Swiss Re

Swiss Reinsurance Company Consolidated

Annual Report 2020

Contents

Income statement

For the years ended 31 December

USD millions	Note	2019[1]	2020
Revenues			
Gross premiums written	4	36 642	**38 623**
Net premiums written	4	34 750	**36 336**
Change in unearned premiums		–1 585	**–494**
Premiums earned	3	33 165	**35 842**
Fee income from policyholders	3	261	**245**
Net investment income – non-participating business[2]	7	2 893	**2 501**
Net realised investment gains/losses – non-participating business[3]	7	1 517	**1 447**
Net investment result – unit-linked business	7	118	**–32**
Other revenues		33	**34**
Total revenues		37 987	**40 037**
Expenses			
Claims and claim adjustment expenses	3	–14 782	**–16 593**
Life and health benefits	3	–11 584	**–13 144**
Return credited to policyholders		–478	**–299**
Acquisition costs	3	–7 026	**–7 518**
Operating expenses		–2 296	**–2 406**
Total expenses before interest expenses		–36 166	**–39 960**
Income/loss before interest and income tax expense/benefit		1 821	**77**
Interest expenses		–592	**–519**
Income/loss before income tax expense/benefit		1 229	**–442**
Income tax expense/benefit	12	–164	**36**
Net income/loss before attribution of non-controlling interests		1 065	**–406**
Income/loss attributable to non-controlling interests		–67	**–32**
Net income/loss after attribution of non-controlling interests		998	**–438**
Net income/loss attributable to common shareholder		998	**–438**

[1] In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted.
[2] Total impairments for the years ended 31 December of USD 19 million in 2019 and of USD 5 million in 2020, respectively, were fully recognised in earnings.
[3] Total impairments for the years ended 31 December of USD 7 million in 2019 and of USD 25 million in 2020, respectively, were fully recognised in earnings.

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

Statement of comprehensive income

For the years ended 31 December

USD millions	2019[1]	2020
Net income/loss before attribution of non-controlling interests	1 065	**–406**
Other comprehensive income, net of tax:		
Change in net unrealised investment gains/losses	2 285	**2 333**
Change in other-than-temporary impairment	2	
Change in foreign currency translation	–83	**101**
Change in adjustment for pension benefits	–11	**–28**
Change in credit risk of financial liabilities at fair value option	–2	**1**
Other comprehensive income/loss attributable to non-controlling interests	44	**18**
Total comprehensive income before attribution of non-controlling interests	3 300	**2 019**
Comprehensive income/loss attributable to non-controlling interests	–111	**–50**
Total comprehensive income attributable to common shareholder	3 189	**1 969**

[1] In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted.

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RECLASSIFICATION OUT OF ACCUMULATED OTHER COMPREHENSIVE INCOME

For the years ended 31 December

2019[1] USD millions	Net unrealised investment gains/losses[2]	Other-than-temporary impairment[2]	Foreign currency translation[2, 3]	Adjustment for pension benefits[4]	Credit risk of financial liabilities at fair value option	Accumulated other comprehensive income
Balance as of 1 January	702	–3	–5 122	–768	5	–5 186
Change during the period	4 059		–14	–70	–2	3 973
Amounts reclassified out of accumulated other comprehensive income	–1 194		–7	44		–1 157
Tax	–580	2	–62	15		–625
Balance as of period end	2 987	–1	–5 205	–779	3	–2 995

2020 USD millions	Net unrealised investment gains/losses[2]	Other-than-temporary impairment[2]	Foreign currency translation[2, 3]	Adjustment for pension benefits[4]	Credit risk of financial liabilities at fair value option	**Accumulated other comprehensive income**
Balance as of 1 January	2 987	–1	–5 205	–779	3	**–2 995**
Change in group structure	202		–1			**201**
Change during the period	4 641		–98	–113	1	**4 431**
Amounts reclassified out of accumulated other comprehensive income	–1 971			80		**–1 891**
Tax	–539		200	5		**–334**
Balance as of period end	**5 320**	**–1**	**–5 104**	**–807**	**4**	**–588**

[1] In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted.
[2] Reclassification adjustment included in net income is presented in "Net realised investment gains/losses – non-participating business".
[3] Reclassification adjustment is limited to translation gains and losses realised upon sale or upon complete or substantially complete liquidation of an investment in a foreign entity.
[4] Reclassification adjustment included in net income is presented in "Operating expenses".

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

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Balance sheet

ASSETS

As of 31 December

USD millions	Note	2019[1]	2020
Investments	7, 8, 9		
Fixed income securities:			
Available-for-sale (including 13 092 in 2019 and 6 261 in 2020 subject to securities lending and repurchase agreements) (amortised cost: 2019: 68 275; 2020: 67 440)		72 247	**74 101**
Trading (including 1 911 in 2019 and 1 551 in 2020 subject to securities lending and repurchase agreements)		2 410	**1 938**
Equity securities at fair value through earnings (including 134 in 2019 and 59 in 2020 subject to securities lending and repurchase agreements)		2 373	**3 010**
Policy loans, mortgages and other loans		2 378	**3 158**
Investment real estate		2 526	**2 601**
Short-term investments (including 1 104 in 2019 and 3 667 in 2020 subject to securities lending and repurchase agreements)		5 070	**13 765**
Other invested assets		5 908	**9 616**
Investments for unit-linked business (including equity securities at fair value through earnings: 520 in 2019 and 463 in 2020)		520	**463**
Total investments		93 432	**108 652**
Cash and cash equivalents (including 1 065 in 2019 and 752 in 2020 subject to securities lending)		5 563	**4 651**
Accrued investment income		615	**575**
Premiums and other receivables		14 305	**14 661**
Reinsurance recoverable on unpaid claims and policy benefits		4 151	**4 061**
Funds held by ceding companies		9 818	**11 307**
Deferred acquisition costs	6	7 347	**7 990**
Acquired present value of future profits	6	1 097	**983**
Goodwill		3 741	**3 828**
Income taxes recoverable		296	**258**
Deferred tax assets	12	3 909	**5 134**
Other assets		2 368	**2 637**
Total assets		146 642	**164 737**

[1] In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted.

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LIABILITIES AND EQUITY

USD millions	Note	2019[1]	2020
Liabilities			
Unpaid claims and claim adjustment expenses	5	64 216	**71 919**
Liabilities for life and health policy benefits	8	18 665	**20 892**
Policyholder account balances		5 405	**5 192**
Unearned premiums		9 879	**10 696**
Funds held under reinsurance treaties		3 250	**4 809**
Reinsurance balances payable		1 795	**1 938**
Income taxes payable		300	**311**
Deferred and other non-current tax liabilities	12	5 129	**6 286**
Short-term debt	10	2 415	**1 935**
Accrued expenses and other liabilities	7	7 700	**11 011**
Long-term debt	10	8 737	**10 727**
Total liabilities		127 491	**145 716**
Equity			
Common shares, CHF 0.10 par value			
2019: 344 052 565; 2020: 344 052 565 shares authorised and issued		32	**32**
Additional paid-in capital		9 406	**10 040**
Treasury shares, net of tax		–19	**–17**
Accumulated other comprehensive income:			
Net unrealised investment gains/losses, net of tax		2 987	**5 320**
Other-than-temporary impairment, net of tax		–1	**–1**
Foreign currency translation, net of tax		–5 205	**–5 104**
Adjustment for pension and other post-retirement benefits, net of tax		–779	**–807**
Credit risk of financial liabilities at fair value option, net of tax		3	**4**
Total accumulated other comprehensive income		–2 995	**–588**
Retained earnings		11 213	**8 386**
Shareholder's equity		17 637	**17 853**
Non-controlling interests		1 514	**1 168**
Total equity		19 151	**19 021**
Total liabilities and equity		146 642	**164 737**

[1] In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted.

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Statement of shareholder's equity

For the years ended 31 December

USD millions	2019[1]	2020
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	8 701	**9 406**
Capital contribution	700	**631**
Share-based compensation	–3	
Realised gains/losses on treasury shares	8	**3**
Balance as of period end	9 406	**10 040**
Shares in Swiss Re Ltd, net of tax		
Balance as of 1 January	–19	**–19**
Change in shares in Swiss Re Ltd		**2**
Balance as of period end	–19	**–17**
Net unrealised investment gains/losses, net of tax		
Balance as of 1 January	702	**2 987**
Change in group structure		**202**
Changes during the period	2 285	**2 131**
Balance as of period end	2 987	**5 320**
Other-than-temporary impairment, net of tax		
Balance as of 1 January	–3	**–1**
Changes during the period	2	
Balance as of period end	–1	**–1**
Foreign currency translation, net of tax		
Balance as of 1 January	–5 122	**–5 205**
Change in group structure		**–1**
Changes during the period	–83	**102**
Balance as of period end	–5 205	**–5 104**
Adjustment for pension and other post-retirement benefits, net of tax		
Balance as of 1 January	–768	**–779**
Changes during the period	–11	**–28**
Balance as of period end	–779	**–807**
Credit risk of financial liabilities at fair value option, net of tax		
Balance as of 1 January	5	**3**
Changes during the period	–2	**1**
Balance as of period end	3	**4**

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

USD millions	2019[1]	2020
Retained earnings		
Balance as of 1 January	11 826	**11 213**
Change in group structure		**–165**
Transactions under common control	–33	**–554**
Net income/loss after attribution of non-controlling interests	998	**–438**
Dividends on common shares	–1 670	**–1 670**
Impact of ASU 2016-02[2]	92	
Balance as of period end	11 213	**8 386**
Shareholder's equity	17 637	**17 853**
Non-controlling interests		
Balance as of 1 January	1 949	**1 514**
Transactions with non-controlling interests	–431	**–396**
Income/loss attributable to non-controlling interests	67	**32**
Other comprehensive income attributable to non-controlling interests	44	**18**
Dividends to non-controlling interests	–115	
Balance as of period end	1 514	**1 168**
Total equity	19 151	**19 021**

[1] In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted.
[2] Impact of Accounting Standards Update. Please refer to the Annual Report 2019 for more details.

