524	-648
Net income before attribution of non-controlling interests		3 825	3 197
Income/loss attributable to non-controlling interests		-1	-18
Net income after attribution of non-controlling interests		3 824	3 179
Interest on contingent capital instruments		-68	-68
Net income attributable to common shareholder		3 756	3 111

¹ Total impairments for the years ended 31 December of USD 51 million in 2015 and USD 71 million in 2016, respectively, were fully recognised in earnings.

² Letter of credit fees of USD 55 million for the year ended 31 December 2015 have been reclassified from "Operating expenses" to "Interest expenses".

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

Statement of comprehensive income

For the years ended 31 December

USD millions	2015	2016
Net income before attribution of non-controlling interests	3 825	3 197
Other comprehensive income, net of tax:		
Change in unrealised investment gains/losses	-1 843	451
Change in other-than-temporary impairment	-7	5
Change in foreign currency translation	-876	-125
Change in adjustment for pension benefits	-191	-46
Other comprehensive income attributable to non-controlling interests		3
Total comprehensive income before attribution of non-controlling interests	908	3 485
Interest on contingent capital instruments	-68	-68
Comprehensive income attributable to non-controlling interests	-1	-21
Total comprehensive income attributable to common shareholder	839	3 396

Reclassification out of accumulated other comprehensive income

For the years ended 31 December

2015 USD millions	Unrealised investment gains/losses ¹	Other-than- temporary impairment ¹	Foreign currency translation	Adjustment from pension benefits ²	Accumulated other comprehensive income
Balance as of 1 January	3 462	-3	-4 261	-762	-1 564
Change during the period	-1 385	-9	-727	-309	-2 430
Amounts reclassified out of accumulated other comprehensive income	-1 201			70	-1 131
Tax	743	2	-149	48	644
Balance as of period end	1 619	-10	-5 137	-953	-4 481

2016 USD millions	Unrealised investment gains/losses ¹	Other-than- temporary impairment ¹	Foreign currency translation	Adjustment from pension benefits ²	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

¹ Reclassification adjustment included in net income is presented in "Net realised investment gains/losses – non-participating business".

² 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

As of 31 December

Assets

USD millions	Note	2015	2016
Investments	7, 8, 9		
Fixed income securities:			
Available-for-sale (including 10 839 in 2015 and 9 056 in 2016 subject to securities lending and repurchase agreements) (amortised cost: 2015: 59 137; 2016: 60 490)		61 134	63 250
Trading (including 1 729 in 2015 and 1 871 in 2016 subject to securities lending and repurchase agreements)		2 896	2 695
Equity securities:			
Available-for-sale (including 439 in 2015 and 19 in 2016 subject to securities lending and repurchase agreements) (cost: 2015: 2 876; 2016: 2 063)		3 091	2 258
Trading		68	60
Policy loans, mortgages and other loans		3 832	4 618
Investment real estate		1 550	1 711
Short-term investments (including 417 in 2015 and 1 798 in 2016 subject to securities lending and repurchase agreements)		4 662	7 527
Other invested assets		7 861	7 217
Investments for unit-linked business (equity securities trading: 818 in 2015 and 548 in 2016)		818	548
Total investments		85 912	89 884
Cash and cash equivalents (including 181 in 2015 and 747 in 2016 subject to securities lending)		5 398	5 830
Accrued investment income		670	657
Premiums and other receivables		9 747	10 987
Reinsurance recoverable on unpaid claims and policy benefits	3	4 523	4 083
Funds held by ceding companies		10 668	8 854
Deferred acquisition costs	6	5 084	5 756
Acquired present value of future profits	6	1 721	1 543
Goodwill		3 756	3 663
Income taxes recoverable		112	125
Deferred tax assets	11	5 269	4 922
Other assets		2 331	2 307
Total assets		135 191	138 611

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

Liabilities and equity

USD millions	Note	2015	2016
Liabilities			
Unpaid claims and claim adjustment expenses		49 718	51 073
Liabilities for life and health policy benefits	8	16 779	17 629
Policyholder account balances		5 358	5 653
Unearned premiums		8 044	8 653
Funds held under reinsurance treaties		3 041	2 315
Reinsurance balances payable		1 858	1 774
Income taxes payable		272	452
Deferred and other non-current tax liabilities	11	6 771	6 631
Short-term debt	10	4 105	3 697
Accrued expenses and other liabilities		8 964	10 315
Long-term debt	10	9 674	7 805
Total liabilities		114 584	115 997
Equity			
Contingent capital instruments	10	1 102	1 102
Common shares CHF 0.10 par value			
2015: 344 052 565; 2016: 344 052 565 shares authorised and issued		32	32
Additional paid-in capital		8 730	8 695
Shares in Swiss Re Ltd, net of tax		-21	-19
Accumulated other comprehensive income:			
Net unrealised investment gains/losses, net of tax		1 619	2 070
Other-than-temporary impairment, net of tax		-10	-5
Foreign currency translation, net of tax		-5 137	-5 262
Adjustment for pension and other post-retirement benefits, net of tax		-953	-999
Total accumulated other comprehensive income		-4 481	-4 196
Retained earnings		15 222	15 339
Shareholder's equity		20 584	20 953
Non-controlling interests		23	1 661
Total equity		20 607	22 614
Total liabilities and equity		135 191	138 611

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	2015	2016
Contingent capital instruments		
Balance as of 1 January	1 102	1 102
Issued		
Balance as of period end	1 102	1 102
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	8 823	8 730
Share-based compensation	16	-55
Realised gains/losses on treasury shares	-109	20
Balance as of period end	8 730	8 695
Shares in Swiss Re Ltd, net of tax		
Balance as of 1 January	-10	-21
Change of shares in Swiss Re Ltd	-11	2
Balance as of period end	-21	-19
Net unrealised investment gains/losses, net of tax		
Balance as of 1 January	3 462	1 619
Changes during the period	-1 843	451
Balance as of period end	1 619	2 070
Other-than-temporary impairment, net of tax		
Balance as of 1 January	-3	-10
Changes during the period	-7	5
Balance as of period end	-10	-5
Foreign currency translation, net of tax		
Balance as of 1 January	-4 261	-5 137
Changes during the period	-876	-125
Balance as of period end	-5 137	-5 262
Adjustment for pension and other post-retirement benefits, net of tax		
Balance as of 1 January	-762	-953
Changes during the period	-191	-46
Balance as of period end	-953	-999
Retained earnings		
Balance as of 1 January	14 421	15 222
Net income after attribution of non-controlling interests	3 824	3 179
Interest on contingent capital instruments, net of tax	-68	-68
Dividends on common shares and dividends-in-kind	-2 955	-2 994
Balance as of period end	15 222	15 339
Shareholder's equity	20 584	20 953
Non-controlling interests		
Balance as of 1 January	22	23
Change during the period ¹		866
Transactions with non-controlling interests		751
Income attributable to non-controlling interests	1	18
Comprehensive income		3
Balance as of period end	23	1 661
Total equity	20 607	22 614

¹ As of 1 January 2016 the Group adopted the new accounting guidance, ASU 2015-02 "Amendments to the Consolidation Analysis", which required the additional inclusion of non-controlling interests of USD 866 million.

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

Statement of cash flow

For the years ended 31 December

USD millions	2015	2016
Cash flows from operating activities		
Net income attributable to common shareholder	3 756	3 111
Add net income attributable to non-controlling interests	1	18
Adjustments to reconcile net income to net cash provided/used by operating activities:		
Depreciation, amortisation and other non-cash items	455	380
Net realised investment gains/losses	-1 032	-1 575
Income from equity-accounted investees, net of dividends received	70	88
Change in:		
Technical provisions and other reinsurance assets and liabilities, net	-200	1 914
Funds held by ceding companies and under reinsurance treaties	927	1 005
Reinsurance recoverable on unpaid claims and policy benefits	654	408
Other assets and liabilities, net	-152	-43
Income taxes payable/recoverable	-478	115
Trading positions, net	319	-26
Net cash provided/used by operating activities	4 320	5 395
Cash flows from investing activities		
Fixed income securities:		
Sales	39 166	32 233
Maturities	3 721	3 422
Purchases	-47 708	-36 665
Net purchases/sales/maturities of short-term investments	5 106	-2 957
Equity securities:		
Sales	1 256	2 497
Purchases	-2 010	-1 380
Securities purchased/sold under agreement to resell/repurchase, net	-2 046	763
Cash paid/received for acquisitions/disposal and reinsurance transactions, net	177	
Net purchases/sales/maturities of other investments	2 623	1 060
Net purchases/sales/maturities of investments held for unit-linked business	32	135
Net cash provided/used by investing activities	317	-892
Cash flows from financing activities		
Policyholder account balances, unit-linked business:		
Deposits	21	13
Withdrawals	-93	-170
Issuance/repayment of long-term debt	200	-91
Issuance/repayment of short-term debt	-1 945	-1 471
Purchase/sale of shares in Swiss Re Ltd	-2	2
Transactions with non-controlling interests		733
Dividends paid to parent	-2 961	-3 004
Net cash provided/used by financing activities	-4 780	-3 988
Total net cash provided/used	-143	515
Effect of foreign currency translation	-314	-83
Change in cash and cash equivalents	-457	432
Cash and cash equivalents as of 1 January	5 855	5 398
Cash and cash equivalents as of 31 December	5 398	5 830

Interest paid was USD 709 million and USD 741 million (thereof USD 57 million and USD 51 million for letter of credit fees) for the years ended 31 December 2015 and 2016, respectively. Tax paid was USD 981 million and USD 515 million for the years ended 31 December 2015 and 2016, 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

Swiss Reinsurance Company Ltd (“SRZ”) and its subsidiaries (collectively, the “Group”) are 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 2016, 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 being 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 or for securities where the Group has decided to apply the fair value option.

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 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. Impairment in value, 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 instrument 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 a hedge 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/or health business. The initial value is determined actuarially by discounting estimated future gross profits as a measure of the value of business acquired. 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. 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, and estimated gross profits are updated quarterly. The carrying value of PVFP is reviewed periodically for indicators of impairment in value. Adjustments to reflect impairment in value are recognised in earnings 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 of the asset. 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 recognizes 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 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 at available for sale 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, i.e. 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, 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 recognized 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 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 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 2016, the Group had a Leadership Performance Plan, stock option plans, restricted shares, and a Global Share Participation Plan. These plans are described in more detail in Note 13. 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.

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.

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 15 March 2017. 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 new requirements are effective for annual and interim periods beginning after 15 December 2017, and may be applied retrospectively to each prior period presented or with a cumulative effect adjustment to retained earnings as of the date of initial application. The Group is currently assessing the impact of the new requirements.

In August 2014, the FASB issued ASU 2014-13, "Measuring the Financial Assets and the Financial Liabilities of a Consolidated Collateralized Financing Entity – a consensus of the FASB Emerging Issues Task Force", an update to topic 810, "Consolidation". The ASU applies to entities that are required to consolidate a collateralised financing entity (CFE) under the variable interest entity (VIE) consolidation guidance when the entity measures all financial assets and financial liabilities of the CFE at fair value, with changes in fair value recorded in earnings. Before the ASU became effective, if an entity would measure the fair value of assets and liabilities separately following applicable US GAAP rules, the aggregate fair value might have differed. The new guidance allows the use of the more observable of the fair value of the financial assets or the fair value of the financial liabilities of the CFE to measure both. The Group adopted ASU 2014-13 on 1 January 2016. The adoption did not have a material effect on the Group's financial statements.

In August 2014, the FASB issued ASU 2014-15, "Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern", an update to subtopic 205-40, "Presentation of Financial Statements – Going Concern". The ASU requires an entity's management to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date the financial statements are available to be issued. When management identifies such conditions or events, footnote disclosures need to be provided on the relevant conditions and events identified and on whether management's plans to mitigate those conditions or events will alleviate the substantial doubt. The Group adopted ASU 2014-15 as of year-end 2016. The adoption did not have an impact on the Group's financial statements.

In November 2014, the FASB issued ASU 2014-16, "Determining Whether the Host Contract in a Hybrid Financial Instrument Issued in the Form of a Share Is More Akin to Debt or to Equity – a consensus of the FASB Emerging Issues Task Force", an update to topic 815, "Derivatives and Hedging". The ASU provides guidance on how to assess whether or not a derivative embedded in an instrument in the legal form of a share must be bifurcated and accounted for separately from its host contract. Entities are required to use "the whole instrument approach" to determine whether the nature of the host contract in a hybrid

instrument issued in the form of a share is more akin to debt or to equity. Under this approach, an issuer or investor considers all stated and implied substantive terms and features of a hybrid instrument when determining the nature of the host contract. No single term or feature will necessarily determine the nature of the host contract. The Group adopted ASU 2014-16 on 1 January 2016. The adoption did not have a material effect on the Group's financial statements.

In January 2015, the FASB issued ASU 2015-01, "Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items", an update to subtopic 225-20, "Income Statement—Extraordinary and Unusual Items". The ASU eliminates the separate presentation of extraordinary items, net of tax and the related earnings per share. Extraordinary items were events and transactions that were distinguished by their unusual nature and by the infrequency of their occurrence. The ASU does not affect the requirement to disclose material items that are unusual in nature or infrequently occurring. The Group adopted ASU 2015-01 on 1 January 2016 on a prospective basis. The adoption did not have a material effect on the Group's financial statements.

In February 2015, the FASB issued ASU 2015-02, "Consolidation: Amendments to the Consolidation Analysis", an amendment to topic 810, "Consolidation". ASU 2015-02 (i) eliminates the indefinite deferral of the consolidation requirements for certain investment companies and similar entities, (ii) modifies how to evaluate partnerships and other entities under the VIE framework, (iii) eliminates the presumption that a general partner should consolidate a limited partnership, (iv) modifies consolidation analysis, particularly for decision-maker fee arrangements and related party relationships, (v) excludes from the scope of consolidation assessment the entities that are, or operate similar to, money market funds registered under the US Investment Company Act of 1940. The Group adopted ASU 2015-02 on 1 January 2016 following the modified retrospective method. The modified retrospective method does not require the restatement of prior periods. The adoption did not have a material effect on the Group's financial statements; however, it led to an increase in VIEs disclosed in Note 16 Variable interest entities.

In April 2015, the FASB issued ASU 2015-03, "Simplifying the Presentation of Debt Issuance Costs", an update to subtopic 835-30, "Interest – Imputation of Interest". The ASU changes the presentation of debt issuance costs in financial statements by requiring that an entity presents such costs in the balance sheet as a direct deduction from the related debt liability rather than as an asset. Amortisation of the costs is reported as interest expense. The Group adopted ASU 2015-03 on 1 January 2016 on a prospective basis. The adoption did not have an impact on the Group's financial statements.

In May 2015, the FASB issued ASU 2015-07, "Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)", an amendment to topic 820, "Fair Value Measurement". ASU 2015-07 removes the requirement to categorise within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. The amendments also remove the requirement to make certain disclosures for all investments that are eligible to be measured at fair value using the net asset value per share practical expedient. Rather, those disclosures are limited to investments for which the entity has elected to measure the fair value using that practical expedient. The Group adopted ASU 2015-07 on 1 January 2016 and removed investments for which fair values are measured using the net asset value per share practical expedient from the fair value hierarchy as of the adoption date. The amended disclosures are provided in Note 8 Fair value disclosures.