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

Statement of cash flows

For the years ended 31 December

USD millions	2019[1]	2020
Cash flows from operating activities		
Net income attributable to common shareholder	998	**–438**
Add income/loss attributable to non-controlling interests	67	**32**
Adjustments to reconcile net income to net cash provided/used by operating activities:		
Depreciation, amortisation and other non-cash items	207	**438**
Net realised investment gains/losses	–1 611	**–1 392**
Income from equity-accounted investees, net of dividends received	12	**36**
Change in:		
Technical provisions and other reinsurance assets and liabilities, net	5 917	**7 553**
Funds held by ceding companies and under reinsurance treaties	–110	**125**
Reinsurance recoverable on unpaid claims and policy benefits	353	**179**
Other assets and liabilities, net	59	**2 070**
Income taxes payable/recoverable	–259	**–283**
Trading positions, net	–38	**–537**
Net cash provided/used by operating activities	5 595	**7 783**
Cash flows from investing activities		
Fixed income securities:		
Sales	46 198	**46 694**
Maturities	5 563	**5 804**
Purchases	–52 376	**–48 479**
Net purchases/sales/maturities of short-term investments	–1 125	**–8 249**
Equity securities:		
Sales	1 882	**1 581**
Purchases	–1 229	**–1 595**
Securities purchased/sold under agreement to resell/repurchase, net	–862	**–1 495**
Net purchases/sales/maturities of other investments	227	**–1 771**
Net purchases/sales/maturities of investments held for unit-linked business	14	**18**
Net cash provided/used by investing activities	–1 708	**–7 492**
Cash flows from financing activities		
Policyholder account balances for unit-linked business:		
Deposits	22	**22**
Withdrawals	–66	**–67**
Issuance/repayment of long-term debt	2 386	**1 196**
Issuance/repayment of short-term debt	–2 719	**–638**
Purchase/sale of shares in Swiss Re Ltd.	3	**–1**
Dividends paid to parent	–1 670	**–1 670**
Capital contribution received from parent	700	
Transactions under common control	–155	**66**
Transactions with non-controlling interests	–467	**–200**
Dividends paid to non-controlling interests	–115	
Net cash provided/used by financing activities	–2 081	**–1 292**

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

USD millions	2019[1]	2020
Total net cash provided/used	1 806	**–1 001**
Effect of foreign currency translation	17	**89**
Change in cash and cash equivalents	1 823	**–912**
Cash and cash equivalents as of 1 January	3 740	**5 563**
Cash and cash equivalents as of 31 December	5 563	**4 651**

[1] In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted.

Interest paid was USD 484 million and USD 503 million (thereof USD 24 million and USD 7 million for letter of credit fees) for 2019 and 2020, respectively. Tax paid was USD 424 million and USD 247 million for 2019 and 2020, respectively.

A non-cash transaction of USD 201 million in 2020 decreased "Fixed income securities, available-for-sale" and "Non-controlling interests".

Cash and cash equivalents include restricted cash and cash equivalents, for instance pledged cash and cash equivalents (please refer to Note 7 "Investments").

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

Notes to the Group financial statements

1 Organisation and summary of significant accounting policies

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

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.

In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. The acquisition was accounted for as a common control transfer of a business. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted. The effect of the change is an increase in Group net income of USD 144 million and other comprehensive income of USD 27 million for the full year 2019 and an increase in Group net assets of USD 606 million as of 31 December 2019.

The Board of Directors of SRZ has decided that as of 1 January 2024 the Group's consolidated financial statements will be prepared in accordance with International Financial Reporting Standards (IFRS). Financial statements for periods ending on or prior to 31 December 2023 will continue to be prepared in accordance with US GAAP.

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 by incorporating 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 a manner consistent with the aforementioned approach, with consideration given to 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 investment 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 inputs 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 related to 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 2020, 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 securities are classified as available-for-sale (AFS) or trading. Fixed income 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 securities are carried at fair value with unrealised gains and losses recognised in earnings. A trading classification is used for securities that are bought and held principally for the purpose of selling them in the near term.

For fixed income securities AFS that are other-than-temporary impaired and for which there is not an intention to sell, the impairment is separated into (i) the estimated amount relating to credit loss, and (ii) the amount relating to all other factors. The estimated credit loss amount is recognised in earnings, with the remainder of the loss amount recognised in other comprehensive income. In cases where there is an intention or requirement to sell and the fair value is lower than cost expressed in functional currency terms, the cost of fixed income securities AFS is reduced to fair value, with a corresponding charge to realised investment losses. Subsequent recoveries are not recognised in earnings.

Equity investments are carried at fair value with unrealised gains and losses recognised in earnings, with the exception of equity method investments and investments that result in consolidation. Interest on fixed income securities is recorded in net investment income when earned and is adjusted for the amortisation of any purchase premium or discount. Dividends on equity securities are recognised as investment income on the ex-dividend date. Realised gains and losses on sales are included in earnings and are calculated using the specific identification method.

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

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

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

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

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

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

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

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

Derivative financial instrument assets are generally included in other invested assets and derivative financial instrument liabilities are generally included in accrued expenses and other liabilities. The Group also designates non-derivative and derivative monetary financial instruments as hedges of the foreign currency exposure of its net investment in certain foreign operations.

From the inception of the hedging relationship, remeasurement gains and losses on the designated non-derivative and derivative monetary financial instruments and translation gains and losses on the hedged net investment are reported as translation gains and losses in shareholder's equity.

Cash and cash equivalents

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

Deferred acquisition costs

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

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

Modifications of insurance and reinsurance contracts

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

Business combinations

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

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

Acquired present value of future profits

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

Goodwill

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

Other assets

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

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

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

Leases

The Group recognises for finance and operating leases 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. The lease right-of-use asset is included in "other assets" and the lease liability is included in "accrued expenses and other liabilities" on the balance sheet. Lease expense for lease payments is recognised on a straight-line basis over the lease term.

Additional disclosures are provided in Note 11 "Leases".

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 assets may not be realised.

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

The Group releases stranded tax effects for unrealised gains/losses on AFS securities to earnings on a straight-line basis over the average duration of the relevant AFS portfolio as an approximation of when the individual securities within the portfolio are sold or mature. For adjustment for pension and other post-retirement benefits, stranded tax effects are released to earnings when the relevant pension plan is terminated. For foreign currency translation, stranded tax effects are released to earnings in line with the recycling of the underlying foreign currency translation amounts.

Unpaid claims and claim adjustment expenses
Liabilities for unpaid claims and claim adjustment expenses for property and casualty and for 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. Reserves also are established for claims incurred but not reported, which are 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 by the Group. 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 COVID-19 pandemic has created additional uncertainty, both in respect of estimation of claims across the insurance and reinsurance industry and assessments of the wider potential global health and economic impacts. This uncertainty has been compounded by the evolving nature of the pandemic, including the spread of new strains of the virus, and is driven, among other factors, by lack of definitive answers about the impacts of the pandemic and related mitigation efforts on economies and societies across the globe, the efficacy of vaccines and other treatments, and the long-term health and social impacts of the pandemic on populations, as well as by evolving responses of governments and regulators, responses of businesses and outcomes of legal actions that have already been brought or may in the future be brought. The Group has recorded its best estimate of claims and claim adjustment expenses incurred as a result of the pandemic as at 31 December 2020, which best estimate reflects the Group's expectations based on current facts and circumstances. However, the Group may, as a result of the myriad uncertainties, need to change its estimates for claims incurred and additional future claims over time as underlying facts develop.

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 and mortality claims paid out in the form of an annuity. These claims are recognised at the estimated present value of the remaining ultimate net costs of the incurred claims.

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

Liabilities for life and health policy benefits
Liabilities for life and health policy benefits from reinsurance business are generally calculated using the net level premium method, based on assumptions as to investment yields, mortality, withdrawals, lapses and policyholder dividends. Assumptions are set at

the time the contract is issued or, in the case of contracts acquired by purchase, at the purchase date. The assumptions are based on projections from past experience, making allowance for possible adverse deviation. Interest rate assumptions for life and health (re)insurance benefit liabilities are based on estimates of expected investment yields. Assumed mortality rates are generally based on experience multiples applied to the actuarial select and ultimate tables based on industry experience.

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

Policyholder account balances

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

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

Funds held assets and liabilities

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

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

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

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

Shadow adjustments

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

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

Premiums

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

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

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

Insurance and reinsurance ceded

The Group uses retrocession arrangements to increase its aggregate underwriting capacity, to diversify its risk and to reduce the risk of catastrophic loss on reinsurance assumed. The ceding of risks to retrocessionaires does not relieve the Group of its obligations to its ceding companies. The Group regularly evaluates the financial condition of its retrocessionaires and monitors the concentration of credit risk to minimise its exposure to financial loss from retrocessionaires' insolvency. Premiums and losses ceded under retrocession contracts are reported as reductions of premiums earned and claims and claim adjustment expenses.

Amounts recoverable for ceded short- and long-duration contracts, including universal-life-type and investment contracts, are reported as assets in the accompanying consolidated balance sheet. The Group provides reserves for uncollectible amounts on reinsurance balances ceded, based on management's assessment of the collectability of the outstanding balances.

Receivables

Premium and claims receivables which have been invoiced are accounted for at face value. Together with assets arising from the application of the deposit method of accounting that meet the definition of financing receivables they are regularly assessed for impairment. Evidence of impairment is the age of the receivable and/or any financial difficulties of the counterparty. Allowances are set up on the net balance, meaning all balances related to the same counterparty are considered. The amount of the allowance is set up in relation to the time a receivable has been due and any 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 2020, the Group has a Leadership Performance Plan, restricted shares and a Global Share Participation Plan. The Group accounts for share-based payment transactions with employees using the fair value method. Under the fair value method, the fair value of the awards is recognised in earnings over the vesting period. Total compensation cost for share-based compensation plans recognised in net income was USD 12 million for the year ended 31 December 2020.

For share-based compensation plans which are settled in cash, compensation costs are recognised as liabilities, whereas for equity-settled plans, compensation costs are recognised as an accrual to additional paid-in capital within shareholder's equity. As of 31 December 2020, the accrual for share-based compensation plans in additional paid-in capital was USD 2 million.

Shares in Swiss Re Ltd

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

Subsequent events

Subsequent events for the current reporting period have been evaluated up to 17 March 2021. This is the date on which the financial statements are available to be issued.

Adoption of new accounting standards

In August 2018, the FASB issued ASU 2018-13, "Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement", an update to Topic 820, "Fair Value Measurement". The amendments in this ASU add, remove and modify some disclosure requirements on fair value measurement. The Group adopted the standard retrospectively on 1 January 2020 with the exception of the amendments which require prospective adoption. The applicable amendments of ASU 2018-13 are reflected in Note 8 "Fair value disclosures".

In August 2018, the FASB issued ASU 2018-14, "Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans", an update to Subtopic 715-20, "Compensation – Retirement Benefits – Defined Benefit Plans – General". The amendments in this Update remove, clarify and add disclosure requirements related to defined benefit pension and other postretirement plans. The Group adopted the annual disclosure requirements retrospectively as of year-end 2020, which are provided in Note 13 "Benefit plans".

In August 2018, the FASB issued ASU 2018-15, "Customer's Accounting for Implementation Cost Incurred in a Cloud Computing Arrangement That Is a Service Contract", a consensus of the FASB Emerging Issues Task Force (EITF) to Subtopic 350-40, "Internal-Use Software". The amendments in this ASU align the requirements for capitalising implementation costs incurred in a cloud computing arrangement (CCA) that is a service contract with the requirements for capitalising implementation costs incurred to develop or obtain internal use software. The update requires that implementation costs related to a CCA that is a service contract need to be capitalised based on the phase and nature of the costs. The Group adopted ASU 2018-15 prospectively on 1 January 2020. The adoption did not have a material impact on the Group's financial statements.

In October 2018, the FASB issued ASU 2018-17, "Targeted Improvements to Related Party Guidance for Variable Interest Entities", an update to Topic 810, "Consolidation". The standard requires that indirect interests held through related parties in common control arrangements should be considered on a proportional basis for determining whether fees paid to decision makers and service providers are variable interests. The Group adopted the ASU retrospectively on 1 January 2020. The adoption did not have an impact on the Group's financial statements.

In November 2018, the FASB issued ASU 2018-18, "Clarifying the Interaction between Topic 808 and Topic 606", an update to Topic 808, "Collaborative Arrangements". The amendments in this ASU provide guidance on whether certain transactions between collaborative arrangement participants should be accounted for with revenue under Topic 606 "Revenue from Contracts with Customers". In particular, the update requires that in a transaction with a collaborative arrangement participant that is not directly related to sales to third parties, the presentation of the transaction together with revenue recognised under Topic 606 is precluded. The Group adopted ASU 2018-18 on 1 January 2020 retrospectively to the date of initial application of Topic 606. The adoption did not have an impact on the Group's financial statements.

In April 2019, the FASB issued ASU 2019-04, "Codification Improvements to Topic 326, Financial Instruments – Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments". The ASU provides selective clarifications and corrections of guidance on credit losses, hedging, and recognising and measuring financial instruments. The Group adopted the standard on 1 January 2020 with the exception of the guidance relating to ASU 2016-13 "Measurement of Credit Losses". The adoption did not have an impact on the Group's financial statements. The amendments related to credit losses will be adopted together with ASU 2016-13 as required by the standard.

In March 2020, the FASB issued ASU 2020-03, "Codification Improvements to Financial Instruments". The amendments in this ASU address seven specific issues identified related to financial instruments with the aim to improve and clarify the Codification, correct unintended application of current guidance and eliminate inconsistencies. The Group adopted issues 1, 2, 3, 4 and 5 on 9 March 2020, which is the issuance date of the ASU. The adoption did not have an impact on the Group's financial statements. Issues 6 and 7 will be adopted together with ASU 2016-13 "Measurement of Credit Losses" as required by the standard.

In March 2020, the FASB issued ASU 2020-04, "Facilitation of the Effects of Reference Rate Reform on Financial Reporting", an update to Topic 848, "Reference Rate Reform". In response to concerns about structural risks of interbank offered rates (IBORs) and, particularly, the risk of cessation of the London Interbank Offered Rate (LIBOR), regulators in several jurisdictions around the world have undertaken reference rate reform initiatives to identify alternative reference rates. The amendments in this update provide optional expedients and exceptions for applying US GAAP accounting principles to contracts, hedging relationships and other transactions that reference LIBOR or another reference rate expected to be discontinued because of these reference rate reform initiatives. The Group adopted ASU 2020-04 on 12 March 2020, which is the issuance date of the standard. There is a choice to apply the guidance by Topic or industry Subtopic at any time prospectively during the effective period from 12 March 2020 through 31 December 2022. As of 31 December 2020, the Group applied the guidance to Topic 815 related to changes to the critical terms of a hedging relationship due to reference rate reform as well as to Topic 944 related to changes resulting from the replacement of discontinued reference rates included in contracts within the scope of Topic 944, "Financial Services – Insurance". While these elections did not have a material impact on the Consolidated Financial Statements, they ease the administrative burden of accounting for contracts impacted by the reference rate reform.

Future adoption of new accounting standards

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 is applicable to all financial assets such as financial instruments that are measured at amortised cost, available-for-sale debt securities and reinsurance recoverables. The objective of the expected credit loss model is that a reporting entity recognises its estimate of expected credit losses incorporating forward-looking information in a valuation allowance for financial assets in scope. As amended by ASU 2019-10 "Effective Dates", ASU 2016-13 is effective for annual and interim periods beginning after 15 December 2022. For most affected financial assets, the ASU must be adopted using a modified retrospective approach, with a cumulative effect adjustment recorded to opening retained earnings on the adoption date. The Group is currently assessing the impact of the new requirements.

In January 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment", an update to Topic 350, "Intangibles – Goodwill and Other". This ASU simplifies the subsequent measurement of goodwill and eliminates Step 2 from the goodwill impairment test. In computing the implied fair value of goodwill under Step 2, an entity has to perform procedures to determine the fair value of its assets and liabilities (including unrecognised assets and liabilities) at the impairment testing date following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. Instead, under the amendments in this update, an entity should perform its regular goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognise an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognised should not exceed the total amount of goodwill allocated to that reporting unit. As amended by ASU 2019-10 "Effective Dates", ASU 2017-04 is effective for goodwill impairment tests in annual and interim periods beginning after 15 December 2022. Early application of the ASU is permitted. The Group is currently assessing the impact of the new requirements.

In August 2018, the FASB issued ASU 2018-12, "Targeted Improvements to the Accounting for Long-Duration Contracts", an update to Topic 944, "Financial Services – Insurance". This ASU requires that the cash flows and net premium ratio will be updated for changes in insurance assumptions (eg mortality, morbidity, terminations) when measuring the liability for future policy benefits for nonparticipating traditional and limited-payment insurance and reinsurance contracts. There will no longer be a provision for adverse deviation. In addition, the discount rate used to reflect the time value of money in the calculation of the liability for future policy benefits will be standardised. Further, the ASU requires deferred acquisition costs (DAC) relating to most long-duration contracts to be amortised on a constant basis over the expected term of the contract. As amended by ASU 2020-11 "Effective Date and Early Application", ASU 2018-12 is effective for annual periods beginning after 15 December 2024, and interim periods beginning after 15 December 2025. Due to the decision of the Board of Directors of SRZ to prepare the Group's consolidated financial statements in accordance with IFRS beginning 1 January 2024, the Group does not plan to adopt ASU 2018-12.

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 over 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.

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). Cross-segmental dividends and gains and losses on certain one-off transfers and transactions between segments are accounted for through segmental shareholders' equity.

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 Unit operates globally, both through brokers and directly with clients, and provides a large range of solutions for risk and capital management. Clients include stock and mutual insurance companies as well as public sector and governmental entities. In addition to traditional reinsurance solutions, Reinsurance 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, certain re/insurance contracts that the Group assumes and cedes from/to affiliated companies within the Swiss Re Group, but outside the Group, as well as reinsurance and insurance business in run-off.

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. This includes significant intra-group reinsurance arrangements, recharge of trademark licence fees and intersegmental funding.

a) Business segments – income statement
For the year ended 31 December

2019[1] USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Revenues					
Gross premiums written	21 562	14 452	1 561	–933	36 642
Net premiums written	20 882	12 734	1 134		34 750
Change in unearned premiums	–1 607	101	–79		–1 585
Premiums earned	19 275	12 835	1 055		33 165
Fee income from policyholders		169	92		261
Net investment income – non-participating business	1 419	1 207	482	–215	2 893
Net realised investment gains/losses – non-participating business	883	628	6		1 517
Net investment result – unit-linked business		118			118
Other revenues	18	4	11		33
Total revenues	21 595	14 961	1 646	–215	37 987
Expenses					
Claims and claim adjustment expenses	–14 783		1		–14 782
Life and health benefits		–10 587	–997		–11 584
Return credited to policyholders		–162	–316		–478
Acquisition costs	–4 810	–1 975	–241		–7 026
Operating expenses	–1 189	–746	–361		–2 296
Total expenses before interest expenses	–20 782	–13 470	–1 914	0	–36 166
Income/loss before interest and income tax expense/benefit	813	1 491	–268	–215	1 821
Interest expenses	–352	–445	–10	215	–592
Income/loss before income tax expense/benefit	461	1 046	–278	0	1 229
Income tax expense/benefit	–65	–147	48		–164
Net income/loss before attribution of non-controlling interests	396	899	–230	0	1 065
Income/loss attributable to non-controlling interests			–67		–67
Net income/loss attributable to common shareholder	396	899	–297	0	998
Claims ratio in %	76.7				
Expense ratio in %	31.1				
Combined ratio in %	107.8				
Management expense ratio[2] in %		5.2			
Net operating margin[3] in %	3.8	10.0			4.8

[1] In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted.
[2] Management expense ratio is calculated as "Operating expenses" divided by "Total revenues" excluding "Net realised investment gains/losses – non-participating business" and "Net investment result – unit-linked business".
[3] Net operating margin is calculated as "Income before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked business".