In May 2015, the FASB issued ASU 2015-09, "Disclosures about Short-Duration Contracts", an update to topic 944, "Financial Services – Insurance". ASU 2015-09 requires an insurance entity to provide additional information about insurance liabilities, including information on the nature, amount, timing, and uncertainty of future cash flows related to insurance liabilities and the effect of those cash flows on the statement of comprehensive income. Requirements include disaggregated incurred and paid claims development information by accident year, on a net basis after risk mitigation, for at least the most recent 10 years with the periods preceding the current period considered required supplementary information. In addition, for each accident year presented in the claims development tables, an insurer has to provide disaggregated information about claim frequency (unless impracticable) and the amounts of incurred but not reported (IBNR) liabilities plus the expected development on reported claims. Required disclosures also include a description of the methods for determining both IBNR and expected development on reported claims as well as information about any significant changes in methods and assumptions used in the computation of the liability for unpaid claims and claim adjustment expenses, including reasons for the changes and the impact of the changes on the most recent reporting period in the financial statements. All aforementioned disclosures have to be provided on an annual basis. In addition, insurance entities must disclose the roll-forward of the liability for unpaid claims and claim adjustment expenses in both interim and annual periods. The Group adopted the annual disclosure requirements as of year-end 2016 which are provided in Note 5. The Group will adopt the interim disclosure requirements for the half-year ending on 30 June 2017.

In September 2015, the FASB issued ASU 2015-16, "Simplifying the Accounting for Measurement-Period Adjustments", an amendment to topic 805, "Business Combinations". ASU 2015-16 is on adjustments to provisional amounts from business combinations during the measurement periods. It requires that an acquirer recognises such adjustments in the reporting period in which the adjustment amounts are determined. Further, the ASU requires that the acquirer records, in the same period's financial statements, the effect on earnings of changes in depreciation, amortisation, or other income effects, if any, as a result of the change to the provisional amounts, calculated as if the accounting had been completed at the acquisition date. The Group adopted this guidance on 1 January 2016. The adoption did not have an effect 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 other ownership interests 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 practicability exception to fair value measurement. The practicability exception can only be applied by certain entities and only to equity investments without a readily determinable fair value. Investments under the practicability exception will be subject to an indicator-based impairment test. 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. Specific exceptions apply to this requirement. 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 AFS in combination with the entity's other DTAs rather than separately from other DTAs. The ASU also introduces changes to disclosure requirements for financial instruments not measured at fair value and introduces new requirements for equity instruments where the practicability exception to fair value measurement is applied. The new requirements are effective for annual and interim periods beginning after 15 December 2017 with early adoption permitted for requirements relating to the presentation of the impact of instrument-specific credit risk on qualifying financial liabilities in other comprehensive income. The Group is currently assessing the impact of the new requirements.

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 the Group for annual and interim periods beginning after 15 December 2018. Early application of the Update is permitted. The Group is currently assessing the impact of the new requirements.

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. The standard requires for financial instruments that are measured at amortised cost and available-for-sale debt securities that an entity recognises as an allowance its estimate of expected credit losses. This standard is effective for the Group 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 should recognise the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The new requirements are effective for the Group for annual and interim periods beginning after 15 December 2017. 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 insurance companies and mutual as well as public sector and governmental entities. As well as 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, the primary life and health insurance business, as well as the remaining non-core activities which have been in run-off since November 2007.

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.

a) Business segments – income statement

For the year ended 31 December

2015 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance ¹	Other ¹	Consolidation	Total
Revenues					
Gross premium written	16 121	11 942	849	-356	28 556
Net premiums written	15 703	10 529	488		26 720
Change in unearned premiums	-613	38	-6		-581
Premiums earned	15 090	10 567	482		26 139
Fee income from policyholders		49	96		145
Net investment income – non-participating business	1 097	1 330	360		2 787
Net realised investment gains/losses – non-participating business	445	311	272		1 028
Net investment result – unit-linked business		42			42
Other revenues	45	4	14	-6	57
Total revenues	16 677	12 303	1 224	-6	30 198
Expenses					
Claims and claim adjustment expenses	-7 892		-1		-7 893
Life and health benefits		-8 012	-547		-8 559
Return credited to policyholders		-60	-326		-386
Acquisition costs	-3 836	-1 965	-64		-5 865
Operating expenses ^{2,3}	-1 198	-774	-566		-2 538
Total expenses before interest expenses	-12 926	-10 811	-1 504	0	-25 241
Income/loss before interest and income tax expense/benefit					
	3 751	1 492	-280	-6	4 957
Interest expenses ²	-272	-323	-19	6	-608
Income/loss before income tax expense/ benefit					
	3 479	1 169	-299	0	4 349
Income tax expense/benefit	-451	-152	79		-524
Net income/loss before attribution of non-controlling interests					
	3 028	1 017	-220	0	3 825
Income/loss attributable to non-controlling interests	-1				-1
Net income/loss after attribution of non-controlling interests					
	3 027	1 017	-220	0	3 824
Interest on contingent capital instruments	-19	-49			-68
Net income/loss attributable to common shareholder					
	3 008	968	-220	0	3 756
Claims ratio in %	52.3				
Expense ratio in %	33.4				
Combined ratio in %	85.7				
Management expense ratio in %		6.5			
Net operating margin in %	22.5	12.2	-22.9		16.4

¹ As of 1 January 2016, the primary life and health insurance business (individual and group) is reported in the segment "Other" instead of the Life & Health Reinsurance segment. Comparative information for 2015 has been adjusted accordingly.

² Letter of credit fees of USD 45 million in Life & Health Reinsurance and USD 10 million in Property & Casualty Reinsurance have been reclassified from "Operating expenses" to "Interest expenses".

³ The Group's new internal service cost framework resulted in a reallocation of operating expenses to "Other" from the business segments. Comparative information for 2015 has been adjusted accordingly.

Business segments – income statement

For the year ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Revenues					
Gross premium 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/loss before interest and income tax expense/benefit	2 890	1 350	218	-32	4 426
Interest expenses	-293	-301	-19	32	-581
Income before income tax expense/benefit	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	-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 – balance sheet

As of 31 December

2015 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance ¹	Other ¹	Consolidation	Total
Total assets ²	78 207	55 337	12 851	-11 204	135 191

¹ As of 1 January 2016, the primary life and health insurance business (individual and group) is reported in the segment "Other" instead of the Life & Health Reinsurance segment. Comparative information for 2015 has been adjusted accordingly.

² The Group's new internal service cost framework resulted in a reallocation of operating expenses to "Other" from the business segments. The resulted impact on the balance sheet has been adjusted accordingly for the comparative information 2015.

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

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b) Property & Casualty Reinsurance business segment – by line of business

For the year ended 31 December

2015 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	6 751	6 802	2 568		16 121
Net premiums written	6 436	6 767	2 500		15 703
Change in unearned premiums	-344	-165	-104		-613
Premiums earned	6 092	6 602	2 396		15 090
Net investment income				1 097	1 097
Net realised investment gains/losses				445	445
Other revenues				45	45
Total revenues	6 092	6 602	2 396	1 587	16 677
Expenses					
Claims and claim adjustment expenses	-2 567	-4 139	-1 186		-7 892
Acquisition costs	-1 198	-2 053	-585		-3 836
Operating expenses ^{1,2}	-664	-385	-149		-1 198
Total expenses before interest expenses	-4 429	-6 577	-1 920	0	-12 926
Income before interest and income tax expense	1 663	25	476	1 587	3 751
Interest expenses ¹				-272	-272
Income before income tax expense	1 663	25	476	1 315	3 479
Claims ratio in %	42.1	62.7	49.5		52.3
Expense ratio in %	30.6	36.9	30.6		33.4
Combined ratio in %	72.7	99.6	80.1		85.7

¹ Letter of credit fees of USD 10 million in Property & Casualty Reinsurance have been reclassified from "Operating expenses" to "Interest expenses".

² The Group's new internal service cost framework resulted in a reallocation of operating expenses to the segment "Other" from the Property & Casualty Reinsurance segment. Comparative information for 2015 has been adjusted accordingly.

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

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

For the year ended 31 December

2015 USD millions	Life	Health	Unallocated	Total ¹
Revenues				
Gross premiums written	8 333	3 609		11 942
Net premiums written	7 048	3 481		10 529
Change in unearned premiums	36	2		38
Premiums earned	7 084	3 483		10 567
Fee income from policyholders	49			49
Net investment income – non-participating business	865	465		1 330
Net realised investment gains/losses – non-participating business	89	42	180	311
Net investment result – unit-linked business	42			42
Other revenues	2	2		4
Total revenues	8 131	3 992	180	12 303
Expenses				
Life and health benefits	-5 539	-2 473		-8 012
Return credited to policyholders	-60			-60
Acquisition costs	-1 260	-705		-1 965
Operating expenses ^{2, 3}	-547	-227		-774
Total expenses before interest expenses	-7 406	-3 405	0	-10 811
Income before interest and income tax expense	725	587	180	1 492
Interest expenses ²			-323	-323
Income/loss before income tax expense	725	587	-143	1 169
Management expense ratio in %	6.8	5.7		6.5
Net operating margin ⁴ in %	9.0	14.7		12.2

¹ As of 1 January 2016, the primary life and health insurance business (individual and group) is reported in the segment "Other" instead of the Life & Health Reinsurance segment. Comparative information for 2015 has been adjusted accordingly.

² Letter of credit fees of USD 45 million in Life & Health Reinsurance have been reclassified from "Operating expenses" to "Interest expenses".

³ The Group's new internal service cost framework resulted in a reallocation of operating expenses to the segment "Other" from the Life & Health Reinsurance segment. Comparative information for 2015 has been adjusted accordingly.

⁴ 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

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	828	451		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	8 688	4 155	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	783	352	215	1 350
Interest expenses			–301	–301
Income/loss before income tax expense	783	352	–86	1 049
Management expense ratio in %	6.2	5.5		6.0
Net operating margin ¹ in %	9.0	8.5		10.4

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 regions for the years ended 31 December

USD millions	2015	2016
Americas	12 748	14 377
Europe (including Middle East and Africa)	9 049	9 742
Asia-Pacific	6 437	6 946
Total	28 234	31 065

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

USD millions	2015	2016
United States	10 020	11 904
United Kingdom	2 773	3 036
China	2 504	2 401
Australia	1 544	1 823
Japan	967	1 094
Germany	1 070	1 044
Canada	1 053	1 009
Switzerland	791	940
Ireland	767	812
France	672	652
Republic of Korea	456	482
Other	5 617	5 868
Total	28 234	31 065

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

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3 Insurance information

Premiums earned and fees assessed against policyholders

For the year ended 31 December

2015 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance ¹	Other ¹	Total
Premiums earned, thereof:				
Direct		39	699	738
Reinsurance	15 614	11 597	139	27 350
Intra-group transactions (assumed and ceded)		351	-351	0
Premiums earned before retrocession to external parties	15 614	11 987	487	28 088
Retrocession to external parties	-524	-1 420	-5	-1 949
Net premiums earned	15 090	10 567	482	26 139
Fee income from policyholders, thereof:				
Direct			5	5
Reinsurance		50	91	141
Ceded		-1		-1
Net fee income	0	49	96	145

Claims and claim adjustment expenses

For the year ended 31 December

2015 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance ¹	Other ¹	Total
Claims paid, thereof:				
Gross claims paid to external parties	-9 665	-9 145	-862	-19 672
Intra-group transactions (assumed and ceded)		-242	242	0
Claims before receivables from retrocession to external parties	-9 665	-9 387	-620	-19 672
Retrocession to external parties	815	1 168	6	1 989
Net claims paid	-8 850	-8 219	-614	-17 683
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:				
Gross - with external parties	1 601	215	34	1 850
Intra-group transactions (assumed and ceded)		-34	34	0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties	1 601	181	68	1 850
Retrocession to external parties	-643	26	-2	-619
Net unpaid claims and claim adjustment expenses; life and health benefits	958	207	66	1 231
Claims and claim adjustment expenses; life and health benefits	-7 892	-8 012	-548	-16 452

Acquisition costs

For the year ended 31 December

2015 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance ¹	Other ¹	Total
Acquisition costs, thereof:				
Gross acquisition costs with external parties	-3 969	-2 138	-135	-6 242
Intra-group transactions (assumed and ceded)		-71	71	0
Acquisition costs before impact of retrocession to external parties	-3 969	-2 209	-64	-6 242
Retrocession to external parties	133	244		377
Net acquisition costs	-3 836	-1 965	-64	-5 865

¹ As of 1 January 2016, the primary life and health insurance business (individual and group) is reported in the segment "Other" instead of the Life & Health Reinsurance segment. Comparative information for 2015 has been adjusted accordingly.

Premiums earned and fees assessed against policyholders

For the year 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
Ceded				0
Net fee income	0	41	88	129

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

Reinsurance assets and liabilities

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

2015 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance ¹	Other ¹	Consolidation ¹	Total
Assets					
Reinsurance recoverable on unpaid claims and policy benefits	2 872	1 652	188	-189	4 523
Deferred acquisition costs	2 051	3 020	13		5 084

Liabilities

Unpaid claims and claim adjustment expenses	39 366	9 468	1 073	-189	49 718
Liabilities for life and health policy benefits		15 472	1 308	-1	16 779
Policyholder account balances		1 368	3 990		5 358

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

¹ As of 1 January 2016, the primary life and health insurance business (individual and group) is reported in the segment "Other" instead of the Life & Health Reinsurance segment. Comparative information for 2015 has been adjusted accordingly.

Reinsurance recoverable on unpaid claims and policy benefits

As of 31 December 2015 and 2016, the Group had a reinsurance recoverable of USD 4 523 million and USD 4 083 million, respectively. The concentration of credit risk is regularly monitored and evaluated. The reinsurance programme with Berkshire Hathaway and subsidiaries accounted for 69% of the Group's reinsurance recoverable as of year-end 2015 and 67% as of year-end 2016.

The Group cedes certain re/insurance contracts to affiliated companies within the Swiss Re Group, but outside of Swiss Reinsurance Company Ltd and its subsidiaries (please refer to Note 14).

Reinsurance receivables

Reinsurance receivables as of 31 December were as follows:

USD millions	2015	2016
Premium receivables invoiced	1 103	1 204
Receivables invoiced from ceded re/insurance business	126	103
Assets arising from the application of the deposit method of accounting and meeting the definition of financing receivables	169	137
Recognised allowance	-36	-35

4 Premiums written

For the years ended 31 December

2015 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance ¹	Other ¹	Consolidation ¹	Total
Gross premiums written, thereof:					
Direct		40	710		750
Reinsurance	16 121	11 546	139		27 806
Intra-group transactions (assumed)		356		-356	0
Gross premiums written	16 121	11 942	849	-356	28 556
Intra-group transactions (ceded)			-356	356	0
Gross premiums written before retrocession to external parties					
	16 121	11 942	493		28 556
Retrocession to external parties	-418	-1 413	-5		-1 836
Net premiums written	15 703	10 529	488	0	26 720

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

¹ As of 1 January 2016, the primary life and health insurance business (individual and group) is reported in the segment "Other" instead of the Life & Health Reinsurance segment. Comparative information for 2015 has been adjusted accordingly.

5 Unpaid claims and claim adjustment expenses

A reconciliation of the opening and closing reserve balances for unpaid claims and claim adjustment expenses for the period is presented as follows:

USD millions	2015 ¹	2016
Balance as of 1 January	52 177	49 718
Reinsurance recoverable	-3 986	-3 202
Deferred expense on retroactive reinsurance	-14	-340
Net balance as of 1 January	48 177	46 176
Incurring related to:		
Current year	17 501	21 622
Prior year	-1 008	-842
Amortisation of deferred expense on retroactive reinsurance and impact of commutations	27	-26
Total incurred	16 520	20 754
Paid related to:		
Current year	-6 785	-7 265
Prior year	-10 898	-11 433
Total paid	-17 683	-18 698
Foreign exchange	-2 463	-1 265
Effect of acquisitions, disposals, new retroactive reinsurance and other items	1 625	1 058
Net balance as of 31 December	46 176	48 025
Reinsurance recoverable	3 202	2 837
Deferred expense on retroactive reinsurance	340	211
Balance as of 31 December	49 718	51 073

¹ The Group has adjusted its presentation of the reconciliation to include both non-life and life and health business lines for the current and the comparative reporting period.

Prior-year development

Non-life claims development during 2016 on prior years continued to be driven by favourable experience on most lines of business. Property includes adverse development from the New Zealand earthquakes that occurred in 2010 and 2011. Casualty includes adverse development on US asbestos and environmental claims, while the more recent years were in some cases strengthened in view of the unfavourable prevailing market conditions. Within specialty, the main reserve releases came from marine and engineering business lines.

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 portfolio strengthened reserves following adverse trends. This was partially offset by Canadian mortality and disability portfolios which had reserve releases following positive claims experience. 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 net claims and claim adjustment expenses development by lines of business is shown below:

USD millions	2015	2016
Line of business:		
Property	-455	-231
Casualty	-544	-370
Specialty	-223	-362
Life and health	214	121
Total	-1 008	-842

US asbestos and environmental claims exposure

The Business Unit'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 2016 the Business Unit Reinsurance carried net reserves for US asbestos and environmental liabilities equal to USD 1 759 million. During 2016, the Business Unit incurred net losses of USD 16 million and paid net against these liabilities of USD 160 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.

The Business Unit maintains an active commutation strategy to reduce exposure. When commutation payments are made, the traditional "survival ratio" is artificially reduced by premature payments which should not imply a reduction in reserve adequacy.

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 years.

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. The number of years shown in the claims development tables differs by business segment:

For Property & Casualty Reinsurance, the Group discloses data for ten accident years and reporting periods.

For the Life & Health Reinsurance long tail category, the Group discloses data for nine accident years and reporting periods. Disclosure of ten years of information is impracticable for all lines of business contained in this category as the Group historically has not used accident-year based information for reserving purposes in all income protection business lines.

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

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 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 could be 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 34).

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 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									Thereof	
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	IBNR	
2007	2 233	2 167	2 219	2 181	2 087	2 121	2 129	2 127	2 122	2 110	-7	
2008		2 617	2 228	2 090	2 008	2 006	2 026	2 017	2 017	2 014	-14	
2009			2 221	2 241	2 122	2 079	2 059	2 056	2 053	2 056	1	
2010				2 489	2 439	2 314	2 334	2 423	2 466	2 577	-5	
2011					4 240	4 308	4 126	4 187	4 143	4 139	123	
2012						2 637	2 466	2 273	2 231	2 202	14	
2013							3 038	3 050	2 880	2 799	-3	
2014								2 681	2 525	2 351	57	
2015									2 781	2 720	405	
2016										3 842	2 044	
Total										26 810	2 615	

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

USD millions		Reporting year									
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
2007	447	1 364	1 897	2 002	2 049	2 071	2 088	2 093	2 094	2 095	
2008		541	1 389	1 689	1 811	1 936	1 969	1 984	1 989	1 990	
2009			494	1 512	1 817	1 917	1 965	1 987	1 996	2 006	
2010				394	1 491	1 783	1 891	2 089	2 243	2 390	
2011					662	2 347	3 141	3 582	3 870	3 972	
2012						243	1 551	1 938	2 055	2 097	
2013							536	1 936	2 425	2 614	
2014								465	1 677	2 052	
2015									467	1 632	
2016										633	
Total										21 481	
All liabilities before 2007											125
Liabilities for claims and claim adjustment expenses, net of reinsurance											5 454

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%	46.9%	17.1%	6.1%	4.6%	2.4%	1.9%	0.3%	0.0%	0.0%

The liability for unpaid claims for property in Property & Casualty Reinsurance shows positive development on most recent 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 negative development on accident year 2010 in calendar year 2016 was driven by a deterioration in loss estimates for the 2010 New Zealand earthquake. Negative IBNRs can be a feature for claims arising from Property exposure due to overestimated case reserves.

Property & Casualty Reinsurance – Liability, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions		Reporting year									Thereof	
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	IBNR	
2007	1 464	1 551	1 482	1 621	1 519	1 418	1 382	1 347	1 350	1 346	45	
2008		1 131	1 112	1 175	1 240	1 136	1 033	1 092	1 090	1 108	88	
2009			762	894	1 008	964	958	928	939	948	90	
2010				831	975	914	894	886	889	878	148	
2011					633	689	714	658	616	613	139	
2012						511	594	550	522	495	115	
2013							719	742	749	745	238	
2014								984	974	986	518	
2015									1 251	1 299	872	
2016										1 705	1 398	
Total										10 123	3 651	

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

USD millions		Reporting year									Thereof	
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	IBNR	
2007	-6	107	334	498	806	921	1 000	1 053	1 084	1 117		
2008		67	140	286	451	535	651	758	876	928		
2009			-18	125	278	400	513	619	668	714		
2010				30	157	315	405	512	607	656		
2011					4	106	178	247	332	378		
2012						13	112	178	236	289		
2013							15	124	229	343		
2014								24	155	288		
2015									35	207		
2016										47		
Total										4 967		
All liabilities before 2007											596	
Liabilities for claims and claim adjustment expenses, net of reinsurance											5 752	

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)	2.0%	13.6%	14.6%	12.6%	13.2%	9.7%	6.6%	6.5%	3.5%	2.5%

The increase in incurred losses from accident year 2013 to 2016 is driven by volume increases of business written. In view of current market conditions the loss ratios for accident year 2015 were increased. In line with the Group's policy, cash flows under loss portfolio transfers are reported through claims paid. For longer tail 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									2016	
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015		Thereof IBNR	
2007	798	787	762	718	631	582	537	529	523	537	71	
2008		676	718	668	544	502	469	437	412	391	67	
2009			509	520	430	428	387	354	329	315	43	
2010				511	427	393	368	346	325	317	70	
2011					393	422	457	419	376	343	95	
2012						322	340	301	273	252	104	
2013							399	380	346	291	161	
2014								425	429	398	265	
2015	<i>RSI</i>								1 709	1 747	351	
2016										571	368	
Total										5 162	1 595	

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

USD millions		Reporting year									2016	
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015		Thereof IBNR	
2007	-4	27	71	127	213	254	287	309	333	345		
2008		6	29	101	131	164	191	233	252	280		
2009			-2	21	41	64	102	164	186	194		
2010				4	11	34	51	86	103	122		
2011					3	9	64	109	135	143		
2012						-1	11	35	52	83		
2013							1	11	36	59		
2014								1	8	40		
2015	<i>RSI</i>								0	87		
2016										13		
Total										1 366		
All liabilities before 2007											5 891	
Liabilities for claims and claim adjustment expenses, net of reinsurance											9 687	

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 (<i>RSI</i>)	0.5%	4.2%	10.3%	8.4%	11.2%	8.4%	7.5%	3.8%	5.8%	2.2%

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 2007 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 tail 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	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Thereof	IBNR
2007	457	486	490	453	439	431	409	396	390	379	0	
2008		385	412	400	411	419	408	406	405	410	84	
2009			343	367	344	339	336	327	322	314	31	
2010				271	223	229	217	215	217	209	34	
2011					225	245	242	234	237	231	33	
2012						311	321	306	297	294	40	
2013							334	342	329	320	62	
2014								297	329	322	100	
2015									428	426	151	
2016										587	286	
Total										3492	821	

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

USD millions	Reporting year										
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
2007	46	142	231	265	294	309	321	329	337	343	
2008		51	157	208	247	263	274	282	289	294	
2009			32	135	190	215	232	245	250	256	
2010				25	83	114	128	137	143	147	
2011					48	119	140	150	159	163	
2012						72	167	192	208	218	
2013							51	132	172	195	
2014								30	100	142	
2015									60	134	
2016										73	
Total										1965	
All liabilities before 2007											3125
Liabilities for claims and claim adjustment expenses, net of reinsurance											4652

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)	14.4%	26.6%	13.9%	7.2%	4.8%	3.1%	2.2%	1.9%	1.7%	1.6%

The 2007 accident year includes the run-off of business written by entities acquired as part of the acquisition of General Electric Insurance Solutions during 2006. This business was not renewed. The increase in incurred losses for accident years 2015 and 2016 compared to previous accident years is due to an increase in the volume of workers' compensation written.

Property & Casualty Reinsurance – Motor, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions		Reporting year										
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Thereof IBNR	
2007	802	716	831	825	832	836	825	824	826	825	-8	
2008		707	573	569	640	670	646	644	632	632	5	
2009			640	637	700	724	711	717	715	713	-17	
2010				570	631	667	673	669	684	684	-4	
2011					972	966	938	915	927	926	-17	
2012						1 427	1 419	1 416	1 393	1 384	44	
2013							1 502	1 477	1 483	1 459	30	
2014								1 902	1 869	1 869	26	
2015									1 877	1 881	219	
2016										2 445	1 190	
Total										12 818	1 468	

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

USD millions		Reporting year									
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
2007	182	562	737	767	775	784	790	796	800	803	
2008		322	526	599	577	588	587	599	603	606	
2009			158	391	580	613	624	653	669	676	
2010				195	439	522	556	581	612	627	
2011					260	651	830	850	879	898	
2012						460	1 065	1 218	1 265	1 295	
2013							559	1 132	1 308	1 354	
2014								816	1 482	1 699	
2015									781	1 413	
2016										812	
Total										10 183	
All liabilities before 2007											316
Liabilities for claims and claim adjustment expenses, net of reinsurance											2 951

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)	34.2%	37.9%	15.7%	2.6%	2.2%	2.3%	1.8%	0.8%	0.5%	0.4%

Increase in the incurred losses from accident year 2010 onward is driven by new business volume across all regions. Proportional motor business includes both longer tailed liability business and shorter tailed hull business. The negative IBNRs are due to overestimated case reserves, mainly on the German business and 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										2016	Thereof IBNR
	2007	2008	2009	2010	2011	2012	2013	2014	2015			
Accident year												
2007	401	414	402	369	366	380	379	372	379		376	85
2008		399	469	412	317	331	329	322	318		313	52
2009			360	373	270	272	257	262	256		254	78
2010				313	277	272	259	251	244		236	43
2011					387	423	408	405	391		385	114
2012						321	337	317	303		305	101
2013							414	435	438		423	123
2014								392	424		420	161
2015									375		396	217
2016											455	345
Total											3563	1319

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

USD millions	Reporting year										2016
	2007	2008	2009	2010	2011	2012	2013	2014	2015		
Accident year											
2007	9	49	83	114	136	152	175	186	192		199
2008		16	83	121	126	148	165	176	186		195
2009			0	37	55	66	79	93	103		113
2010				6	22	48	66	82	98		111
2011					-8	20	55	77	101		115
2012						3	24	49	84		109
2013							7	80	142		187
2014								5	58		101
2015									-1		33
2016											8
Total											1171
All liabilities before 2007											2557
Liabilities for claims and claim adjustment expenses, net of reinsurance											4949

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)	1.3%	11.8%	10.2%	7.1%	6.5%	5.1%	4.8%	3.4%	2.2%	1.9%

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 external retrocession on acquired retroactive business. In line with the Group's policy, cash flows under loss portfolio transfers are reported through claims paid. For longer tail 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									2016	Thereof IBNR
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015			
2007	1 686	1 690	1 897	1 773	1 771	1 718	1 700	1 682	1 678	1 672	20	
2008		2 021	2 025	1 952	1 906	1 860	1 829	1 811	1 818	1 804	31	
2009			1 489	1 621	1 442	1 375	1 347	1 325	1 308	1 292	21	
2010				1 198	1 210	1 158	1 136	1 117	1 084	1 064	27	
2011					1 259	1 239	1 157	1 078	1 125	1 123	42	
2012						933	991	1 012	996	997	52	
2013							1 065	994	956	923	79	
2014								1 085	1 081	983	165	
2015		<i>RSI</i>							1 208	1 195	369	
2016										1 266	840	
Total										12 319	1 646	

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

USD millions		Reporting year									2016
Accident year	2007	2008	2009	2010	2011	2012	2013	2014	2015		
2007	151	587	1 101	1 273	1 369	1 437	1 489	1 518	1 539	1 553	
2008		246	800	1 280	1 423	1 534	1 597	1 640	1 667	1 692	
2009			204	639	884	983	1 055	1 111	1 148	1 171	
2010				193	455	642	741	817	931	952	
2011					162	549	760	860	909	946	
2012						122	430	661	750	806	
2013							145	407	585	693	
2014								172	402	581	
2015		<i>RSI</i>							133	379	
2016										141	
Total										8 914	
All liabilities before 2007											661
Liabilities for claims and claim adjustment expenses, net of reinsurance											4 066

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)	13.9%	28.1%	21.7%	9.2%	5.8%	5.2%	2.6%	1.7%	1.3%	0.8%

This category includes credit and surety business, which was adversely affected by the financial crisis in 2007–2008. The category also includes several individual large losses on marine, aviation and space lines, including the Costa Concordia claims event.

Life & Health Reinsurance, long tail

Incurred claims and allocated claim adjustment expenses, net of reinsurance

Accident year	Reporting year									2016	Thereof IBNR (in nominals)	Cumulative number of reported claims
	2008	2009	2010	2011	2012	2013	2014	2015	2016			
2008	91	88	88	87	90	103	106	102	109	14	3 068	
2009		152	157	149	150	150	173	171	173	21	4 105	
2010			188	190	185	209	209	221	195	27	4 451	
2011				215	224	284	296	310	288	48	6 105	
2012					266	356	359	383	348	47	8 298	
2013						480	471	469	434	78	10 269	
2014							470	428	407	108	11 021	
2015	RSI							401	433	183	11 825	
2016									419	317	2 327	
Total									2 806	843	61 469	

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

Accident year	Reporting year									2016
	2008	2009	2010	2011	2012	2013	2014	2015	2016	
2008	5	21	38	49	57	64	68	72	76	76
2009		7	36	55	68	77	84	90	98	98
2010			8	40	62	80	93	104	114	114
2011				19	61	99	123	144	164	164
2012					27	86	138	176	208	208
2013						37	120	183	244	244
2014							32	107	195	195
2015	RSI							35	105	105
2016									13	13
Total									1 217	1 217
All liabilities before 2008										272
Liabilities for Life and Health claims and claim adjustment expenses, net of reinsurance										1 861

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

Years	1	2	3	4	5	6	7	8	9
Life & Health Reinsurance, long tail (RSI)	6.1%	16.6%	14.6%	10.0%	7.1%	5.8%	4.1%	4.1%	3.7%

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 increase 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 2016:

USD millions	2016
Net outstanding liabilities	
Property & Casualty Reinsurance:	
Property	5 454
Liability, proportional	5 752
Liability, non-proportional	9 687
Accident & Health	4 652
Motor, proportional	2 951
Motor, non-proportional	4 949
Specialty	4 066
Life & Health Reinsurance, long tail	1 861
Total net undiscounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	39 372
Discounting impact on (Life & Health Reinsurance) short duration contracts	-241
Impacts of acquisition accounting	-571
Total net discounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	38 560
Other short duration contract lines	2 167
Unallocated reinsurance recoverables on unpaid claims	-394
Total net discounted outstanding short duration liabilities	40 333
Allocated reinsurance recoverables on unpaid claims	
Property & Casualty Reinsurance:	
Property	378
Liability, proportional	426
Liability, non-proportional	364
Accident & Health	247
Motor, proportional	87
Motor, non-proportional	237
Specialty	286
Life & Health Reinsurance (short tail and short-duration lines of business)	
Impact of acquisition accounting	-139
Other short duration contract lines	260
Unallocated reinsurance recoverables on unpaid claims	394
Total short duration reinsurance recoverables on outstanding liabilities	2 540
Exclusions	
Unallocated claim adjustment expenses	614
Long duration contracts	7 586
Total other reconciling items	8 200
Total unpaid claims and claim adjustment expenses	51 073

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:

USD millions	2015	2016
Carrying amount of discounted claims	1 158	1 117
Aggregate amount of the discount	-281	-241
Interest accretion ¹	24	27
Range of interest rates	2.5%–3.7%	3.1%–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.