Business segments – income statement
For the year ended 31 December

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Revenues					
Gross premiums written	21 512	15 067	2 314	–270	38 623
Net premiums written	20 636	13 657	2 043		36 336
Change in unearned premiums	196	68	–758		–494
Premiums earned	20 832	13 725	1 285		35 842
Fee income from policyholders		158	87		245
Net investment income – non-participating business	1 178	1 126	371	–174	2 501
Net realised investment gains/losses – non-participating business	683	439	325		1 447
Net investment result – unit-linked business		–32			–32
Other revenues	26	4	4		34
Total revenues	**22 719**	**15 420**	**2 072**	**–174**	**40 037**
Expenses					
Claims and claim adjustment expenses	–16 403		–190		–16 593
Life and health benefits		–12 211	–933		–13 144
Return credited to policyholders		5	–304		–299
Acquisition costs	–5 104	–1 999	–415		–7 518
Operating expenses	–1 193	–782	–431		–2 406
Total expenses before interest expenses	**–22 700**	**–14 987**	**–2 273**	**0**	**–39 960**
Income/loss before interest and income tax expense/benefit	**19**	**433**	**–201**	**–174**	**77**
Interest expenses	–321	–367	–5	174	–519
Income/loss before income tax expense/benefit	**–302**	**66**	**–206**	**0**	**–442**
Income tax expense/benefit	–58	–9	103		36
Net income/loss before attribution of non-controlling interests	**–360**	**57**	**–103**	**0**	**–406**
Income attributable to non-controlling interests			–32		–32
Net income/loss attributable to common shareholder	**–360**	**57**	**–135**	**0**	**–438**
Claims ratio in %	78.8				
Expense ratio in %	30.2				
Combined ratio in %	109.0				
Management expense ratio[1] in %		5.2			
Net operating margin[2] in %	0.1	2.8			0.2

[1] Management expense ratio is calculated as "Operating expenses" divided by "Total revenues" excluding "Net realised investment gains/losses – non-participating business" and "Net investment result – unit-linked business".
[2] Net operating margin is calculated as "Income before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked business".

Business segments – balance sheet
As of 31 December

2019[1] USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Total assets	89 269	67 026	15 646	–25 299	146 642

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Total assets	**100 973**	**68 363**	**14 422**	**–19 021**	**164 737**

[1] In 2020, Swiss Re Reinsurance Holding Company Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. As a result, Swiss Re Nexus Reinsurance Company Ltd is included in the financial statements and the comparative information for 2019 has been retrospectively adjusted.

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

2019 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	7 927	10 497	3 138		21 562
Net premiums written	7 329	10 452	3 101		20 882
Change in unearned premiums	–122	–1 166	–319		–1 607
Premiums earned	7 207	9 286	2 782		19 275
Net investment income				1 419	1 419
Net realised investment gains/losses				883	883
Other revenues				18	18
Total revenues	7 207	9 286	2 782	2 320	21 595
Expenses					
Claims and claim adjustment expenses	–5 328	–7 675	–1 780		–14 783
Acquisition costs	–1 365	–2 758	–687		–4 810
Operating expenses	–610	–395	–184		–1 189
Total expenses before interest expenses	–7 303	–10 828	–2 651	0	–20 782
Income/loss before interest and income tax expense	–96	–1 542	131	2 320	813
Interest expenses				–352	–352
Income/loss before income tax expense	–96	–1 542	131	1 968	461
Claims ratio in %	73.9	82.6	64.0		76.7
Expense ratio in %	27.4	34.0	31.3		31.1
Combined ratio in %	101.3	116.6	95.3		107.8

Property & Casualty Reinsurance business segment – by line of business

For the year ended 31 December

2020 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	9 001	9 445	3 066		21 512
Net premiums written	8 278	9 364	2 994		20 636
Change in unearned premiums	–28	245	–21		196
Premiums earned	8 250	9 609	2 973		20 832
Net investment income				1 178	1 178
Net realised investment gains/losses				683	683
Other revenues				26	26
Total revenues	**8 250**	**9 609**	**2 973**	**1 887**	**22 719**
Expenses					
Claims and claim adjustment expenses	–6 785	–7 570	–2 048		–16 403
Acquisition costs	–1 640	–2 732	–732		–5 104
Operating expenses	–601	–440	–152		–1 193
Total expenses before interest expenses	**–9 026**	**–10 742**	**–2 932**	**0**	**–22 700**
Income/loss before interest and income tax expense	**–776**	**–1 133**	**41**	**1 887**	**19**
Interest expenses				–321	–321
Income/loss before income tax expense	**–776**	**–1 133**	**41**	**1 566**	**–302**
Claims ratio in %	82.2	78.8	68.9		78.8
Expense ratio in %	27.2	33.0	29.8		30.2
Combined ratio in %	109.4	111.8	98.7		109.0

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

For the year ended 31 December

2019 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	10 123	4 329		14 452
Net premiums written	8 522	4 212		12 734
Change in unearned premiums	126	–25		101
Premiums earned	8 648	4 187		12 835
Fee income from policyholders	169			169
Net investment income – non-participating business	912	295		1 207
Net realised investment gains/losses – non-participating business	–24		652	628
Net investment result – unit-linked business	118			118
Other revenues	3	1		4
Total revenues	9 826	4 483	652	14 961
Expenses				
Life and health benefits	–7 316	–3 271		–10 587
Return credited to policyholders	–162			–162
Acquisition costs	–1 295	–680		–1 975
Operating expenses	–472	–274		–746
Total expenses before interest expenses	–9 245	–4 225	0	–13 470
Income before interest and income tax expense	581	258	652	1 491
Interest expenses			–445	–445
Income before income tax expense	581	258	207	1 046
Management expense ratio[1] in %	4.8	6.1		5.2
Net operating margin[2] in %	6.0	5.8		10.0

[1] Management expense ratio is calculated as "Operating expenses" divided by "Total revenues" excluding "Net realised investment gains/losses – non-participating business" and "Net investment result – unit-linked business".
[2] Net operating margin is calculated as "Income before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked business".

Life & Health Reinsurance business segment – by line of business

For the year ended 31 December

2020 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	10 291	4 776		15 067
Net premiums written	9 156	4 501		13 657
Change in unearned premiums	36	32		68
Premiums earned	9 192	4 533		13 725
Fee income from policyholders	158			158
Net investment income – non-participating business	858	268		1 126
Net realised investment gains/losses – non-participating business	54	–12	397	439
Net investment result – unit-linked business	–32			–32
Other revenues	3	1		4
Total revenues	**10 233**	**4 790**	**397**	**15 420**
Expenses				
Life and health benefits	–8 594	–3 617		–12 211
Return credited to policyholders	5			5
Acquisition costs	–1 309	–690		–1 999
Operating expenses	–519	–263		–782
Total expenses before interest expenses	**–10 417**	**–4 570**	**0**	**–14 987**
Income/loss before interest and income tax expense	**–184**	**220**	**397**	**433**
Interest expenses			–367	–367
Income/loss before income tax expense	**–184**	**220**	**30**	**66**
Management expense ratio[1] in %	5.1	5.5		5.2
Net operating margin[2] in %	-1.8	4.6		2.8

[1] Management expense ratio is calculated as "Operating expenses" divided by "Total revenues" excluding "Net realised investment gains/losses – non-participating business" and "Net investment result – unit-linked business".

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

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

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

USD millions	2019	2020
Americas	17 171	19 226
Europe (including Middle East and Africa)	10 083	11 253
Asia-Pacific	8 051	7 818
Total	35 305	**38 297**

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

USD millions	2019	2020
United States	14 879	16 399
United Kingdom	2 897	3 277
China	2 107	2 094
Australia	1 863	1 683
Japan	1 610	1 471
Switzerland	1 014	1 325
Canada	1 064	1 150
Germany	1 114	1 128
Netherlands	626	992
France	822	846
Bermuda	306	762
Other	7 003	7 170
Total	35 305	**38 297**

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

3 Insurance information

Premiums earned and fees assessed against policyholders

For the years ended 31 December

2019 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Premiums earned, thereof:				
Direct		14	57	71
Reinsurance	19 930	14 057	986	34 973
Intra-group transactions (assumed and ceded)		–15	15	0
Premiums earned before retrocession to external parties	19 930	14 056	1 058	35 044
Retrocession to external parties	–655	–1 221	–3	–1 879
Net premiums earned	19 275	12 835	1 055	33 165
Fee income from policyholders, thereof:				
Direct				0
Reinsurance		170	91	261
Gross fee income before retrocession to external parties		170	91	261
Retrocession to external parties		–1	1	0
Net fee income	0	169	92	261

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Premiums earned, thereof:				
Direct			73	73
Reinsurance	21 623	14 912	1 444	37 979
Intra-group transactions (assumed and ceded)	7	225	–232	0
Premiums earned before retrocession to external parties	21 630	15 137	1 285	38 052
Retrocession to external parties	–798	–1 412		–2 210
Net premiums earned	**20 832**	**13 725**	**1 285**	**35 842**
Fee income from policyholders, thereof:				
Direct				0
Reinsurance		158	87	245
Gross fee income before retrocession to external parties		158	87	245
Retrocession to external parties				0
Net fee income	**0**	**158**	**87**	**245**

Claims and claim adjustment expenses

For the year ended 31 December

2019 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Claims paid, thereof:				
Gross claims paid to external parties	–13 224	–10 255	–831	–24 310
Intra-group transactions (assumed and ceded)		10	–10	0
Claims before receivables from retrocession to external parties	–13 224	–10 245	–841	–24 310
Retrocession to external parties	538	1 052	1	1 591
Net claims paid	–12 686	–9 193	–840	–22 719
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:				
Gross – with external parties	–2 078	–1 393	–161	–3 632
Intra-group transactions (assumed and ceded)		1	–1	0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties	–2 078	–1 392	–162	–3 632
Retrocession to external parties	–19	–2	6	–15
Net unpaid claims and claim adjustment expenses; life and health benefits	–2 097	–1 394	–156	–3 647
Claims and claim adjustment expenses; life and health benefits	–14 783	–10 587	–996	–26 366

Acquisition costs

For the year ended 31 December

2019 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Acquisition costs, thereof:				
Gross acquisition costs with external parties	–4 934	–2 149	–245	–7 328
Intra-group transactions (assumed and ceded)		–2	2	0
Acquisition costs before impact of retrocession to external parties	–4 934	–2 151	–243	–7 328
Retrocession to external parties	124	176	2	302
Net acquisition costs	–4 810	–1 975	–241	–7 026