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

As of 31 December, the DAC were as follows:

2015 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance ¹	Other ¹	Total
Opening balance as of 1 January	1 756	2 723	1	4 480
Effect of change in Group structure ¹		-12	12	0
Deferred	4 132	1 018	35	5 185
Effect of acquisitions/disposals and retrocessions	7	2		9
Amortisation	-3 793	-560	-34	-4 387
Effect of foreign currency translation	-51	-151	-1	-203
Closing balance	2 051	3 020	13	5 084

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

¹ As of 1 January 2016, the primary life and health insurance business (individual and group) is reported in the "Other" segment instead of the Life & Health Reinsurance segment. Comparative information for 2015 has been adjusted accordingly.

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:

USD millions	2015			2016		
	Life & Health Reinsurance	Other	Total	Life & Health Reinsurance	Other	Total
Opening balance as of 1 January	1 294	605	1 899	1 134	587	1 721
Amortisation	-159	-28	-187	-132	-45	-177
Interest accrued on unamortised PVFP	40	1	41	36	34	70
Effect of change in unrealised gains/ losses		9	9		1	1
Effect of foreign currency translation	-41		-41	-72		-72
Closing balance	1 134	587	1 721	966	577	1 543

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 10%, 10%, 9%, 8% and 8%.

7 Investments

Investment income

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

USD millions	2015	2016
Fixed income securities	1 926	1 886
Equity securities	77	70
Policy loans, mortgages and other loans	147	188
Investment real estate	158	184
Short-term investments	68	42
Other current investments	67	69
Share in earnings of equity-accounted investees	106	30
Cash and cash equivalents	32	21
Net result from deposit-accounted contracts	66	113
Deposits with ceding companies	478	452
Gross investment income	3 125	3 055
Investment expenses	-328	-318
Interest charged for funds held	-10	-9
Net investment income – non-participating business	2 787	2 728

Dividends received from investments accounted for using the equity method were USD 176 million and USD 118 million for 2015 and 2016, respectively.

Realised gains and losses

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

USD millions	2015	2016
Fixed income securities available-for-sale:		
Gross realised gains	611	590
Gross realised losses	-270	-161
Equity securities available-for-sale:		
Gross realised gains	262	292
Gross realised losses	-51	-96
Other-than-temporary impairments	-51	-71
Net realised investment gains/losses on trading securities	62	121
Change in net unrealised investment gains/losses on trading securities	-31	-14
Net realised/unrealised gains/losses other investments	116	32
Net realised/unrealised gains/losses on insurance-related activities	108	22
Foreign exchange gains/losses	272	877
Net realised investment gains/losses – non-participating business	1 028	1 592

Investment result – unit-linked business

The net investment result on unit-linked business credited to policyholders amounted to gains of USD 42 million and USD 15 million for 2015 and 2016, 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, a 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	2015	2016
Balance as of 1 January	131	129
Credit losses for which an other-than-temporary impairment was not previously recognised	27	12
Reductions for securities sold during the period	-22	-44
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	7
Impact of increase in cash flows expected to be collected	-10	-6
Impact of foreign exchange movements	-4	-4
Balance as of 31 December	129	94

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:

2015 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	9 981	507	-94		10 394
US Agency securitised products	2 761	28	-27		2 762
States of the United States and political subdivisions of the states	913	39	-11		941
United Kingdom	4 462	486	-43		4 905
Canada	3 730	518	-13		4 235
Germany	2 789	232	-27		2 994
France	1 861	189	-16		2 034
Australia	1 532	21	-3		1 550
Other	5 491	169	-140		5 520
Total	33 520	2 189	-374		35 335
Corporate debt securities	21 287	621	-482	-10	21 416
Mortgage- and asset-backed securities	4 330	88	-32	-3	4 383
Fixed income securities available-for-sale	59 137	2 898	-888	-13	61 134
Equity securities available-for-sale	2 876	375	-160		3 091

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

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	2015	2016
Debt securities issued by governments and government agencies	2 710	2 538
Corporate debt securities	52	45
Mortgage- and asset-backed securities	134	112
Fixed income securities trading – non-participating business	2 896	2 695
Equity securities trading – non-participating business	68	60

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 2015 and 2016, these amounted to USD 818 million and USD 548 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 2015 and 2016, USD 10 893 million and USD 11 913 million, respectively, of fixed income securities available-for-sale were callable.

USD millions	Amortised cost or cost	2015 Estimated fair value	Amortised cost or cost	2016 Estimated fair value
Due in one year or less	3 261	3 309	4 879	4 920
Due after one year through five years	14 508	14 695	14 951	15 223
Due after five years through ten years	13 039	13 364	14 009	14 448
Due after ten years	24 246	25 631	23 020	24 994
Mortgage- and asset-backed securities with no fixed maturity	4 083	4 135	3 631	3 665
Total fixed income securities available-for-sale	59 137	61 134	60 490	63 250

Assets pledged

As of 31 December 2016, investments with a carrying value of USD 6 236 million were on deposit with regulatory agencies in accordance with local requirements, and investments with a carrying value of USD 11 389 million were placed on deposit or pledged to secure certain reinsurance liabilities, including pledged investments in subsidiaries.

As of 31 December 2015 and 2016, securities of USD 13 605 million and USD 13 491 million, respectively, were transferred to third parties under securities lending transactions and repurchase agreements on a fully collateralised basis. Corresponding liabilities of USD 995 million and USD 1 010 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 2016, a real estate portfolio with a carrying value of USD 219 million serves as collateral for a credit facility allowing the Group to withdraw funds up to CHF 650 million.

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

As of 31 December 2015 and 2016, the fair value of the equity securities, government and corporate debt securities received as collateral was USD 10 732 million and USD 11 453 million, respectively. Of this, the amount that was sold or repledged as of 31 December 2015 and 2016 was USD 6 125 million and USD 7 255 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:

2015 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	2 752	-1 953	799	-34	765
Reverse repurchase agreements	6 358	-3 000	3 358	-3 351	7
Securities borrowing	452		452	-452	0
Total	9 562	-4 953	4 609	-3 837	772

2015 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	-2 090	1 477	-613	77	-536
Repurchase agreements	-2 844	2 475	-369	369	0
Securities lending	-1 151	525	-626	582	-44
Total	-6 085	4 477	-1 608	1 028	-580

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

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", respectively.

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

As of 31 December 2015 and 2016, 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.

2015 USD millions	Remaining contractual maturity of the agreements				Total
	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	
Repurchase agreements					
Debt securities issued by governments and government agencies	370	2 136	176	135	2 817
Corporate debt securities	3	24			27
Total repurchase agreements	373	2 160	176	135	2 844
Securities lending					
Debt securities issued by governments and government agencies	217		501	433	1 151
Total securities lending	217	0	501	433	1 151
Gross amount of recognised liabilities for repurchase agreements and securities lending					3 995

2016 USD millions	Remaining contractual maturity of the agreements				Total
	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	
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

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 2015 and 2016. As of 31 December 2015 and 2016, USD 126 million and USD 44 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 34 million and USD 37 million, respectively, to declines in value for more than 12 months.

2015 USD millions	Less than 12 months		12 months or more		Total	
	Fair value	Unrealised losses	Fair value	Unrealised losses	Fair value	Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	4 516	93	6	1	4 522	94
US Agency securitised products	1 408	22	226	5	1 634	27
States of the United States and political subdivisions of the states	339	10	6	1	345	11
United Kingdom	1 067	42	14	1	1 081	43
Canada	930	11	10	2	940	13
Germany	825	25	113	2	938	27
France	500	13	16	3	516	16
Australia	1 059	3			1 059	3
Other	2 008	104	194	36	2 202	140
Total	12 652	323	585	51	13 237	374
Corporate debt securities	9 201	426	383	66	9 584	492
Mortgage- and asset-backed securities	2 150	27	187	8	2 337	35
Total	24 003	776	1 155	125	25 158	901

2016 USD millions	Less than 12 months		12 months or more		Total	
	Fair value	Unrealised losses	Fair value	Unrealised losses	Fair value	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

Mortgages, loans and real estate

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

USD millions	2015	2016
Policy loans	80	86
Mortgage loans	1 389	1 947
Other loans	2 363	2 585
Investment real estate	1 550	1 711

The fair value of mortgage loans as of 31 December 2015 and 2016 was USD 1 389 million and USD 1 950 million, respectively. The fair value of other loans as of 31 December 2015 and 2016 was USD 2 363 million and USD 2 596 million, respectively. The fair value of the real estate as of 31 December 2015 and 2016 was USD 3 205 million and USD 3 362 million, respectively. The carrying value of policy loans approximates fair value.

Depreciation expense related to income-producing properties was USD 36 million and USD 42 million for 2015 and 2016, respectively. Accumulated depreciation on investment real estate totalled USD 504 million and USD 525 million as of 31 December 2015 and 2016, 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 (e.g. 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 (e.g. 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 2016, 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 transparent and liquid markets.

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 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.

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 the 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 the 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:

2015 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	Total
Assets					
Fixed income securities held for proprietary investment purposes	10 695	52 997	338		64 030
Debt securities issued by US government and government agencies	10 695	1 450			12 145
US Agency securitised products		2 776			2 776
Debt securities issued by non-US governments and government agencies		23 124			23 124
Corporate debt securities		21 143	325		21 468
Mortgage- and asset-backed securities		4 504	13		4 517
Equity securities held for proprietary investment purposes	3 148		11		3 159
Equity securities backing unit-linked business	818				818
Short-term investments held for proprietary investment purposes	1 795	2 867			4 662
Derivative financial instruments	22	2 266	464	-1 953	799
Interest rate contracts	6	1 304			1 310
Foreign exchange contracts		319			319
Equity contracts	16	617	334		967
Credit contracts		1	1		2
Other contracts		25	129		154
Other invested assets	579	49	1 013		1 641
Funds held by ceding companies		245			245
Total assets at fair value	17 057	58 424	1 826	-1 953	75 354
Liabilities					
Derivative financial instruments	-17	-1 576	-497	1 477	-613
Interest rate contracts	-5	-789			-794
Foreign exchange contracts		-201			-201
Equity contracts	-12	-582	-38		-632
Credit contracts			-19		-19
Other contracts		-4	-440		-444
Liabilities for life and health policy benefits			-165		-165
Accrued expenses and other liabilities	-812	-2 524	-1 474		-4 810
Total liabilities at fair value	-829	-4 100	-2 136	1 477	-5 588

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.

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 a 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
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.

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 was as follows:

2015 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	388	4	537	1 289	2 218	-717	-187	-1 559	-2 463
Realised/unrealised gains/losses:									
Included in net income	4		-20	45	29	165	22		187
Included in other comprehensive income	-14	-1		-71	-86				0
Purchases	9		7	134	150				0
Issuances					0	-10			-10
Sales	-46		-3	-441	-490	1			1
Settlements	-35		-72		-107	65			65
Transfers into level 3 ¹	33	8	15	70	126	-1			-1
Transfers out of level 3 ¹					0				0
Impact of foreign exchange movements	-1			-13	-14			85	85
Closing balance as of 31 December	338	11	464	1 013	1 826	-497	-165	-1 474	-2 136

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

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 for more details.

² 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	2015	2016
Gains/losses included in net income for the period	216	222
Whereof change in unrealised gains/losses relating to assets and liabilities still held at the reporting date	47	88

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	2015 Fair value	2016 Fair value	Valuation technique	Unobservable input	Range (weighted average)
Assets					
Corporate debt securities	325	341			
Private placement corporate debt	241	177	Corporate Spread Matrix	Credit spread	62 bps–661 bps (172 bps)
Private placement credit tenant leases	51	48	Discounted Cash Flow Model	Illiquidity premium	75 bps–175 bps (132 bps)
Infrastructure loans	32	116	Discounted Cash Flow Model	Valuation spread	98 bps–230 bps (150 bps)
Derivative equity contracts	334	341			
OTC equity option referencing correlated equity indices	334	341	Proprietary Option Model	Correlation	–45%–100% (27.5%) ¹
Liabilities					
Derivative equity contracts	–38	–39			
OTC equity option referencing correlated equity indices	–38	–39	Proprietary Option Model	Correlation	–45%–100% (27.5%) ¹
Other derivative contracts and liabilities for life and health policy benefits	–605	–545			
Variable annuity and fair valued GMD B contracts	–567	–500	Discounted Cash Flow Model	Risk margin Volatility Lapse Mortality adjustment Withdrawal rate	4% (n.a.) 4%–42% 0.5%–33% –10%–0% 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 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 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 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 (i. e. 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	2015 Fair value	2016 Fair value	Unfunded commitments	Redemption frequency (if currently eligible)	Redemption notice period
Private equity funds	550	431	89	non-redeemable	n.a.
Hedge funds	135	106		redeemable ¹	45-95 days ²
Private equity direct	31	1		non-redeemable	n.a.
Real estate funds	203	189	49	non-redeemable	n.a.
Total	919	727	138		

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.

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	2015	2016
Assets		
Other invested assets	7 861	7 217
of which at fair value pursuant to the fair value option	92	108
Funds held by ceding companies	10 668	8 854
of which at fair value pursuant to the fair value option	245	225
Liabilities		
Liabilities for life and health policy benefits	-16 779	-17 629
of which at fair value pursuant to the fair value option	-165	-144

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	2015	2016
Other invested assets	4	-18
Funds held by ceding companies	7	6
Liabilities for life and health policy benefits	21	20
Total	32	8

Fair value changes from other invested assets and funds held by ceding companies 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:

2015 USD millions	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets			
Policy loans		80	80
Mortgage loans		1 389	1 389
Other loans		2 363	2 363
Investment real estate		3 205	3 205
Total assets	0	7 037	7 037
Liabilities			
Debt	-8 190	-7 137	-15 327
Total liabilities	-8 190	-7 137	-15 327

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

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 do 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:

2015 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	66 787	1 310	-794	516
Foreign exchange contracts	14 273	282	-201	81
Equity contracts	16 374	967	-632	335
Credit contracts	188	2	-19	-17
Other contracts	17 842	154	-444	-290
Total	115 464	2 715	-2 090	625
Derivatives designated as hedging instruments				
Foreign exchange contracts	2 151	37		37
Total	2 151	37	0	37
Total derivative financial instruments	117 615	2 752	-2 090	662
Amount offset				
Where a right of set-off exists		-1 162	1 162	
Due to cash collateral		-791	315	
Total net amount of derivative financial instruments		799	-613	186

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				
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

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 2015 and 2016.

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	2015	2016
Derivatives not designated as hedging instruments		
Interest rate contracts	68	-16
Foreign exchange contracts	433	-121
Equity contracts	-191	-164
Credit contracts	-5	8
Other contracts	212	150
Total gains/losses recognised in income	517	-143

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 2015 and 2016, 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 of its issued debt positions and 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:

USD millions	Gains/losses on derivatives	2015 Gains/losses on hedged items	Gains/losses on derivatives	2016 Gains/losses on hedged items
Fair value hedging relationships				
Foreign exchange contracts	119	-119	250	-250
Total gains/losses recognised in income	119	-119	250	-250

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 2015 and 2016, the Group recorded an accumulated net unrealised foreign currency remeasurement gain of USD 1 075 million and a gain of USD 1 311 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 2015 and 2016 was approximately USD 1 590 million and USD 1 518 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 51 million and USD 79 million as of 31 December 2015 and 2016, respectively. For derivative financial instruments containing credit risk-related contingent features, the Group posted collateral of nil as of 31 December 2015 and 2016, respectively. In the event of a reduction of the Group's credit rating to below investment grade, a fair value of USD 79 million additional collateral would have had to be posted as of 31 December 2016. The total equals the amount needed to settle the instruments immediately as of 31 December 2016.