Claims and claim adjustment expenses

For the year ended 31 December

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Claims paid, thereof:				
Gross claims paid to external parties	–12 874	–11 900	–964	–25 738
Intra-group transactions (assumed and ceded)		–135	135	0
Claims before receivables from retrocession to external parties	–12 874	–12 035	–829	–25 738
Retrocession to external parties	512	1 228		1 740
Net claims paid	**–12 362**	**–10 807**	**–829**	**–23 998**
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:				
Gross – with external parties	–3 729	–1 499	–370	–5 598
Intra-group transactions (assumed and ceded)	–6	–70	76	0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties	–3 735	–1 569	–294	–5 598
Retrocession to external parties	–306	165		–141
Net unpaid claims and claim adjustment expenses; life and health benefits	**–4 041**	**–1 404**	**–294**	**–5 739**
Claims and claim adjustment expenses; life and health benefits	**–16 403**	**–12 211**	**–1 123**	**–29 737**

Acquisition costs

For the year ended 31 December

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Acquisition costs, thereof:				
Gross acquisition costs with external parties	–5 227	–2 248	–436	–7 911
Intra-group transactions (assumed and ceded)	–2	–19	21	0
Acquisition costs before impact of retrocession to external parties	–5 229	–2 267	–415	–7 911
Retrocession to external parties	125	268		393
Net acquisition costs	**–5 104**	**–1 999**	**–415**	**–7 518**

Reinsurance assets and liabilities

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

2019 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Assets					
Reinsurance recoverable on unpaid claims and policy benefits	2 325	4 887	2 981	–6 042	4 151
Deferred acquisition costs	2 613	4 529	205		7 347
Liabilities					
Unpaid claims and claim adjustment expenses	49 963	13 094	1 763	–604	64 216
Liabilities for life and health policy benefits		20 679	3 423	–5 437	18 665
Policyholder account balances		1 401	4 004		5 405

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Assets					
Reinsurance recoverable on unpaid claims and policy benefits	2 030	2 042	87	–98	4 061
Deferred acquisition costs	2 576	4 900	514		7 990
Liabilities					
Unpaid claims and claim adjustment expenses	55 267	14 863	1 885	–96	71 919
Liabilities for life and health policy benefits		20 207	686	–1	20 892
Policyholder account balances		1 303	3 889		5 192

Reinsurance recoverable on unpaid claims and policy benefits

As of 31 December 2019 and 2020, the Group had a reinsurance recoverable of USD 4 151 million and USD 4 061 million, respectively. The concentration of credit risk is regularly monitored and evaluated. The reinsurance programme with Berkshire Hathaway and subsidiaries accounted for 44%[1] and 41% of the Group's reinsurance recoverable as of year-end 2019 and 2020, respectively.

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

[1]The Group has revised the scope of its concentration of credit risk. The revision had no impact on the income statement or balance sheet of the Group. Comparative information for 2019 has been adjusted accordingly.

Reinsurance receivables

Reinsurance receivables as of 31 December were as follows:

USD millions	2019	**2020**
Premium receivables invoiced	4 093	3 377
Receivables invoiced from ceded re/insurance business	359	361
Assets arising from the application of the deposit method of accounting and meeting the definition of financing receivables	246	644
Recognised allowance	–29	–42

4 Premiums written

For the years ended 31 December

2019 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Gross premiums written, thereof:					
Direct		14	57		71
Reinsurance	21 562	14 014	998	–3	36 571
Intra-group transactions (assumed)		424	506	–930	0
Gross premiums written	21 562	14 452	1 561	–933	36 642
Intra-group transactions (ceded)		–506	–424	930	0
Gross premiums written before retrocession to external parties	21 562	13 946	1 137	–3	36 642
Retrocession to external parties	–680	–1 212	–3	3	–1 892
Net premiums written	20 882	12 734	1 134	0	34 750

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Consolidation	Total
Gross premiums written, thereof:					
Direct			73		73
Reinsurance	21 459	14 850	2 241		38 550
Intra-group transactions (assumed)	53	217		–270	0
Gross premiums written	21 512	15 067	2 314	–270	38 623
Intra-group transactions (ceded)			–270	270	0
Gross premiums written before retrocession to external parties	21 512	15 067	2 044		38 623
Retrocession to external parties	–876	–1 410	–1		–2 287
Net premiums written	**20 636**	**13 657**	**2 043**	**0**	**36 336**

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 years ended 31 December is presented as follows:

USD millions	2019	**2020**
Balance as of 1 January	58 719	64 216
Reinsurance recoverable	–2 673	–2 697
Deferred expense on retroactive reinsurance	–169	–168
Net balance as of 1 January	55 877	**61 351**
Incurred related to:		
Current year	24 810	29 116
Prior year	903	319
Amortisation of deferred expense on retroactive reinsurance and impact of commutations	–123	–36
Total incurred	25 590	**29 399**
Paid related to:		
Current year	–7 423	–8 562
Prior year	–15 296	–15 436
Total paid	–22 719	**–23 998**
Foreign exchange	142	1 997
Effect of acquisitions, disposals, new retroactive reinsurance and other items	2 461	427
Net balance as of period end	61 351	**69 176**
Reinsurance recoverable	2 697	2 552
Deferred expense on retroactive reinsurance	168	191
Balance as of period end	64 216	**71 919**

Prior-year development
Non-life claims development in the year ended 31 December 2020 on prior years is mainly driven by adverse development in casualty largely offset by favourable development in property. The deterioration in casualty mostly comes from adverse claims experience for liability in North America, partially offset by favourable development for accident & health and motor. Development for property is mainly due to reserve releases related to natural catastrophe events in Asia. Specialty was impacted by adverse claims experience in engineering and aviation, partially offset by positive claims experience and reduction of large losses for marine.

For life and health lines of business, development on prior years' unpaid claims is unfavourable. For health business, adverse experience in disability portfolios in Australia and the US led to unfavourable claims development. Claims development related to prior years for disability portfolios also includes an element of interest accretion for unpaid claims reported at an estimated present value. For life business, favourable development in the US, driven by positive experience, is partly offset by unfavourable development in Latin America and the UK due to adverse experience.

A summary of prior-year net claims and claim adjustment expenses development by lines of business for the years ended 31 December is shown below[1]:

USD millions	2019	**2020**
Line of business:		
Property	76	–421
Casualty	621	462
Specialty	–89	34
Life and health	295	244
Total	903	**319**

[1] Adverse development is shown as positive numbers, and represents a charge to the income statement. Favourable development is shown as negative, and represents a credit to the income statement.

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

At the end of 2020, the Group carried net reserves for US asbestos and environmental liabilities equal to USD 1 247 million. During 2020, the Group incurred net gains of USD 4 million and net paid losses of USD 72 million in relation to these liabilities.

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

Short duration contract unpaid claims and claim adjustment expenses

Basis of presentation for claims development information

This section of the note provides claims development information and information on reserves for claims relating to insured events that have occurred but have not yet been reported ("IBNR").

Claims development information and IBNR are presented on an accident year basis and by line of business for individually significant categories. 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. Amounts shown in the claims development tables are on a nominal basis, including cases where the Group discounts claims liabilities for measurement under US GAAP, and are net of external retrocession and retrocession between business segments to the extent that 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.

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

In the Life & Health Reinsurance segment, contracts classified as short duration include group life business, certain types of disability and long-term care contracts, group accident, health coverage including critical illness and medical expenses. The Group provides claims development information for Life & Health Reinsurance where reported accident year information is available and there is potential for claims development. This primarily applies to the group disability business in Australia and the UK. 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.

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

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

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

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

Some of the information provided in the following tables is Required Supplementary Information (RSI) under US GAAP and 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
The Group develops and recognises its own estimate of IBNR claims, which includes circumstances in which the cedents have 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. For reinsurance business, case reserves and estimated IBNR are reported by cedents and this IBNR is presented together with the Group's own estimate as IBNR in the claims development tables. For insurance business, reserving is performed similarly, except that estimates for case reserves and IBNR are performed by the Group.

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

In most cases, these standard actuarial techniques encompass a number of loss development factor techniques applied to claim tables of paid and reported losses. Other actuarial techniques may be applicable to specific categories. For instance, the analysis of frequency and severity could be applied in all disaggregation categories. Life contingency techniques for projecting regular payments related to bodily injury claims are applied to motor proportional, motor non-proportional, liability proportional, liability non-proportional and accident and health. In some cases, techniques specific to the projection of future payments for specific risks such as asbestos or pollution claims are applied to both proportional and non-proportional liability claims (see also separate section "US asbestos and environmental claims exposure" on page 37).

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

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

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

Property & Casualty Reinsurance – Property

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**thereof IBNR**
2011	*4 513*	*4 586*	*4 399*	*4 463*	*4 414*	*4 409*	*4 428*	*4 468*	*4 470*	4 482	23
2012		*2 772*	*2 597*	*2 393*	*2 349*	*2 318*	*2 303*	*2 303*	*2 297*	2 294	5
2013			*3 255*	*3 267*	*3 087*	*2 999*	*2 974*	*2 958*	*2 954*	2 947	–2
2014				*2 808*	*2 642*	*2 458*	*2 426*	*2 423*	*2 411*	2 423	9
2015					*2 914*	*2 840*	*2 667*	*2 634*	*2 592*	2 573	9
2016						*4 030*	*3 752*	*3 446*	*3 440*	3 411	10
2017							*6 132*	*6 041*	*5 802*	5 771	53
2018								*4 799*	*5 294*	5 019	74
2019	*RSI*								*5 351*	5 268	555
2020										7 363	4 385
Total										**41 551**	**5 121**

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

USD millions	Reporting year									
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	*704*	*2 524*	*3 371*	*3 835*	*4 140*	*4 248*	*4 376*	*4 401*	*4 416*	4 425
2012		*236*	*1 639*	*2 040*	*2 163*	*2 208*	*2 228*	*2 239*	*2 248*	2 250
2013			*550*	*2 076*	*2 601*	*2 802*	*2 865*	*2 887*	*2 904*	2 918
2014				*469*	*1 755*	*2 146*	*2 279*	*2 325*	*2 342*	2 362
2015					*472*	*1 696*	*2 229*	*2 402*	*2 482*	2 506
2016						*653*	*2 283*	*2 932*	*3 151*	3 239
2017							*1 002*	*3 736*	*4 845*	5 187
2018								*642*	*3 557*	4 175
2019	*RSI*								*944*	3 332
2020										1 330
Total										**31 724**
All liabilities before 2011										205
Liabilities for claims and claim adjustment expenses, net of reinsurance										**10 032**

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)	*16.8%*	*50.3%*	*17.7%*	*6.7%*	*3.1%*	*1.1%*	*1.2%*	*0.5%*	*0.2%*	*0.2%*

The liability for unpaid claims and claim adjustment expenses for property in Property & Casualty Reinsurance shows positive development on most recent accident years. Claims in accident year 2011 were at a high level due to several large natural catastrophes including the earthquake and tsunami in Japan, the earthquakes in Christchurch, New Zealand, and floods in Thailand. The 2017 accident year claims incurred are higher due to natural catastrophes which also affected 2018-2020 accident years. In addition the current accident year was impacted by COVID-19.