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	2015	2016
Senior financial debt	2 285	2 734
Senior operational debt	751	420
Subordinated financial debt	1 069	543
Short-term debt – financial and operational debt	4 105	3 697
Senior financial debt	2 880	2 249
Senior operational debt	467	423
Subordinated financial debt	3 607	2 884
Subordinated operational debt	2 720	2 249
Long-term debt – financial and operational debt	9 674	7 805
Total carrying value	13 779	11 502
Total fair value	15 327	13 270

Maturity of long-term debt

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

USD millions	2015	2016
Due in 2017	1 143	0 ¹
Due in 2018	0	0
Due in 2019	1 855	1 666
Due in 2020	204	195
Due in 2021	210	209
Due after 2021	6 262	5 735
Total carrying value	9 674	7 805

¹ Balance was reclassified to short-term debt.

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%	254
2022	Senior notes	2012	USD	250	2.88%	249
2024	EMTN	2014	CHF	250	1.00%	245
2026	Senior notes ¹	1996	USD	397	7.00%	497
2027	EMTN	2015	CHF	250	0.75%	247
2030	Senior notes ¹	2000	USD	193	7.75%	268
2042	Senior notes	2012	USD	500	4.25%	489
Various	Payment undertaking agreements	various	USD	353	various	423
Total senior long-term debt as of 31 December 2016						2 672
Total senior long-term debt as of 31 December 2015						3 347

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	795
2042	Subordinated fixed-to-floating rate loan note	2012	EUR	500	6.63%	2022	522
2045	Subordinated contingent write-off securities	2013	CHF	175	7.50%	2020	195
	Subordinated private placement						
2057	(amortising, limited recourse)	2007	GBP	1 819	4.92%		2 250
	Subordinated perpetual loan note	2007	GBP	500	6.30%	2019	617
	Perpetual Subordinated Fixed-to-Floating Rate Callable Loan Note	2015	EUR	750	2.60%	2025	754
Total subordinated long-term debt as of 31 December 2016						5 133	
Total subordinated long-term debt as of 31 December 2015						6 327	

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	2015	2016
Senior financial debt	104	100
Senior operational debt	13	10
Subordinated financial debt	213	156
Subordinated operational debt	137	122
Total	467	388

In addition to the above, interest expense on contingent capital instruments classified as equity was USD 68 million and USD 68 million for the years ended 31 December 2015 and 2016, respectively.

Long-term debt issued in 2016

No long-term debt was issued in the year ended 31 December 2016.

Contingent capital instruments

In February 2012, SRZ issued a perpetual subordinated instrument with stock settlement. The instrument has a face value of CHF 320 million, with a fixed coupon of 7.25% per annum until the first optional redemption date (1 September 2017).

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).

Both instruments may be converted, at the option of the issuer, into Swiss Re Ltd shares at any time through an "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 (CHF 26 for the instrument with face value of CHF 320 million and USD 32 for the instrument with face value of USD 750 million, respectively). These instruments are referred to in these financial statements as "contingent capital instruments".

11 Income taxes

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

USD millions	2015	2016
Current taxes	317	613
Deferred taxes	207	35
Income tax expense	524	648

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	2015	2016
Income tax at the Swiss statutory tax rate of 21.0%	913	807
Increase (decrease) in the income tax charge resulting from:		
Foreign income taxed at different rates	265	125
Impact of foreign exchange movements	-182	-27
Tax exempt income/dividends received deduction	-52	-24
Change in valuation allowance	-26	-210
Basis differences in subsidiaries	-315	-2
Statutory rate change		46
Change in liability for unrecognised tax benefits including interest and penalties	-97	-112
Other, net	18	45
Total	524	648

The Group reported a tax charge of USD 648 million on a pre-tax income of USD 3 845 million for 2016, compared to a charge of USD 524 million on a pre-tax income of USD 4 349 million for 2015. This translates into an effective tax rate in the current and prior year reporting periods of 16.9% and 12.0%, respectively.

The tax rate in 2016 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. The lower rate in 2015 was largely driven by a tax benefit arising from a local statutory accounting adjustment for restructuring of subsidiaries and higher tax benefits from foreign currency translation differences between statutory and US GAAP accounts.

Deferred and other non-current taxes

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

USD millions	2015	2016
Deferred tax assets		
Income accrued/deferred	265	320
Technical provisions	665	613
Pension provisions	309	340
Benefit on loss carryforwards	3 072	2 607
Currency translation adjustments	321	271
Other	1 225	1 132
Gross deferred tax asset	5 857	5 283
Valuation allowance	-553	-339
Unrecognised tax benefits offsetting benefits on loss carryforwards	-35	-22
Total deferred tax assets	5 269	4 922
Deferred tax liabilities		
Present value of future profits	-214	-191
Income accrued/deferred	-894	-546
Bond amortisation	-638	-120
Deferred acquisition costs	-868	-909
Technical provisions	-2 351	-2 726
Unrealised gains on investments	-496	-641
Untaxed realised gains	-94	-250
Foreign exchange provisions	-269	-444
Other	-579	-589
Total deferred tax liabilities	-6 403	-6 416
Liability for unrecognised tax benefits including interest and penalties	-368	-215
Total deferred and other non-current tax liabilities	-6 771	-6 631
Net deferred and other non-current taxes	-1 502	-1 709

As of 31 December 2016, 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 1.8 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 2016, the Group had USD 7 978 million net operating tax loss carryforwards, expiring as follows: USD 25 million in 2018, USD 47 million in 2019, USD 13 million in 2020, USD 7 580 million in 2021 and beyond, and USD 313 million never expire.

The Group also had capital loss carryforwards of USD 41 million, expiring as follow: USD 36 million in 2020, USD 5 million in 2021.

Net operating tax losses of USD 1 297 million and net capital tax losses of USD 31 million were utilised during the period ended 31 December 2016.

Income taxes paid in 2015 and 2016 were USD 981 million and USD 515 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	2015	2016
Balance as of 1 January	536	331
Additions based on tax positions related to current year	34	36
Additions based on tax positions related to prior years	113	20
Reductions for tax positions of prior years	-233	-101
Statute expiration		-44
Settlements	-97	-53
Other (including foreign currency translation)	-22	
Balance as of 31 December	331	189

The amount of gross unrecognised tax benefits within the tabular reconciliation that, if recognised, would affect the effective tax rate were approximately USD 327 million and USD 188 million at 31 December 2015 and 2016, respectively.

Interest and penalties related to unrecognised tax benefits are recorded in income tax expense. Such expense in 2016 was USD 23 million (USD 40 million in 2015). As of 31 December 2015 and 2016, USD 72 million and USD 48 million, respectively, were accrued for the payment of interest (net of tax benefits) and penalties. The accrued interest balance as of 31 December 2016 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 2016 presented in the table above excludes accrued interest and penalties (USD 48 million).

During the year, certain tax positions and audits in Switzerland, Germany, Italy, France and the United States 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 subject to examination:

Australia	2010–2016	Korea	2013–2016
Belgium	2011–2016	Luxembourg	2012–2016
Brazil	2011–2016	Malaysia	2013–2016
Canada	2011–2016	Mexico	2011–2016
China	2007–2016	Netherlands	2012–2016
Denmark	2012–2016	New Zealand	2009–2016
France	2008, 2012–2016	Singapore	2013–2016
Germany	2014–2016	Slovakia	2012–2016
Hong Kong	2010–2016	South Africa	2011–2016
India	2004–2016	Spain	2011–2016
Ireland	2012–2016	Switzerland	2013–2016
Israel	2008–2016	United Kingdom	2008, 2011–2016
Italy	2012–2016	United States	2011–2016
Japan	2012–2016		

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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.

2015 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	3 684	1 879	371	5 934
Service cost	111	7	5	123
Interest cost	42	61	10	113
Actuarial gains/losses	236	-49	-2	185
Benefits paid	-189	-60	-16	-265
Employee contribution	26			26
Acquisitions/disposals/additions		2		2
Effect of settlement, curtailment and termination	2			2
Effect of foreign currency translation	-36	-103	-5	-144
Benefit obligation as of 31 December	3 876	1 737	363	5 976
Fair value of plan assets as of 1 January	3 534	1 823	0	5 357
Actual return on plan assets	36	7		43
Employers contribution	94	61	16	171
Benefits paid	-189	-60	-16	-265
Employee contribution	26			26
Acquisitions/disposals/additions		1		1
Effect of settlement, curtailment and termination	2			2
Effect of foreign currency translation	-25	-108		-133
Fair value of plan assets as of 31 December	3 478	1 724	0	5 202
Funded status	-398	-13	-363	-774

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
Acquisitions/disposals/additions				0
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		5 202
Actual return on plan assets	128	188		316
Employers contribution	95	54	16	165
Benefits paid	-139	-59	-16	-214
Employee contribution	25			25
Acquisitions/disposals/additions				0
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

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

2015				
USD millions	Swiss plan	Foreign plans	Other benefits	Total
Non-current assets		188		188
Current liabilities		-3	-15	-18
Non-current liabilities	-398	-198	-348	-944
Net amount recognised	-398	-13	-363	-774

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

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

2015				
USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	1 134	303	-43	1 394
Prior service cost/credit	-78	1	-67	-144
Total	1 056	304	-110	1 250

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

Components of net periodic benefit cost

For the years ended 31 December, the components of pension and post-retirement cost for the Group and affiliated companies were as follows:

2015				
USD millions	Swiss plan	Foreign plans	Other benefits	Total
Service cost (net of participant contributions)	111	7	5	123
Interest cost	42	61	10	113
Expected return on assets	-113	-71		-184
Amortisation of:				
Net gain/loss	76	17	-4	89
Prior service cost	-9		-10	-19
Effect of settlement, curtailment and termination	2			2
Net periodic benefit cost	109	14	1	124

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 and termination	1			1
Net periodic benefit cost	99	10	2	111

For the years ended 31 December, other changes in plan assets and benefit obligations recognised in other comprehensive income for the Group and affiliated companies were as follows:

2015	Swiss plan	Foreign plans	Other benefits	Total
USD millions				
Net gain/loss	313	15	-2	326
Amortisation of:				
Net gain/loss	-76	-17	4	-89
Prior service cost	9		10	19
Effect of settlement, curtailment and termination				0
Exchange rate gain/loss recognised during the year		-18		-18
Total recognised in other comprehensive income, gross of tax	246	-20	12	238
Total recognised in net periodic benefit cost and other comprehensive income, gross of tax	355	-6	13	362
2016				
USD millions				
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				0
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

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 2017 are USD 91 million and USD 9 million, respectively. The estimated net gain and prior service credit for the other defined post-retirement benefits that will be amortised from accumulated other comprehensive income into net periodic benefit cost in 2017 are USD 2 million and USD 9 million, respectively.

The Group and affiliated companies' accumulated benefit obligation (the current value of accrued benefits excluding future salary increases) for pension benefits was USD 5 546 million and USD 5 665 million as of 31 December 2015 and 2016, respectively.

Pension plans with an accumulated benefit obligation in excess of plan assets for the Group and affiliated companies as of 31 December were as follows:

USD millions	2015	2016
Projected benefit obligation	4 881	4 938
Accumulated benefit obligation	4 840	4 901
Fair value of plan assets	4 282	4 367

Principal actuarial assumptions

	Swiss plan		Foreign plans weighted average		Other benefits weighted average	
	2015	2016	2015	2016	2015	2016
Assumptions used to determine obligations at the end of the year						
Discount rate	0.8%	0.6%	3.6%	3.0%	2.7%	2.4%
Rate of compensation increase	2.0%	1.8%	2.8%	2.9%	2.1%	2.1%
Assumptions used to determine net periodic pension costs for the year ended						
Discount rate	1.1%	0.8%	3.4%	3.6%	2.7%	2.7%
Expected long-term return on plan assets	3.3%	3.3%	4.2%	3.9%		
Rate of compensation increase	2.3%	2.0%	2.8%	2.8%	2.1%	2.1%
Assumed medical trend rates at year end						
Medical trend – initial rate					6.1%	5.1%
Medical trend – ultimate rate					4.6%	3.8%
Year that the rate reaches the ultimate trend rate					2020	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 2016:

USD millions	1 percentage point increase	1 percentage point decrease
Effect on total of service and interest cost components	1	-1
Effect on post-retirement benefit obligation	27	-23

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 2015 and 2016 is as follows:

Asset category	Swiss plan allocation			Foreign plans allocation		
	2015	2016	Target allocation	2015	2016	Target allocation
Equity securities	26%	27%	25%	22%	19%	19%
Debt securities	47%	44%	47%	71%	48%	50%
Real estate	21%	22%	20%	1%	0%	1%
Other	6%	7%	8%	6%	33%	30%
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 6 million (0.1% of total plan assets) and USD 7 million (0.1% of total plan assets) as of 31 December 2015 and 2016, 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 table below 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:

2015 USD millions	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Total
Assets				
Fixed income securities:				
Debt securities issued by the US government and government agencies	34	149		183
Debt securities issued by non-US governments and government agencies		775		775
Corporate debt securities		1 890		1 890
Residential mortgage-backed securities		16		16
Commercial mortgage-backed securities		1		1
Other asset-backed securities		4		4
Equity securities:				
Equity securities held for proprietary investment purposes	917	384		1 301
Derivative financial instruments	-9			-9
Real estate	129	9	596	734
Other assets	19	79	142	240
Total assets at fair value	1 090	3 307	738	5 135
Cash	71	-4		67
Total plan assets	1 161	3 303	738	5 202

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 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

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:

2015 USD millions	Real estate	Other assets	Total
Balance as of 1 January	578	139	717
Realised/unrealised gains/losses:			
Relating to assets still held at the reporting date	10	-13	-3
Relating to assets sold during the period		17	17
Purchases, issuances and settlements	12	6	18
Transfers in and/or out of level 3			0
Impact of foreign exchange movements	-4	-7	-11
Closing balance as of 31 December	596	142	738

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

Expected contributions and estimated future benefit payments

The employers contributions expected to be made by the Group and affiliated companies in 2017 to the defined benefit pension plans are USD 148 million and to the post-retirement benefit plans are USD 15 million.

As of 31 December 2016, the projected benefit payments for the Group and affiliated companies, 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
2017	196	60	15	271
2018	193	63	15	271
2019	186	66	16	268
2020	185	68	17	270
2021	180	70	18	268
Years 2022-2026	847	378	101	1326

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 2015 and in 2016 was USD 70 million and USD 65 million, respectively.

13 Share-based payments

Since 2012 compensation arrangements are part of Swiss Re Group arrangements. Compensation awards for the Group, including those granted prior to 2012, settle in shares of Swiss Re Ltd. Performance measures of the compensation awards are measured at the Swiss Re Group level.

As of 31 December 2015 and 2016, the Group had the share-based compensation plans described below.

Total compensation cost for share-based compensation plans recognised in net income was USD 56 million and USD 13 million in 2015 and 2016, respectively. The related tax benefit was USD 12 million and USD 3 million, respectively.

Stock option plans

No options were granted under stock option plans from 2007 onwards. Options issued vest at the end of the fourth year and have a maximum life of ten years.

A summary of the activity of the Group's stock option plans for the year ended 31 December 2016 is as follows:

	Weighted average exercise price in CHF	Number of options
Outstanding as of 1 January	82	100 000
Options sold	82	-100 000
Outstanding as of 31 December		0
Exercisable as of 31 December		0

The total intrinsic value of the options sold was CHF 1 million. The fair value of the option grant was estimated on the date of grant using a binomial option-pricing model. The underlying strike price for the outstanding option series has been adjusted for the special dividend payout in 2013, 2014 and 2015.

Restricted shares

The Group granted 7 776 and 30 477 restricted shares to selected employees in 2015 and 2016, respectively. Moreover, as an alternative to the Group's cash bonus programme, 288 125 and 114 083 shares were delivered during 2015 and 2016, respectively, which are not subject to forfeiture risk.

A summary of the movements in shares relating to outstanding awards granted under the restricted share plans for the year ended 31 December 2016 is as follows:

	Weighted average grant date fair value in CHF ¹	Number of shares
Non-vested at 1 January	79	531 018
Effect of change in Group structure ²	81	-168 419
Granted	88	144 560
Delivery of restricted shares	78	-339 103
Forfeited	62	-11 420
Outstanding as of 31 December	88	156 636

¹ Equal to the market price of the shares on the date of grant.

² Reflects moves of employees from SRZ consolidated Group to other wholly owned subsidiaries of Swiss Re Ltd as part of the set-up of Group service companies as of 1 January 2016.

Leadership Performance Plan

The Leadership Performance Plan (LPP) awards are expected to be settled in shares, and the requisite service as well as the maximum contractual term are three years. For LPP 2014, LPP 2015 and LPP 2016 awards an additional two-year holding period applies for all members of the Group EC and other key executives. At grant date the award is split equally into two underlying components – Restricted Share Units (RSUs) and Performance Share Units (PSUs). The RSUs are measured against a ROE performance condition and will vest within a range of 0–100%. The PSUs are based on relative total shareholder return, measured against a pre-defined group of peers and will vest within a range of 0–200%. The fair values of both components are measured separately, based on stochastic models.

The fair value assumptions included in the grant valuation are based on market estimates for dividends (and an additional special dividend of CHF 4.00 for the LPP 2013, a special dividend of CHF 4.15 for the LPP 2014, and a special dividend of CHF 3.00 for the LPP 2015 respectively) and the risk free rate based on the average of the 5-year US government bond rate (for LPP 2013, LPP 2014 and LPP 2015) and the average of the 10-year US government bond rate (for LPP 2016) taken monthly over each year in the performance period. This resulted in risk free rates between 1.0% and 3.1% for all LPP plans.

For the year ended 31 December 2016, the outstanding units were as follows:

RSUs	LPP 2013	LPP 2014	LPP 2015	LPP 2016
Non-vested at 1 January	329 860	354 090	324 690	
Effect of change in Group structure ¹		-198 285	-192 080	
Granted				171 062
Forfeitures		-1 235	-1 480	-2 211
Other ²		-11 655	-10 730	-31 230
Vested	-329 860			
Outstanding as of 31 December	0	142 915	120 400	137 621
Grant date fair value in CHF	61.19	60.85	67.65	67.91
PSUs				
Non-vested at 1 January	383 880	357 840	358 080	
Effect of change in Group structure ¹		-200 365	-211 805	
Granted				232 091
Forfeitures		-1 250	-1 635	-2 999
Other ²		-11 770	-11 830	-42 376
Vested	-383 880			
Outstanding as of 31 December	0	144 455	132 810	186 716
Grant date fair value in CHF	52.59	60.21	61.37	50.04

¹ Reflects moves of employees from SRZ consolidated Group to other wholly owned subsidiaries of Swiss Re Ltd as part of the set-up of Group service companies as of 1 January 2016.

² Reflects moves of employees from SRZ consolidated Group to other wholly owned subsidiaries of Swiss Re Ltd.

Unrecognised compensation costs

As of 31 December 2016, the total unrecognised compensation cost (net of forfeitures) related to non-vested, share-based compensation awards was USD 23 million and the weighted average period over which that cost is expected to be recognised is 1.9 years.

The number of shares authorised for the Group's share-based payments to employees was 3 554 592 and 1 549 684 as of 31 December 2015 and 2016, respectively. The Group's policy is to ensure that sufficient treasury shares are available at all times to settle share-based compensation plans.

Global Share Participation Plan

In June 2013, the Swiss Re Group introduced the Global Share Participation Plan, which is a share purchase plan that was rolled out globally for the benefit of employees of companies within the Swiss Re Group. The Group makes a financial contribution to participants in the Plan, by matching the commitment that they make during the plan cycle with additional Swiss Re Ltd shares.

If the employee is still employed by the Group at the end of a plan cycle, the employee will receive an additional number of shares equal to 30% of the total number of purchased and dividend shares held at that time. In 2015 and 2016, the Group contributed USD 9 million and USD 4 million to the plans and authorised 211 472 and 178 233 shares as of 31 December 2015 and 2016, respectively.

14 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:

2015 USD millions	Corporate Solutions	Life Capital	Other	Total
Gross premiums written	311	244		555
Net premiums written	96	244		340
Change in unearned premiums	-39			-39
Premiums earned	57	244		301
Net investment income – non-participating business	35		10	45
Net realised investment income – non-participating business	-16		-78	-94
Other revenues	13	11	1	25
Total revenues	89	255	-67	277
Claims and claim adjustment expenses	204			204
Life and health benefits		-240		-240
Interest credited to policyholders		-2		-2
Acquisition costs	-6	-1		-7
Operating expenses	472	17	-199	290
Interest expenses			-36	-36
Total expenses	670	-226	-235	209

2016 USD millions	Corporate Solutions	Life Capital	Other	Total
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 income – non-participating business	-22	43	-77	-56
Other revenues	10	10	1	21
Total revenues	111	299	-66	344
Claims and claim adjustment expenses	202			202
Life and health benefits		-203		-203
Interest 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

2015

USD millions	Corporate Solutions	Life Capital	Other	Total
Policy loans, mortgages and other loans			1 792	1 792
Other invested assets	22		24	46
Accrued investment income			4	4
Premiums and other receivables	102	14		116
Reinsurance recoverable on unpaid claims and policy benefits	390			390
Funds held by ceding companies	816			816
Deferred acquisition costs	5			5
Other assets	162	4	37	203
Total assets	1 497	18	1 857	3 372
Unpaid claims and claim adjustment expenses	4 730	4		4 734
Liabilities for life and health policy benefits		6		6
Policyholder account balances		133		133
Unearned premiums	131			131
Funds held under reinsurance treaties	1			1
Reinsurance balances payable	215			215
Short-term debt			2 787	2 787
Accrued expenses and other liabilities	17	61	1 531	1 609
Total liabilities	5 094	204	4 318	9 616

2016

USD millions	Corporate Solutions	Life Capital	Other	Total
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
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

Issued in	Instrument	Maturity	Currency	Nominal in millions	Interest rate	Book value in USD millions
2005	Senior Loan	2028	GBP	100	1mLIBOR+0.00%	124
2008	Senior Loan	2028	GBP	240	4.98%	296
2016	Senior Loan	2018	USD	1 485	3mLIBOR+0.65%	1 485
2016	Senior Loan	2018	USD	337	3mLIBOR+0.65%	337
2016	Senior Loan	2018	USD	322	3mLIBOR+0.65%	322
Total short-term debt as of 31 December 2016						2 564

As of 31 December 2015 and 2016, the Group's investment in mortgages and other loans included USD 287 million and USD 292 million, respectively, of loans due from employees, and USD 196 million and USD 184 million, respectively, due from officers. These loans generally consist of mortgages offered at variable and fixed interest rates.

In November 2015, the Company entered into a subordinated funding facility with its parent company Swiss Re Ltd under which the Company has the right, among others, to issue subordinated notes to Swiss Re Ltd of up to USD 700 million at any time before August 2030. For its various rights, the Company owes Swiss Re Ltd an unconditional fixed commitment fee, payable in annual instalments calculated as 5.80% on the total facility amount. Annually, the Company receives a partial reimbursement of the commitment fee equal to 2.22% per annum on the undrawn facility amount. As of 31 December 2016 and 2015, the facility was undrawn.

In April 2016, the Company entered into a subordinated funding facility with its parent company Swiss Re Ltd under which the Company has the right, among others, to issue subordinated notes to Swiss Re Ltd of up to USD 400 million at any time before February 2036. For its various rights, the Company owes Swiss Re Ltd an unconditional fixed commitment fee, payable in annual instalments calculated as 6.10% on the total facility amount. Annually, the Company receives a partial reimbursement of the commitment fee equal to 2.13% per annum on the undrawn facility amount. As of 31 December 2016, the facility was undrawn.

In June 2016, the Company entered into a subordinated funding facility with its parent company Swiss Re Ltd under which the Company has the right, among others, to issue subordinated notes to Swiss Re Ltd of up to USD 800 million at any time before August 2032. For its various rights, the Company owes Swiss Re Ltd an unconditional fixed commitment fee, payable in annual instalments calculated as 5.68% on the total facility amount. Annually, the Company receives a partial reimbursement of the commitment fee equal to 1.95% per annum on the undrawn facility amount. As of 31 December 2016, the facility was undrawn.

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15 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	2016
2017	27
2018	23
2019	21
2020	20
2021	20
After 2021	165
Total operating lease commitments	276

Minimum rentals for all operating leases (except those with terms of a month or less that were not renewed) for the years ended 31 December 2015 and 2016 were USD 62 million and USD 29 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 10 years. The total commitments remaining uncalled as of 31 December 2016 were USD 1 044 million.

The Group entered into a real estate construction contract. The commitments under the contract amount to USD 92 million over the next 4 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.

16 Variable interest entities

The adoption of ASU 2015-02 as of 1 January 2016 led to an increase in the number of variable interest entities (VIEs), mainly due to the evaluation of partnerships and investment funds.

The Group enters into arrangements with 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 under ASU 2015-02, 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 7 and are 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 under ASU 2015-02, 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 (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 2016 that it was not previously contractually required to provide.

Consolidated VIEs

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

USD millions	2015	2016
Fixed income securities available-for-sale	3 876	3 715
Short-term investments	88	128
Other invested assets	26	
Cash and cash equivalents	147	22
Accrued investment income	42	33
Premiums and other receivables	34	33
Deferred acquisition costs	9	9
Deferred tax assets	38	94
Other assets	8	8
Total assets	4 268	4 042
Unpaid claims and claim adjustment expenses	53	65
Unearned premiums	26	25
Reinsurance balances payable	2	6
Deferred and other non-current tax liabilities	96	213
Accrued expenses and other liabilities	17	14
Long-term debt	2 720	2 249
Total liabilities	2 914	2 572

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 in 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	2015	2016
Fixed income securities available-for-sale	52	415
Equity securities available-for-sale		466
Policy loans, mortgages and other loans	1	764
Other invested assets	918	1 419
Investments for unit-linked business		163
Total assets	971	3 227
Accrued expenses and other liabilities	45	78
Total liabilities	45	78

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

USD millions	2015			2016		
	Total assets	Total liabilities	Maximum exposure to loss ¹	Total assets	Total liabilities	Maximum exposure to loss ¹
Insurance-linked securitisations	52		52	336		331
Life and health funding vehicles	2	1	1 777	2	1	1 948
Swaps in trusts	146	44	- ²	164	77	- ²
Investment vehicles	771		773	1 728		1 729
Investment vehicles for unit-linked business				163		-
Commercial mortgage / infrastructure loans				834		834
Total	971	45	-²	3 227	78	-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.

17 Disposals

Aurora National Life Assurance Company

In the fourth quarter of 2014, the Group entered into an agreement to sell Aurora National Life Assurance Company (Aurora), a US subsidiary, to Reinsurance Group of America, Incorporated (RGA). Aurora primarily consists of bonds and policyholder liabilities. In the second quarter of 2015, the Group completed the sale following the receipt of all necessary regulatory approvals. The purchase price included a cash payment of USD 184 million.

18 Subsequent events

In January 2017, the Group sold three primary life and health insurance carriers to Swiss Re Life Capital Ltd. The sale is in line with the changes presented to the segmental reporting from 1 January 2016 onwards. Based on the year-end 2016 balance sheet, the assets and liabilities transferred to Life Capital amounted to approximately USD 1.9 billion and USD 1.9 billion, respectively.

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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 consolidated financial statements of Swiss Reinsurance Company Ltd and its subsidiaries (the 'Company'), which comprise the consolidated balance sheet as of 31 December 2016, and the related consolidated income statement, statement of comprehensive income, statement of shareholder's equity, statement of cash flow and notes (pages 2 to 100) for the year ended 31 December 2016.

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 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 2016, 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 38 to 45 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

Given the ongoing market volatility and macroeconomic uncertainty, investment valuation continues to be an area of inherent risk. 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:

- Fixed income securitised products
- Fixed income mortgage and asset-backed securities
- Private placements
- Private equity
- Derivatives – equity funds
- Derivatives – credit contracts
- Derivatives – rates
- Other derivatives and 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 of the valuation models for level 2 and 3 investments, including the Company's independent price verification process.

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

- Evaluating the 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.
- Testing the operation of data integrity and change management controls relating to the models.
- Engaging our own valuation experts to perform independent valuations, where applicable.

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 2016.

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

Key audit matter

The 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 provisions. 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 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, 'long tail' lines of business (for example, Liability, US Asbestos and Environmental, Motor Liability and Workers' Compensation) 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 claims settlements are often less frequent but of higher impact. 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/or 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 test independently management's estimates of P&C loss reserves, and evaluating 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 and 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) 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, 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.

Valuation of uncertain tax items – initial probability assessment

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 'more-likely-than-not' tax assessments. Fluctuations 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 of the completeness of the uncertain tax items and management's assessment of them.

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

- Critically reviewing the '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.

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**

Audit expert
Auditor in charge

**Bret Griffin**

Zurich, 15 March 2017

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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 2016, the Company employed a worldwide staff at an average of 1 846 full time equivalents.

Financial year 2016

Following the legal entity restructuring in 2015, Swiss Re Asia Ltd, formerly European Reinsurance Company of Zurich Ltd, novated its European intragroup business to the Company effective as of 1 January 2016. The novation was performed at Swiss statutory book values resulting in a one-off increase in the Company's assets and liabilities of CHF 8 048 million without impacting the net income at inception. In addition, the Company successfully increased its transactional business, notably in the US, with the completion of a casualty quota share treaty and the assumption of in-force life blocks of business.

Net income amounted to CHF 875 million in 2016, compared to CHF 6 432 million in 2015. The prior year was significantly impacted by the legal entity restructuring. The Company sold its subsidiary Swiss Re Asia Ltd to Swiss Re Reinsurance Holding Company Ltd and generated a one-off realised gain of CHF 6 383 million in 2015, which was partly offset by a value adjustment on the investment in Swiss Re America Holding Corporation of CHF 1 821 million prior to its contribution to Swiss Re Reinsurance Holding Company Ltd. This net impact mainly led to the higher investment result of CHF 5 833 million in 2015, compared to CHF 787 million in 2016.

Reinsurance result

Reinsurance result amounted to CHF 1 238 million in 2016, compared to CHF 1 634 million in 2015. The Life & Health Reinsurance result experienced a loss of CHF 284 million, compared to a gain of CHF 481 million in 2015, reflecting mainly the decline of interest rates leading to an increase in reserves. The business volume increase was driven by the novated European treaties and transactional business. The Property & Casualty Reinsurance result increased from CHF 1 153 million to CHF 1 522 million in 2016, due to the novated European business and solid underwriting results, partly offset by a higher large loss burden, compared to the prior year, and a lower contribution from positive prior-year developments.

Property and casualty premiums earned increased from CHF 7 712 million in 2015 to CHF 11 237 million in 2016. The increase was driven by the novated European business, which impacted all lines of business, especially property, motor and casualty, and by large and tailored transactions in the US and Europe.

Life and health premiums earned increased from CHF 4 856 million in 2015 to CHF 6 343 million in 2016. Higher premiums earned were stemming from large transactions in the US and in Asia and the novated European business.

Property and casualty claims paid and claim adjustment expenses net and change in unpaid claims net increased from CHF 4 046 million to CHF 6 667 million in 2016, mostly reflecting business volume growth. In addition, the Company has experienced a higher loss burden in 2016, with more large property and agriculture losses. Further, prior-year developments have been less favourable than in 2015, especially in motor and casualty.

Life and health benefits net changed from a gain of CHF 1 647 million to a loss of CHF 3 653 million in 2016, mainly due to the assumptions of large in-force life blocks of business in the US and the set-up of reserves for the novation of the European business. The prior year was impacted by the reserve release for the one-off recapture of reinsurance treaties. These movements were offset in life and health claims paid and claim adjustment expenses net and change in unpaid claims net, which decreased by CHF 3 674 million in 2016. The lower expenses were primarily driven by the considerations received in 2016, respectively paid in 2015, for the aforementioned transactions. In addition, life and health benefits net increased due to the decline in interest rates in 2016, primarily in Europe and in Japan.