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

USD millions	Reporting year										
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**thereof IBNR**
2011	*650*	*708*	*731*	*678*	*636*	*632*	*606*	*599*	*598*	588	54
2012		*531*	*615*	*571*	*542*	*514*	*523*	*514*	*528*	526	58
2013			*741*	*764*	*772*	*766*	*770*	*760*	*757*	760	87
2014				*1 009*	*1 000*	*1 013*	*1 002*	*990*	*1 028*	1 036	157
2015					*1 280*	*1 329*	*1 418*	*1 493*	*1 564*	1 548	267
2016						*1 732*	*1 738*	*1 737*	*1 842*	1 892	573
2017							*1 985*	*2 096*	*2 239*	2 420	869
2018								*1 916*	*2 095*	2 241	1 245
2019	*RSI*								*2 744*	3 115	2 204
2020										2 999	2 692
Total										**17 125**	**8 206**

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

USD millions	Reporting year									
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	*2*	*110*	*185*	*255*	*341*	*387*	*422*	*446*	*468*	472
2012		*12*	*120*	*188*	*247*	*301*	*360*	*396*	*432*	436
2013			*13*	*131*	*238*	*354*	*437*	*513*	*567*	599
2014				*24*	*162*	*298*	*438*	*575*	*672*	755
2015					*35*	*214*	*431*	*662*	*915*	1 094
2016						*47*	*94*	*395*	*665*	906
2017							*50*	*257*	*551*	1 015
2018								*52*	*314*	597
2019	*RSI*								*84*	426
2020										114
Total										**6 414**
All liabilities before 2011										1 165
Liabilities for claims and claim adjustment expenses, net of reinsurance										**11 876**

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)	*2.2%*	*12.6%*	*13.4%*	*14.3%*	*13.0%*	*10.0%*	*7.0%*	*5.0%*	*2.3%*	*0.7%*

The increase in the incurred losses for accident years 2013 to 2020 is driven by volume increases of business being written. The increases in the incurred losses in reporting year 2020 for accident years 2016 to 2019 are driven by US business. The current accident year was impacted by COVID-19.

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

Property & Casualty Reinsurance – Liability, non-proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**thereof IBNR**
2011	415	444	482	441	397	363	355	341	342	347	31
2012		340	358	317	288	267	256	232	227	219	36
2013			421	402	365	309	283	260	261	255	56
2014				446	451	418	375	345	365	364	107
2015					1 860	1 901	1 869	1 886	1 910	1 886	129
2016						608	591	620	667	720	162
2017							500	517	600	649	213
2018								459	464	483	265
2019	RSI								2 424	2 395	543
2020										849	815
Total										**8 167**	**2 357**

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

USD millions	Reporting year									
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	1	10	66	114	141	149	162	176	194	212
2012		–4	11	35	53	85	100	115	130	139
2013			–2	11	37	60	84	109	133	145
2014				–2	8	40	71	101	142	169
2015					0	94	204	337	490	596
2016						14	224	250	303	365
2017							–2	18	48	124
2018								–1	21	72
2019	RSI								211	499
2020										10
Total										**2 331**
All liabilities before 2011										3 856
Liabilities for claims and claim adjustment expenses, net of reinsurance										**9 692**

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

Years	1	2	3	4	5	6	7	8	9	10
Liability, non-proportional (RSI)	0.9%	7.9%	8.8%	9.4%	9.5%	7.2%	6.9%	5.2%	4.6%	5.2%

The increase in incurred losses for accident year 2015 compared to other years is due to an increase in volume of business written in that year.

Accident year 2019 includes an Adverse Development Cover and a Loss Portfolio Transfer written with Swiss Re Corporate Solutions Ltd. Liabilities before 2011 include reserves for historic US Asbestos and Environmental losses. The current accident year was impacted by COVID-19.

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

Property & Casualty Reinsurance – Accident & Health
Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										thereof
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**IBNR**
2011	*233*	*253*	*248*	*240*	*243*	*237*	*237*	*233*	*232*	228	21
2012		*338*	*346*	*331*	*321*	*318*	*311*	*309*	*304*	297	22
2013			*354*	*360*	*346*	*336*	*328*	*326*	*321*	309	32
2014				*306*	*340*	*331*	*320*	*308*	*307*	292	42
2015					*439*	*436*	*414*	*404*	*395*	375	45
2016						*597*	*631*	*625*	*589*	583	129
2017							*737*	*771*	*732*	723	206
2018								*730*	*818*	814	187
2019	*RSI*								*807*	799	242
2020										901	533
Total										**5 321**	**1 459**

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

USD millions	Reporting year									
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	*48*	*122*	*143*	*154*	*163*	*168*	*177*	*180*	*183*	185
2012		*81*	*186*	*213*	*229*	*240*	*249*	*252*	*256*	258
2013			*56*	*144*	*185*	*209*	*222*	*230*	*236*	242
2014				*30*	*104*	*147*	*175*	*193*	*208*	215
2015					*62*	*139*	*192*	*225*	*244*	257
2016						*74*	*179*	*273*	*328*	358
2017							*96*	*235*	*336*	395
2018								*98*	*316*	458
2019	*RSI*								*113*	332
2020										122
Total										**2 822**
All liabilities before 2011										2 924
Liabilities for claims and claim adjustment expenses, net of reinsurance										**5 423**

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)	*15.9%*	*26.0%*	*13.5%*	*7.7%*	*4.7%*	*3.3%*	*2.3%*	*1.5%*	*1.0%*	*0.9%*

The increase in incurred losses from accident year 2015 onwards is due to an increase in the volume of workers' compensation written on a proportional basis with the current year impacted by COVID-19. The 2010 and prior accident years include the run-off of business written by entities acquired as part of the acquisition of General Electric Insurance Solutions during 2006. This business, which generally had a longer payment pattern, was not renewed.

Property & Casualty Reinsurance – Motor, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	thereof IBNR
2011	1 048	1 042	1 012	967	968	967	966	956	960	963	–13
2012		1 573	1 562	1 545	1 532	1 521	1 520	1 517	1 516	1 520	24
2013			1 628	1 601	1 607	1 579	1 572	1 567	1 567	1 568	12
2014				2 085	2 045	2 044	2 026	2 015	2 013	2 011	–7
2015					1 983	1 979	1 982	1 986	1 986	1 994	15
2016						2 557	2 675	2 725	2 727	2 732	39
2017							2 438	2 455	2 441	2 453	136
2018								2 089	2 124	2 102	225
2019	RSI								2 090	2 066	416
2020										1 916	1 015
Total										**19 325**	**1 862**

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

USD millions	Reporting year									
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2011	277	702	893	927	947	957	965	968	971	971
2012		501	1 167	1 337	1 388	1 421	1 443	1 456	1 467	1 473
2013			599	1 225	1 415	1 462	1 494	1 510	1 520	1 529
2014				767	1 530	1 787	1 867	1 904	1 925	1 938
2015					823	1 486	1 736	1 840	1 886	1 912
2016						844	1 872	2 229	2 414	2 520
2017							776	1 560	1 901	2 078
2018								636	1 364	1 613
2019	RSI								674	1 320
2020										630
Total										**15 984**
All liabilities before 2011										340
Liabilities for claims and claim adjustment expenses, net of reinsurance										**3 681**

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

Years	1	2	3	4	5	6	7	8	9	10
Motor, proportional (RSI)	33.8%	37.2%	13.4%	4.7%	2.4%	1.2%	0.7%	0.5%	0.4%	0.0%

The increase in the incurred losses from accident years 2012 to 2016 is driven by new business volume across all regions, with the current accident year impacted by COVID-19. Proportional motor business includes both longer-tailed liability business and shorter-tailed hull business.

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

Property & Casualty Reinsurance – Motor, non-proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**thereof IBNR**
2011	*430*	*471*	*450*	*447*	*432*	*425*	*413*	*441*	*434*	430	99
2012		*350*	*367*	*345*	*329*	*330*	*311*	*320*	*315*	318	60
2013			*456*	*479*	*481*	*462*	*448*	*454*	*453*	459	68
2014				*428*	*461*	*457*	*456*	*449*	*426*	423	66
2015					*404*	*426*	*463*	*458*	*470*	468	83
2016						*488*	*609*	*571*	*564*	550	123
2017							*605*	*636*	*623*	629	177
2018								*510*	*553*	560	212
2019	*RSI*								*1 231*	1 243	330
2020										536	444
Total										**5 616**	**1 662**

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

USD millions	Reporting year									
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	*-11*	*21*	*58*	*82*	*107*	*122*	*138*	*150*	*157*	179
2012		*2*	*25*	*50*	*86*	*113*	*139*	*161*	*173*	181
2013			*7*	*90*	*156*	*202*	*229*	*256*	*273*	288
2014				*4*	*63*	*108*	*148*	*193*	*223*	243
2015					*–1*	*34*	*94*	*160*	*206*	236
2016						*9*	*67*	*129*	*184*	244
2017							*9*	*60*	*128*	205
2018								*4*	*36*	97
2019	*RSI*								*93*	310
2020										3
Total										**1 986**
All liabilities before 2011										2 876
Liabilities for claims and claim adjustment expenses, net of reinsurance										**6 506**

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)	*1.2%*	*10.7%*	*10.9%*	*10.4%*	*8.6%*	*6.2%*	*4.8%*	*3.3%*	*2.1%*	*5.1%*

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

For accident year 2011, negative claims paid in the first year are due to the commutation of an external retrocession on acquired retroactive business. The increase in incurred losses for accident year 2019 compared to other years is due to an increase in volume of business written, with the current accident year impacted by COVID-19.