Acquisition costs net increased from CHF 3 026 million in 2015 to CHF 4 150 million in 2016, mainly related to the business volume increase in Europe and in the Americas, especially for casualty and life and health.

Investment result

Investment income decreased from CHF 8 575 million to CHF 1 779 million in 2016. The decrease was driven by lower realised gains on investments in subsidiaries and affiliated companies of CHF 6 381 million, mostly related to the sale of its subsidiary Swiss Re Asia Ltd to Swiss Re Reinsurance Holding Company Ltd which generated a one-off realised gain of CHF 6 383 million in 2015. The decrease in realised gains on and income from alternative investments were primarily driven by the sale of private equities to a subsidiary in 2015. In addition, the prior year benefited from the distribution of retained income from shares in investment funds.

Investment expenses decreased from CHF 2 418 million to CHF 695 million in 2016. The decrease was mainly related to lower value adjustments on subsidiaries and affiliated companies of CHF 1 640 million, primarily reflecting the non-recurring value adjustment on the investment in Swiss Re America Holding Corporation of CHF 1 821 million in 2015 prior to its contribution to Swiss Re Reinsurance Holding Company Ltd. Higher realised losses in equity securities and alternative investments in 2015 were mainly due to the vesting of a share based compensation plan and the sale of private equities to a subsidiary, respectively. In 2016, higher value adjustments on fixed income securities were driven by market deterioration.

Other income and expenses

The decrease in other net expenses from CHF 255 million in 2015 to CHF 158 million in 2016 was mainly related to lower net realised foreign exchange losses.

Assets

Total assets increased from CHF 90 263 million as of 31 December 2015 to CHF 101 291 million as of 31 December 2016.

Total investments increased from CHF 51 507 million to CHF 54 295 million in 2016. The increase was mainly due to the transfer of shares in investment funds from Swiss Re Asia Ltd of CHF 4 142 million in connection with the novation of the European business to the Company. This was partly offset by net repayments of intragroup loans of CHF 3 008 million, primarily from Swiss Re Reinsurance Holding Company Ltd, which were mainly reinvested in short-term investments.

Assets in derivative financial instruments increased from CHF 276 million to CHF 1 108 million in 2016, mainly as a result of the transfer of hedge instruments in connection with the life and health variable annuities business by US subsidiaries to the Company. The transferred assets mainly consisted of foreign exchange swaps and forwards and other derivative financial instruments on equity securities.

Funds held by ceding companies increased from CHF 13 639 million to CHF 18 840 million in 2016, mainly as a result of large casualty and life and health transactions in the US and the novated European business.

Reinsurance recoverable on technical provisions retroceded increased from CHF 7 996 million to CHF 8 708 million in 2016. This was due to higher retroceded property and casualty business from the Company's branches in Japan and Canada, experiencing large natural catastrophe events and increased life and health business retroceded from the Company's Beijing branch.

Premiums and other receivables from reinsurance increased from CHF 7 320 million to CHF 8 473 million in 2016, reflecting the higher business volume stemming from the novated European treaties and transactional business.

Liabilities

Total liabilities increased from CHF 76 003 million as of 31 December 2015 to CHF 89 089 million as of 31 December 2016.

Technical provisions gross increased from CHF 50 626 million to CHF 64 322 million in 2016, mainly driven by the novated European business. In addition, unpaid claims increased due to a higher loss burden in property and casualty and life and health policy benefits as a consequence of lower interest rates combined with higher business volume stemming from large transactions.

Liabilities in derivative financial instruments increased from CHF 588 million to CHF 1 877 million in 2016, mainly as a result of the transfer of hedge instruments in connection with the life and health variable annuities business by US subsidiaries to the Company. The transferred liabilities mainly consisted of foreign exchange swaps and forwards and other derivative financial instruments on equity securities.

Funds held under reinsurance treaties decreased from CHF 4 636 million to CHF 3 789 million in 2016, due to a restructuring of the intragroup retrocession between the Company's Beijing branch and Swiss Re Asia Ltd.

Other liabilities increased from CHF 5 369 million to CHF 6 396 million in 2016, mainly reflecting higher intragroup payables under securities lending agreements and securities sold under agreement to repurchase.

The decrease in subordinated liabilities of CHF 1 170 million to CHF 4 539 million in 2016 was mainly driven by the repayment of an intragroup hybrid loan and the maturity of an external subordinated debt.

Shareholder's equity

Shareholder's equity decreased from CHF 14 260 million as of 31 December 2015 to CHF 12 202 million as of 31 December 2016.

The decrease reflected the dividend payment in cash of CHF 2 833 million and the dividend in-kind of Swiss Re Management Ltd of CHF 100 million, partly offset by the net income for the financial year 2016 of CHF 875 million.

Future prospects and business development

Large transaction

In order to further align the management view and legal entity structure, the Company will transfer risks allocated to the Life Capital Business Unit to an affiliated company via novation and retrocession transactions, effective as of 1 January 2017, at Swiss statutory book values. For the retrocession, the Company sets up a reinsurance recoverable on technical provisions retroceded and funds held under reinsurance treaties, respectively, which will lead to an increase of assets and liabilities. This increase will be partly offset by a release of the technical provisions gross and the transfer of corresponding assets for the novated business. The net impact of the aforementioned will result in a one-off increase in the Company's assets and liabilities of approximately CHF 4.2 billion without impacting the net income at inception.

Property & Casualty Reinsurance business

Market environment

In 2016, the non-life reinsurance industry experienced a fifth year of strong, albeit lower, underwriting results. Reinsurance prices have continued to soften during 2016, but at a slower pace. Global premiums in non-life reinsurance are expected to grow in 2017 in real terms, based on increasing cessions from emerging markets. Advanced markets premium growth will reflect a moderation in rate pressures, slowing growth in the primary market and accelerating inflation.

Strategy and priorities

While natural catastrophe property rates still experienced pressure due to relatively low loss occurrence and abundant capital in the markets, rate decreases have started to slow down. The Company deployed less natural catastrophe capacity and will continue to do so where price levels fall below the Company's return hurdles. Specialty lines experienced rate pressure with notable differences by lines of business and markets. Casualty rates overall remained more stable with varying trends based on market and product.

The Company will continue to pursue its successful differentiation strategy while focusing on the bottom line under current market conditions. This means that the Company supports key partners and expects they will also reflect the support in differential terms. This positions the Company to access the business it wants and achieves above average rates.

Life & Health Reinsurance business

Market environment

Global premiums in traditional life reinsurance, consisting of mortality and morbidity, are estimated to have grown by 1.5% in real terms in 2016. In advanced markets, a 0.5% increase was driven by positive developments in Canada, the UK, Japan and Australia, while premiums in the US contracted as a result of lower cession rates and weakness in protection sales. In the emerging markets, premiums are estimated to have grown by 9%, driven largely by China. World premiums in traditional life reinsurance are expected to increase only marginally over the next two years, driven by the emerging markets, especially China. Premiums in the advanced markets will be roughly flat. Large transactions and longevity risk transfer will remain a growth area for life reinsurers.

Strategy and priorities

The Company expects life and health reinsurance business to be relatively flat in mature markets and to increase in high growth markets. In mature markets the prolonged low interest rate environment continues to have an unfavourable impact on primary sales. Cession rates in the US have decreased and have now generally flattened as primary insurers retain more risk. However, the Company sees a strong focus on capital, risk and balance sheet optimisation in mature markets, leading to positive opportunities for large transactions.

Recent political instability has given rise to uncertainty for growth in many regions of the world that could last two years or more. Market volatility is increasing in the short-term, with uncertain impact on Swiss Re's new business overall. The Company believes high growth markets will continue to see strong increases in primary life and, in particular, health volumes, while cession rates are expected to be stable.

The Company will continue to pursue growth opportunities in high growth markets and in large transactions, including longevity deals. The Company is responding to the expanding need for health protection driven by ageing societies and the Company will apply its experience to help reduce the protection gap in all regions.

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 investment outlook for 2017, government bond yields are expected to rise from current levels, in particular in the US with smaller rises in the UK and Germany. The outlook is neutral for corporate bonds, with modest spread widening expected in the US while Eurozone corporate bonds remain tight, supported by the European Central Bank asset purchase program. The outlook is similarly neutral for equities with a preference for the US given better near-term earnings outlook.

Risk assessment

The Company's Board of Directors has issued a mandate to establish a Risk Management function to provide independent risk taking oversight within the Business Unit Reinsurance. In executing this task, Reinsurance's 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 of the Company's assets and liabilities.
- 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 the Business Units.

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 is comprised of central teams providing specialised risk expertise and oversight, as well as dedicated risk teams for the Reinsurance, Corporate Solutions, and Life Capital (formerly Admin Re®) Business Units.

The Business Unit Reinsurance Risk Management teams are led by a dedicated Chief Risk Officer who reports directly to the Group CRO, with a secondary reporting line to the CEO Reinsurance. The Business Unit Reinsurance CRO is responsible for risk oversight within the Business Unit Reinsurance, as well as for establishing the proper risk governance to ensure efficient risk identification, assessment and control. The CRO Reinsurance is supported by functional, regional and legal entity CROs who are responsible for overseeing risk management issues that arise at regional or legal entity level.

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 functional 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 CROs at Group, Business Unit and lower levels 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 Business Unit Reinsurance and its subsidiaries, the setting of the reserves is performed by valuation actuaries within the P&C and L&H Business Management units. Business Unit Reinsurance and Group 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 Business Unit and 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	2015	2016
Reinsurance			
Premiums written gross		17 448	22 976
Premiums written retroceded		-4 403	-4 207
Premiums written net		13 045	18 769
Change in unearned premiums gross		-518	-1 112
Change in unearned premiums retroceded		41	-77
Change in unearned premiums net		-477	-1 189
Premiums earned		12 568	17 580
Other reinsurance revenues		1 209	1 003
Allocated investment return		324	297
Total revenues from reinsurance business		14 101	18 880
Claims paid and claim adjustment expenses gross		-11 244	-2 523
Claims paid and claim adjustment expenses retroceded		2 825	2 375
Claims paid and claim adjustment expenses net		-8 419	-148
Change in unpaid claims gross		-475	-8 545
Change in unpaid claims retroceded		-548	304
Change in unpaid claims net		-1 023	-8 241
Life and health benefits gross		1 515	-4 101
Life and health benefits retroceded		132	448
Life and health benefits net		1 647	-3 653
Claims and claim adjustment expenses and life and health benefits		-7 795	-12 042
Change in equalisation provision		-344	-
Claims incurred		-8 139	-12 042
Acquisition costs gross		-4 350	-5 373
Acquisition costs retroceded		1 324	1 223
Acquisition costs net		-3 026	-4 150
Operating costs		-847	-804
Acquisition and operating costs		-3 873	-4 954
Other reinsurance expenses		-455	-646
Total expenses from reinsurance business		-12 467	-17 642
Reinsurance result		1 634	1 238

CHF millions	Note	2015	2016
Investments	2		
Investment income		8 575	1 779
Investment expenses		-2 418	-695
Allocated investment return		-324	-297
Investment result		5 833	787
Other financial income and expenses			
Other financial income		456	1 906
Other financial expenses		-749	-2 254
Operating result		7 174	1 677
Interest expenses on debt and subordinated liabilities		-404	-418
Other income and expenses			
Other income		93	247
Other expenses		-348	-405
Income before income tax expense		6 515	1 101
Income tax expense		-83	-226
Net income		6 432	875

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	2015	2016
Investments			
Investments in subsidiaries and affiliated companies		13 334	13 094
Fixed income securities		17 031	17 382
Loans		11 764	8 752
Mortgages		806	808
Equity securities		590	611
<i>Shares in investment funds</i>		4 786	9 197
<i>Short-term investments</i>		2 625	3 838
<i>Alternative investments</i>		571	613
Other investments		7 982	13 648
Total investments		51 507	54 295
Financial and reinsurance assets			
Assets in derivative financial instruments		276	1 108
Funds held by ceding companies		13 639	18 840
Cash and cash equivalents		1 917	2 226
<i>Reinsurance recoverable from unpaid claims</i>	3	4 446	4 732
<i>Reinsurance recoverable from liabilities for life and health policy benefits</i>	3	1 202	1 707
<i>Reinsurance recoverable from unearned premiums</i>	3	2 300	2 223
<i>Reinsurance recoverable from provisions for profit commissions</i>	3	48	46
Reinsurance recoverable on technical provisions retroceded		7 996	8 708
Tangible assets		61	15
Deferred acquisition costs	3	1 287	1 595
Intangible assets		79	100
Premiums and other receivables from reinsurance	3	7 320	8 473
Other receivables		232	183
Other assets		5 715	5 412
Accrued income		234	336
Total financial and reinsurance assets		38 756	46 996
Total assets		90 263	101 291

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

Liabilities and shareholder's equity

CHF millions	Note	2015	2016
Liabilities			
Technical provisions gross			
Unpaid claims	3	31 365	39 365
Liabilities for life and health policy benefits	3	11 493	15 728
Unearned premiums	3	5 986	7 147
Provisions for profit commissions	3	238	538
Equalisation provision	3	1 544	1 544
Total technical provisions gross		50 626	64 322
Non-technical provisions			
Tax provisions		46	209
Provision for currency fluctuation		921	938
Other provisions		486	215
Total non-technical provisions		1 453	1 362
Debt			
		3 888	3 706
Liabilities from derivative financial instruments			
		588	1 877
Funds held under reinsurance treaties			
		4 636	3 789
Reinsurance balances payable	3	3 532	2 898
Other liabilities			
		5 369	6 396
Accrued expenses			
		202	200
Subordinated liabilities			
		5 709	4 539
Total liabilities		76 003	89 089
Shareholder's equity			
	4		
Share capital		34	34
<i>Legal reserves from capital contributions</i>		6 778	6 778
Legal capital reserves		6 778	6 778
Legal profit reserves		650	650
Voluntary profit reserves		272	3 839
Retained earnings brought forward		94	26
Net income for the financial year		6 432	875
Total shareholder's equity		14 260	12 202
Total liabilities and shareholder's equity		90 263	101 291

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 change

The new group wide service company Swiss Re Management Ltd, as a wholly-owned subsidiary of Swiss Re Ltd, started its operating activities as a provider for Swiss Re's Group Functions as of 1 January 2016. At that date, together with related assets and liabilities, employees which were formerly employed by the Company and provided services in the Swiss Re's Group Functions, were transferred to the newly established service company. This transfer led to a significant decrease of both, the number of employees and personnel expenses in the Company, and in return to higher service expenses of the Company for services provided newly by Swiss Re Management Ltd. As a result of the transfer, various line items of the Financial Statements as well as disclosure notes, such as outstanding leasing commitments, management fee contribution and auditor's fees, were impacted in 2016.

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 2016 financial year comprises the accounting period from 1 January 2016 to 31 December 2016.

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

The following assets are carried at cost, less necessary and legally permissible depreciation:

- Investments in subsidiaries and affiliated companies
- Fixed income securities (other than zero-coupon bonds)
- Equity securities
- Shares in investment funds
- Alternative investments

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.

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.

Zero-coupon bonds reported under fixed income securities are measured at their amortised cost values.

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 maintained at their amortised cost values.

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.

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".

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.

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 values.

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.

Income statement classification

Interest expenses on debt were reclassified from other financial expenses to interest expenses on debt and subordinated liabilities. Therefore, the previously reported 2015 figures of other financial expenses and interest expenses on debt and subordinated liabilities with a respective amount of CHF 316 million have been changed accordingly.