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

Property & Casualty Reinsurance – Specialty

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	thereof IBNR
2011	1 327	1 316	1 226	1 139	1 184	1 178	1 193	1 177	1 175	1 175	2
2012		977	1 036	1 056	1 036	1 034	1 021	1 018	1 014	1 006	7
2013			1 131	1 054	1 011	974	963	941	929	932	22
2014				1 138	1 124	1 022	995	980	984	966	32
2015					1 278	1 252	1 235	1 225	1 224	1 246	47
2016						1 317	1 305	1 255	1 255	1 238	91
2017							1 643	1 565	1 434	1 400	125
2018								1 685	1 777	1 744	467
2019	RSI								1 785	1 950	662
2020										1 867	1 161
Total										**13 524**	**2 616**

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

USD millions	Reporting year									
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2011	170	577	799	904	956	991	1 056	1 078	1 095	1 104
2012		132	458	698	791	848	891	926	945	952
2013			154	432	621	734	789	826	850	863
2014				181	422	607	706	764	802	826
2015					139	400	711	876	980	1 036
2016						146	491	740	909	1 000
2017							186	592	879	1 046
2018								189	663	984
2019	RSI								284	716
2020										307
Total										**8 834**
All liabilities before 2011										625
Liabilities for claims and claim adjustment expenses, net of reinsurance										**5 315**

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

Years	1	2	3	4	5	6	7	8	9	10
Specialty (RSI)	14.1%	27.7%	20.8%	11.3%	6.3%	3.9%	3.5%	1.7%	1.1%	0.8%

This category contains several individual large losses on marine, aviation and space lines, including the Costa Concordia event in accident year 2012. From 2017 to 2020 accident years, claims incurred is higher due to natural catastrophes, with the current accident year impacted by COVID-19. Accident year 2019 has increased this year due to aviation and engineering but is partially offset by marine decreases.

Life & Health Reinsurance, long tail

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year											
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**thereof IBNR**	**Cumulative number of reported claims (in nominals)**
2011	*229*	*240*	*303*	*316*	*331*	*308*	*301*	*302*	*309*	308	28	6 945
2012		*284*	*380*	*383*	*409*	*371*	*374*	*370*	*386*	387	26	9 525
2013			*512*	*503*	*501*	*463*	*462*	*464*	*489*	489	29	12 168
2014				*502*	*457*	*435*	*437*	*461*	*486*	495	38	14 227
2015					*428*	*463*	*448*	*449*	*481*	491	40	17 140
2016						*449*	*465*	*451*	*483*	498	87	14 667
2017							*458*	*465*	*488*	512	124	17 303
2018								*426*	*461*	477	164	16 491
2019	*RSI*								*396*	484	217	12 806
2020										184	158	2 295
Total										**4 325**	**911**	**123 567**

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

USD millions	Reporting year									
Accident year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	*20*	*65*	*105*	*132*	*153*	*175*	*191*	*206*	*217*	228
2012		*29*	*92*	*147*	*188*	*222*	*246*	*266*	*283*	298
2013			*39*	*128*	*195*	*259*	*302*	*330*	*353*	374
2014				*34*	*114*	*208*	*274*	*312*	*342*	369
2015					*38*	*112*	*198*	*251*	*291*	327
2016						*14*	*91*	*167*	*223*	268
2017							*13*	*79*	*171*	246
2018								*12*	*78*	171
2019	*RSI*								*13*	83
2020										5
Total										**2 369**
All liabilities before 2011										294
Liabilities for claims and claim adjustment expenses, net of reinsurance										**2 250**

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

Years	1	2	3	4	5	6	7	8	9	10
Life & Health Reinsurance, long tail (RSI)	*5.0%*	*15.2%*	*16.3%*	*11.8%*	*8.2%*	*6.5%*	*5.1%*	*4.5%*	*3.7%*	*3.6%*

The increase in incurred losses from accident year 2013 onwards is due to an increase in volume of group disability business in Australia. Disability business volume written in Australia has reduced since 2019.

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 include 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.

For details on consolidation please refer to Note 2 "Information on business segments".

As of 31 December

USD millions	2020
Net outstanding liabilities	
Property & Casualty Reinsurance	
Property	10 032
Liability, proportional	11 876
Liability, non-proportional	9 692
Accident & Health	5 423
Motor, proportional	3 681
Motor, non-proportional	6 506
Specialty	5 315
Life & Health Reinsurance, long tail	2 250
Total net undiscounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	54 775
Discounting impact on (Life & Health Reinsurance) short duration contracts	–311
Impact of acquisition accounting	–355
Total net discounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	54 109
Other short duration contract lines	3 180
Total net discounted outstanding short duration liabilities	**57 289**
Allocated reinsurance recoverables on unpaid claims:	
Property & Casualty Reinsurance	
Property	572
Liability, proportional	245
Liability, non-proportional	239
Accident & Health	238
Motor, proportional	52
Motor, non-proportional	220
Specialty	506
Impact of acquisition accounting	–71
Other short duration contract lines	50
Total short duration reinsurance recoverable on outstanding liabilities	**2 051**
Exclusions:	
Unallocated claim adjustment expenses	754
Long duration contracts	11 825
Total other reconciling items	**12 579**
Total unpaid claims and claim adjustment expenses	**71 919**

Discounting information

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

USD millions	2019	**2020**
Carrying amount of discounted claims	1 318	1 374
Aggregate amount of the discount	–305	–311
Interest accretion[1]	28	29
Range of interest rates	3.0% –3.4%	3.0% –3.2%

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

Please refer to Note 1 "Organisation and summary of significant accounting policies" for more details about the Group's discounting approach for unpaid claims and claim adjustment expenses.

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

As of 31 December, the DAC were as follows:

2019 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Opening balance as of 1 January	2 156	4 784	49	6 989
Deferred	5 269	434	139	5 842
Effect of acquisitions/disposals and retrocessions		–256	68	–188
Amortisation	–4 809	–445	–50	–5 304
Effect of foreign currency translation and other changes	–3	12	–1	8
Closing balance	2 613	4 529	205	7 347

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Other	Total
Opening balance as of 1 January	2 613	4 529	205	7 347
Deferred	5 016	619	381	6 016
Effect of acquisitions/disposals and retrocessions		–2	2	0
Amortisation	–5 103	–417	–124	–5 644
Effect of foreign currency translation and other changes	50	171	50	271
Closing balance	**2 576**	**4 900**	**514**	**7 990**

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:

			2019			**2020**
USD millions	Life & Health Reinsurance	Other	Total	Life & Health Reinsurance	Other	Total
Opening balance as of 1 January	804	566	1 370	577	520	1 097
Effect of acquisitions/disposals and retrocessions[1]	–161	–1	–162		–2	–2
Amortisation	–108	–73	–181	–99	–74	–173
Interest accrued on unamortised PVFP	32	41	73	28	37	65
Effect of change in unrealised gains/losses		–13	–13		–8	–8
Effect of foreign currency translation	10		10	4		4
Closing balance	577	520	1 097	**510**	**473**	**983**

[1] Impact from termination of a reinsurance arrangement included.

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 15%, 14%, 13%, 13% and 11%.

7 Investments

Investment income

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

USD millions	2019[1]	2020
Fixed income securities	2 083	1 771
Equity securities	53	33
Policy loans, mortgages and other loans	84	81
Investment real estate	226	241
Short-term investments	76	33
Other current investments	89	82
Share in earnings of equity-accounted investees	51	43
Cash and cash equivalents	59	20
Net result from deposit-accounted contracts	39	78
Deposits with ceding companies	455	429
Gross investment income	3 215	**2 811**
Investment expenses	–317	–306
Interest charged for funds held	–5	–4
Net investment income – non-participating business	2 893	**2 501**

[1] The Group revised its allocation of net investment income. The revision has no impact on the income statement or balance sheet of the Group. Comparative information for 2019 has been adjusted accordingly.

Dividends received from investments accounted for using the equity method were USD 63 million and USD 79 million for 2019 and 2020, respectively.

Share in earnings of equity-accounted investees included impairments of the carrying amount of equity-accounted investees of USD 19 million and USD 5 million for 2019 and 2020, respectively.

Realised gains and losses

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

USD millions	2019	2020
Fixed income securities available-for-sale:		
Gross realised gains	1 280	1 400
Gross realised losses	–139	–241
Other-than-temporary impairments	–2	–25
Net realised investment gains/losses on equity securities	171	–33
Change in net unrealised investment gains/losses on equity securities	397	622
Net realised investment gains/losses on trading securities	153	84
Change in net unrealised investment gains/losses on trading securities	–26	–33
Net realised/unrealised gains/losses on other investments	–194	–330
Net realised/unrealised gains/losses on insurance-related activities	89	47
Foreign exchange gains/losses	–212	–44
Net realised investment gains/losses – non-participating business	1 517	**1 447**

Net realised/unrealised gains/losses on insurance-related activities included impairments of USD 5 million and nil for 2019 and 2020, respectively.

Investment result – unit-linked business

The net investment result on unit-linked business credited to policyholders amounted to gains of USD 118 million and to losses of USD 32 million for 2019 and 2020, respectively, originating from equity securities.

Impairment on fixed income securities related to credit losses

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

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

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

USD millions	2019	**2020**
Balance as of 1 January	77	59
Credit losses for which an other-than-temporary impairment was not previously recognised	5	16
Reductions for securities sold during the period	–23	–29
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	2	
Impact of increase in cash flows expected to be collected	–3	–2
Impact of foreign exchange movements	1	2
Balance as of 31 December	59	**46**

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:

2019 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	11 660	253	–35		11 878
US Agency securitised products	6 693	96	–13		6 776
States of the United States and political subdivisions of the states	1 395	146	–3		1 538
United Kingdom	4 114	576	–26		4 664
Germany	2 716	285	–34		2 967
France	1 860	287	–12		2 135
Japan	2 025	98	–1		2 122
Canada	1 786	137	–3		1 920
Other	9 495	495	–31		9 959
Total	41 744	2 373	–158		43 959
Corporate debt securities	22 767	1 686	–19		24 434
Mortgage- and asset-backed securities	3 764	107	–15	–2	3 854
Fixed income securities available-for-sale	68 275	4 166	–192	–2	72 247

2020 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	8 713	506	–15		9 204
US Agency securitised products	5 950	200	–10		6 140
States of the United States and political subdivisions of the states	1 175	227			1 402
United Kingdom	4 239	804	–5		5 038
Germany	2 922	476	–1		3 397
France	2 440	548	–1		2 987
Japan	2 086	56	–24		2 118
Canada	1 742	215	–12		1 945
Other	9 623	754	–19		10 358
Total	38 890	3 786	–87		42 589
Corporate debt securities	25 585	2 870	–34		28 421
Mortgage- and asset-backed securities	2 965	152	–25	–1	3 091
Fixed income securities available-for-sale	**67 440**	**6 808**	**–146**	**–1**	**74 101**

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.