2 Investment result

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
<i>Shares in investment funds</i>	11	–	20	31
<i>Short-term investments</i>	11	–	1	12
<i>Alternative investments</i>	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
<i>Shares in investment funds</i>	–	–28	–	–28
<i>Short-term investments</i>	–	–	–1	–1
<i>Alternative investments</i>	–	–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

CHF millions	Income	Value readjustments	Realised gains	2015 Total
Investment income				
Investments in subsidiaries and affiliated companies	21	1	6 383	6 405
Fixed income securities	656	112	224	992
Loans	125	-	-	125
Mortgages	7	-	-	7
Equity securities	19	9	107	135
<i>Shares in investment funds</i>	192	35	64	291
<i>Short-term investments</i>	43	-	4	47
<i>Alternative investments</i>	132	19	314	465
Other investments	367	54	382	803
Income from investment services	108	-	-	108
Investment income	1 303	176	7 096	8 575
CHF millions	Expenses	Value adjustments	Realised losses	2015 Total
Investment expenses				
Investments in subsidiaries and affiliated companies	-	-1 821	-	-1 821
Fixed income securities	-	-189	-55	-244
Loans	-	-8	-	-8
Equity securities	-	-30	-59	-89
<i>Shares in investment funds</i>	-	-36	-	-36
<i>Short-term investments</i>	-	-	-1	-1
<i>Alternative investments</i>	-	-28	-35	-63
Other investments	-	-64	-36	-100
Investment management expenses	-156	-	-	-156
Investment expenses	-156	-2 112	-150	-2 418
Allocated investment return				-324
Investment result				5 833

3 Assets and liabilities from reinsurance

CHF millions	2015			2016		
	Gross	Retro	Net	Gross	Retro	Net
Deferred acquisition costs	2 044	-757	1 287	2 334	-739	1 595
Premiums and other receivables from reinsurance	6 713	607	7 320	8 414	59	8 473
Deferred expenses on retroactive reinsurance policies ²	331	-26	305	209	-29	180
Unpaid claims	31 365	-4 446 ¹	26 919	39 365	-4 732¹	34 633
Liabilities for life and health policy benefits	11 493	-1 202 ¹	10 291	15 728	-1 707¹	14 021
Unearned premiums	5 986	-2 300 ¹	3 686	7 147	-2 223¹	4 924
Provisions for profit commissions	238	-48 ¹	190	538	-46¹	492
Equalisation provision	1 544	-	1 544	1 544	-	1 544
Reinsurance balances payable	1 876	1 656	3 532	1 278	1 620	2 898

¹ Reported under "Reinsurance recoverable on technical provisions retroceded" on page 116.

² Reported under "Other assets" on page 116.

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 1.1.2015	34	8 057	650	272	28	1 666	10 707
Allocations relating to the dividend paid		-1 279		2 879	66	-1 666	-
Dividend for the financial year 2014				-2 879			-2 879
Net income for the financial year						6 432	6 432
Shareholder's equity 31.12.2015	34	6 778	650	272	94	6 432	14 260
Shareholder's equity 1.1.2016	34	6 778	650	272	94	6 432	14 260
Allocations relating to the dividend paid				6 500	-68	-6 432	-
Dividend for the financial year 2015				-2 933			-2 933
Net income for the financial year						875	875
Shareholder's equity 31.12.2016	34	6 778	650	3 839	26	875	12 202

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 2016 and 2015, 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.

In addition, as a component of the Swiss Re Group's financing structure, the Company has guaranteed CHF 1 016 million (2015: CHF 1 000 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 2016 and 2015, 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	2015	2016
Fair value of securities transferred to third parties	15 887	16 336
Fair value of securities transferred to affiliated companies	18 155	16 066
Total	34 042	32 402

8 Security deposits

To secure the technical provisions at the 2016 balance sheet date, securities with a book value of CHF 14 009 million (2015: CHF 13 017 million) were deposited in favour of ceding companies, of which CHF 4 088 million (2015: CHF 4 584 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 2016, total commitments remaining uncalled were CHF 495 million (2015: CHF 885 million).

In November 2015, the Company entered into a subordinated funding facility with its parent company Swiss Re Ltd under which the Company has the right, among others, to issue subordinated notes to Swiss Re Ltd of up to USD 700 million at any time before August 2030. For its various rights, the Company owes Swiss Re Ltd an unconditional fixed commitment fee, payable in annual instalments calculated as 5.80% on the total facility amount. Annually, the Company receives a partial reimbursement of the commitment fee equal to 2.22% per annum on the undrawn facility amount. As of 31 December 2016 and 2015, the facility was undrawn.

In April 2016, the Company entered into a subordinated funding facility with its parent company Swiss Re Ltd under which the Company has the right, among others, to issue subordinated notes to Swiss Re Ltd of up to USD 400 million at any time before February 2036. For its various rights, the Company owes Swiss Re Ltd an unconditional fixed commitment fee, payable in annual instalments calculated as 6.10% on the total facility amount. Annually, the Company receives a partial reimbursement of the commitment fee equal to 2.13% per annum on the undrawn facility amount. As of 31 December 2016, the facility was undrawn.

In June 2016, the Company entered into a subordinated funding facility with its parent company Swiss Re Ltd under which the Company has the right, among others, to issue subordinated notes to Swiss Re Ltd of up to USD 800 million at any time before August 2032. For its various rights, the Company owes Swiss Re Ltd an unconditional fixed commitment fee, payable in annual instalments calculated as 5.68% on the total facility amount. Annually, the Company receives a partial reimbursement of the commitment fee equal to 1.95% per annum on the undrawn facility amount. As of 31 December 2016, the facility was undrawn.

10 Leasing contracts

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

CHF millions	2015	2016
2016	24	–
2017	20	11
2018	16	6
2019	9	4
2020	9	4
After 2021	8	10
Total operating leases, net	86	35

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 2016 and 2015, Swiss Reinsurance Company Ltd held the following direct and material indirect investments in subsidiaries and affiliated companies:

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%

As of 31 December 2015	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%
SCP de Milo S.à.r.l.	Luxembourg	Luxembourg	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 Services 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 Management Ltd	Switzerland	Adliswil	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 Treasury (Belgium) N.V.	Belgium	Brussels	100%	100%
Swiss Re Services India Private Ltd	India	Mumbai	100%	100%
Swiss Re Shared Services (India) Private Ltd	India	Bangalore	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 2016 balance sheet date of CHF 8 245 million (2015: CHF 9 597 million). Thereof CHF 5 978 million (2015: CHF 7 236 million) were due within one to five years and CHF 2 267 million (2015: CHF 2 361 million) were due after five years.

As of 31 December 2016, 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	CHF	320	7.250%	2017	320
Senior bond	2011	CHF	600	2.125%	2017	600
Subordinated bond	2007	AUD	300	7.635%	2017	221
Subordinated bond	2007	AUD	450	2.015%	2017	331
Subordinated bond	2012	USD	750	8.250%	2018	762
Subordinated bond	2013	USD	750	6.375%	2019	762
Subordinated bond	2007	GBP	500	6.302%	2019	628
Subordinated bond	2013	CHF	175	7.500%	2020	175
Subordinated bond	2012	EUR	500	6.625%	2022	536
Senior bond	2014	CHF	250	1.000%	2024	250
Subordinated bond	2015	EUR	750	2.600%	2025	804
Senior bond	2015	CHF	250	0.750%	2027	250

13 Deposit arrangements

The following balances were related to deposit accounted reinsurance contracts:

CHF millions	2015	2016
Other reinsurance revenues	109	96
Claims paid and claim adjustment expenses gross	2	1
Claims paid and claim adjustment expenses retroceded	2	0
Operating costs	-3	-3
Other reinsurance expenses	-99	-47
Funds held by ceding companies	58	110
Premiums and other receivables from reinsurance	1 735	514
Reinsurance balances payable	2 000	923

14 Claims on and obligations towards affiliated companies

CHF millions	2015	2016
Loans	11 751	8 743
Assets in derivative financial instruments	-	-
Funds held by ceding companies	8 946	13 533
Premiums and other receivables from reinsurance	2 145	2 719
Other receivables	32	86
Other assets	1 827	1 941
Debt	2 788 ¹	2 605¹
Liabilities from derivative financial instruments	347	300
Funds held under reinsurance treaties	4 507	3 664
Reinsurance balances payable	1 988	1 861
Other liabilities	4 229 ²	4 937²
Subordinated liabilities	752	-

¹ Thereof at the 2016 balance sheet date CHF 2 178 million (2015: CHF 2 287 million) were towards the parent company Swiss Re Ltd.

² Thereof at the 2016 balance sheet date CHF 127 million (2015: CHF 8 million) were towards the parent company Swiss Re Ltd.

15 Release of undisclosed reserves

In 2016, net undisclosed reserves were released by an amount of CHF 253 million (2015: CHF 949 million).

16 Obligations towards employee pension fund

As of 31 December 2016, other liabilities included CHF 1 million (2015: CHF 4 million) payable to the employee pension fund.

17 Personnel information

As of 31 December 2016, the Company employed a worldwide staff at an average of 1 846 (2015: 4 018) full time equivalents. Personnel expenses for the 2016 financial year amounted to CHF 440 million (2015: CHF 1 079 million).

18 Management fee contribution

In 2016, management expenses of CHF 152 million (2015: CHF 710 million) were recharged to affiliated companies of the Company and invoiced to third parties. These recharges were reported net under "Operating costs", "Investment expenses" and "Other expenses".

19 Auditor's fees

In 2016, the Swiss Re Group incurred total auditor's fees of CHF 33 million (2015: CHF 35 million) and additional fees of CHF 4 million (2015: CHF 5 million), of which CHF 3 million (2015: CHF 17 million) and CHF 1 million (2015: CHF 3 million), respectively, incurred for the Company.

Proposal for allocation of disposable profit

The Board of Directors proposes to the Annual General Meeting of the Company, to be held on 24 March 2017, to approve the following allocation and payment of a cash dividend of USD 2 600 million, which must not exceed CHF 2 900 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 30 March 2017.

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 2 900 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 2 900 million. This threshold of CHF 2 900 million is presented in the below table and reflects the maximum amount in CHF to be paid.

Retained earnings

CHF millions	2015	2016
Retained earnings brought forward	94	26
Net income for the financial year	6 432	875
Disposable profit	6 526	901
Allocation to voluntary profit reserves	-6 500	-850
Retained earnings after allocation	26	51

Voluntary profit reserves

CHF millions	2015	2016
Voluntary profit reserves brought forward	272	3 839
Allocation from retained earnings	6 500	850
Voluntary profit reserves before proposed cash dividend	6 772	4 689
Proposed cash dividend (maximal amount in CHF of the proposed dividend in USD translated into CHF)	-2 833 ²	-2 900 ¹
Proposed dividend in-kind of Swiss Re Management Ltd	-100	-
Voluntary profit reserves after proposed cash dividend	3 839	1 789

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 2015 figure was recalculated based on the final cash dividend converted into CHF at spot rate on the settlement date.

The Board of Directors further proposes to the Annual General Meeting to approve the intragroup retrocession (IGR) novation and the new retrocession pursuant to the novation and retrocession agreements, effective as of 1 January 2017, between, among others, the Company and Swiss Re Life Capital Reinsurance Ltd (being an indirect subsidiary of the Company's sole shareholder, Swiss Re Ltd), such transactions being conducted based on Swiss statutory book values of the transferring assets and liabilities, which implies that the difference between the Swiss statutory book value and the higher fair market value (where applicable) of the transferring assets, as well as expectations of future profits associated with the novation and retrocession agreements, are transferred by the Company to Swiss Re Life Capital Reinsurance Ltd without compensation.

Zurich, 15 March 2017

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 114 to 129) for the year ended 31 December 2016.

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 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 2016 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.

Given the ongoing market volatility and macroeconomic uncertainty, determination of market values, where no observable market price exist, investment valuation continues to be an area of inherent risk. 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:

- Fixed income securitised products
- Fixed income mortgage and asset-backed securities
- Public placements
- Private equity
- Derivatives – equity contracts
- Derivatives – credit contracts
- Derivatives – rates
- Other derivatives and 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 of the valuation models for certain investments, including the Company's independent price verification process.

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

- Evaluating the 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.
- Testing the operation of data integrity and change management controls relating to the models.
- Engaging our own valuation experts to perform independent valuations, where applicable.

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 2016.

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

Key audit matter

The 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 provisions. 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 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, 'long tail' lines of business (for example, Liability, US Asbestos and Environmental, Motor Liability and Workers' Compensation) 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 claims settlements are often less frequent but of higher impact. 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/or 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 test independently management's estimates of P&C loss reserves, and evaluating 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 and 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) 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, 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 different valuation-method inputs.

The impairment assessment is considered a key audit matter due to the considerable judgement in performing the impairment assessment.

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.

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 value for all investments in subsidiaries are 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 and the additional proposal of the Board of Directors to approve the Novation and Retrocession Transaction (as described in the proposal for allocation of disposable profit) does not contradict with the Swiss law or the Company's Articles of Association related to capital protection. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers Ltd



Alex Finn
Audit expert
Auditor in charge



Bret Griffin

Zurich, 15 March 2017

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 cyclical nature 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.

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.

Market sentiment is dominated in large part by concerns over the trends exemplified by the outcome of the US presidential election and the UK referendum on European Union (EU) membership. Growth forecasts among the principal global economies remain uneven and uncertain in an environment of elevated political uncertainty. Stable, but uneven growth, in the Eurozone could suffer as a result of the potential impact of populism and anti-globalisation sentiments on upcoming elections in the Netherlands, France and Germany, and potentially Italy, during 2017. The planned withdrawal of the United Kingdom from the EU has created uncertainty not only for the United Kingdom but for the rest of the EU, and negotiations over withdrawal will likely continue to contribute to volatility and pose significant challenges for the EU, while also calling into question the ability of the EU to address significant ongoing structural challenges. The long-term effects of a withdrawal of the United Kingdom from the EU 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. Growth in China remains heavily dependent on government stimulus and credit expansion; it continues to face significant capital outflows, reflecting concerns over foreign currency, and its banking sector could be adversely impacted by rising interest rates. 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 new 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 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").

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.

There is an evolving focus on classifying certain insurance companies as systemically important as well. The Group could be designated as a global systemically important financial institution ("SIFI") under the framework for SIFIs developed 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. Separately, the International Association of Insurance Supervisors, an international body that represents insurance regulators and supervisors, has published and since refined its methodology for identifying global systemically important insurers ("G-SIIs") and also published a framework for supervision of internationally active insurance groups. If and when reinsurers are included in the list of G-SIIs, the Group could be so designated. Were the Group to be designated as a G-SII, it could be subject to one or both of the resulting regimes, once implemented, including capital standards under both regimes (the basic capital requirement for G-SIIs and the insurance capital standard for internationally active insurance groups), 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 triggered by the outcome of the UK referendum on EU membership could also impact the legislative and/or regulatory regimes to which the Group or the broader Swiss Re 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. These changes, or inconsistencies between the various regimes that apply to the Group, could increase the costs of doing business, 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 insurance and reinsurance industries, 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. Economic weakness, fiscal tightening and monetary policies are keeping government yields low, which impacts investment yields and affects the profitability of life savings products with interest rate guarantees. 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 re/insurance 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 business (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. 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 reinsurance 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 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 judgements, 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. 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 risks

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 hurricanes, windstorms, floods, earthquakes, acts of terrorism, man-made disasters such as industrial accidents, explosions, and fires, and pandemics) 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); cyclical nature of the industry; risks related to emerging claims and coverage issues (including, for example, trends to establish stricter building standards, which can lead to higher industry losses for earthquake cover based on higher replacement values); macro developments giving rise to emerging risks, such as climate change and technological developments (including greater exposure to cyber risks, 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. 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, for example, 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 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 expects that, over time, its structure will continue to evolve, and while to date all of the Swiss Re Group's principal operations, including the Group, remain wholly owned, in the future the Swiss Re Group may elect to partner with minority investors in or within one or more of the Swiss Re Group's business units or sub-groups within its business units, which could alter 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.

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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