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 2019 and 2020.

2019 USD millions	Less than 12 months Fair value	Less than 12 months Unrealised losses	12 months or more Fair value	12 months or more Unrealised losses	Total Fair value	Total Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	1 898	35	86	0	1 984	35
US Agency securitised products	1 790	7	651	6	2 441	13
States of the United States and political subdivisions of the states	39	1	23	2	62	3
United Kingdom	1 297	22	83	4	1 380	26
Germany	663	33	10	1	673	34
France	331	11	16	1	347	12
Japan	443	1			443	1
Canada	653	2	62	1	715	3
Other	1 313	16	276	15	1 589	31
Total	8 427	128	1 207	30	9 634	158
Corporate debt securities	1 465	10	224	9	1 689	19
Mortgage- and asset-backed securities	675	5	447	12	1 122	17
Total	10 567	143	1 878	51	12 445	194

2020 USD millions	Less than 12 months Fair value	Less than 12 months Unrealised losses	12 months or more Fair value	12 months or more Unrealised losses	Total Fair value	Total Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	1 112	15			1 112	15
US Agency securitised products	348	10	9	0	357	10
States of the United States and political subdivisions of the states	8	0			8	0
United Kingdom	227	5			227	5
Germany	13	0	26	1	39	1
France	29	0	28	1	57	1
Japan	841	24			841	24
Canada	47	7	66	5	113	12
Other	1 500	11	99	8	1 599	19
Total	4 125	72	228	15	4 353	87
Corporate debt securities	1 031	30	144	4	1 175	34
Mortgage- and asset-backed securities	347	7	189	19	536	26
Total	**5 503**	**109**	**561**	**38**	**6 064**	**147**

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 2019 and 2020, USD 17 190 million and USD 18 595 million, respectively, of fixed income securities available-for-sale were callable.

USD millions	2019 Amortised cost or cost	2019 Estimated fair value	2020 Amortised cost or cost	2020 Estimated fair value
Due in one year or less	5 451	5 474	7 550	7 592
Due after one year through five years	22 417	22 770	16 005	16 650
Due after five years through ten years	10 479	11 093	13 049	14 065
Due after ten years	26 800	29 684	28 709	33 533
Mortgage- and asset-backed securities with no fixed maturity	3 128	3 226	2 127	2 261
Total fixed income securities available-for-sale	68 275	72 247	**67 440**	**74 101**

Investments trading and at fair value through earnings

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

USD millions	2019	2020
Debt securities issued by governments and government agencies	2 358	1 907
Mortgage- and asset-backed securities	52	31
Fixed income securities trading – non-participating business	2 410	**1 938**
Equity securities at fair value through earnings – non-participating business	2 373	**3 010**

Investments held for unit-linked business

As of 31 December 2019 and 2020, the carrying amounts of investments held for unit-linked business consist of equity securities at fair value through earnings of USD 520 million and of USD 463 million.

Mortgage, policy and other loans and investment real estate

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

USD millions	2019 Carrying value	2019 Fair value	2020 Carrying value	2020 Fair value
Policy loans	45	45	43	43
Mortgage loans	1 014	1 045	982	1 030
Other loans	1 319	1 350	2 133	2 177
Investment real estate	2 526	4 557	2 601	5 116

Depreciation expense related to investment real estate was USD 61 million and USD 67 million for 2019 and 2020, respectively. Accumulated depreciation on investment real estate totalled USD 660 million and USD 779 million as of 31 December 2019 and 2020, respectively.

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

Investment real estate held by the Group includes residential and commercial investment real estate.

Maturity of lessor cash flows

As of 31 December 2020, the total undiscounted cash flows to be received from operating leases of investment real estate for the next five years and thereafter were as follows:

USD millions	Operating leases
Less than one year	203
Between one year and two years	182
Between two years and three years	158
Between three years and four years	125
Between four years and five years	97
After five years	412
Total cash flows	1 177

The Group manages risk associated with the residual value of its leased properties through careful property selection as well as diversification by geographical region and property type. Lease contracts for residential real estate in Switzerland and Germany are usually open-ended. Cash flows for such contracts have been projected taking into consideration the average turnover rate in the region. Lease contracts for residential real estate in the US with a lease term of one year or less have been excluded from the projected cash flows in the table above. Rental income for those leases for the year ended 31 December 2019 and 2020 was USD 28 million and USD 27 million.

Other financial assets and liabilities by measurement category

As of 31 December 2019 and 2020, "Other invested assets" and "Accrued expenses and other liabilities" by measurement category were as follows:

2019 USD millions	Fair value	Investments measured at net asset value as practical expedient	Amortised cost or cost	Equity-accounted	Not in scope[1]	Total
Other invested assets						
Derivative financial instruments	552					552
Reverse repurchase agreements			2 062			2 062
Securities lending/borrowing	457		21			478
Equity-accounted investments	20			1 496		1 516
Other	51	699	550			1 300
Other invested assets	1 080	699	2 633	1 496	0	5 908
Accrued expenses and other liabilities						
Derivative financial instruments	642					642
Repurchase agreements			678			678
Securities lending	458		115			573
Securities sold short	1 764					1 764
Other			1 202		2 841	4 043
Accrued expenses and other liabilities	2 864	0	1 995	0	2 841	7 700

2020 USD millions	Fair value	Investments measured at net asset value as practical expedient	Amortised cost or cost	Equity-accounted	Not in scope[1]	Total
Other invested assets						
Derivative financial instruments	416					416
Reverse repurchase agreements			2 981			2 981
Securities lending/borrowing	1 636		282			1 918
Equity-accounted investments	120			1 934		2 054
Other	292	840	1 115			2 247
Other invested assets	**2 464**	**840**	**4 378**	**1 934**	**0**	**9 616**
Accrued expenses and other liabilities						
Derivative financial instruments	688					688
Repurchase agreements			248			248
Securities lending	1 638		183			1 821
Securities sold short	1 255					1 255
Other			1 715		5 284	6 999
Accrued expenses and other liabilities	**3 581**	**0**	**2 146**	**0**	**5 284**	**11 011**

[1] Amounts do not relate to financial assets or liabilities.

Offsetting of derivatives, financial assets and financial liabilities

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

2019 USD millions	Gross amounts of recognised financial assets	Amounts set-off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – assets	1 736	–1 184	552	–32	520
Reverse repurchase agreements	5 158	–3 096	2 062	–2 035	27
Securities borrowing	171	–150	21	–20	1
Total	7 065	–4 430	2 635	–2 087	548

2019 USD millions	Gross amounts of recognised financial liabilities	Amounts set-off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – liabilities	–1 700	1 058	–642	75	–567
Repurchase agreements	–3 352	2 674	–678	653	–25
Securities lending	–1 145	572	–573	524	–49
Total	–6 197	4 304	–1 893	1 252	–641

2020 USD millions	Gross amounts of recognised financial assets	Amounts set-off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – assets	1 759	–1 343	416	–40	**376**
Reverse repurchase agreements	4 924	–1 943	2 981	–2 981	**0**
Securities borrowing	292	–10	282	–280	**2**
Total	**6 975**	**–3 296**	**3 679**	**–3 301**	**378**

2020 USD millions	Gross amounts of recognised financial liabilities	Amounts set-off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – liabilities	–1 968	1 280	–688	302	**–386**
Repurchase agreements	–1 891	1 643	–248	248	**0**
Securities lending	–2 131	310	–1 821	1 652	**–169**
Total	**–5 990**	**3 233**	**–2 757**	**2 202**	**–555**

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 the 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".

Assets pledged

As of 31 December 2019 and 2020, investments with a carrying value of USD 4 182 million and USD 4 637 million, respectively, were on deposit with regulatory agencies in accordance with local requirements, of which USD 190 million and USD 154 million, respectively, were cash and cash equivalents. As of 31 December 2019 and 2020, investments with a carrying value of USD 13 348 million and USD 14 031 million, respectively, were placed on deposit or pledged to secure certain reinsurance liabilities, including pledged investments in subsidiaries, of which USD 192 million and USD 188 million, respectively, were cash and cash equivalents. Cash and cash equivalents pledged include some instances where cash is legally restricted from usage or withdrawal.

As of 31 December 2019 and 2020, securities of USD 17 306 million and USD 12 290 million, respectively, were transferred to third parties under securities lending transactions and repurchase agreements on a fully collateralised basis. Corresponding liabilities of USD 1 251 million and USD 2 069 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 reuse.

As of 31 December 2019 and 2020, a real estate portfolio with a carrying value of USD 188 million and USD 200 million, respectively, served as collateral for a credit facility, allowing the Group to withdraw funds up to CHF 500 million.

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

As of 31 December 2019 and 2020, the fair value of the equity securities, government and corporate debt securities received as collateral was USD 6 754 million and USD 6 308 million, respectively. Of this, the amount that was sold or repledged as of 31 December 2019 and 2020 was USD 3 302 million and USD 2 714 million, respectively. The sources of the collateral are securities borrowing, reverse repurchase agreements and derivative transactions.

Recognised gross liability for the obligation to return collateral (from repurchase agreements and securities lending)

As of 31 December 2019 and 2020, 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.

	Remaining contractual maturity of the agreements				
2019 USD millions	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	Total
Repurchase agreements					
Debt securities issued by governments and government agencies	30	3 312			3 342
Corporate debt securities	3	7			10
Total repurchase agreements	33	3 319	0	0	3 352
Securities lending					
Debt securities issued by governments and government agencies	295		493	299	1 087
Corporate debt securities	58				58
Total securities lending	353	0	493	299	1 145
Gross amount of recognised liabilities for repurchase agreements and securities lending					4 497

	Remaining contractual maturity of the agreements				
2020 USD millions	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	Total
Repurchase agreements					
Debt securities issued by governments and government agencies	197	1 490	54		1 741
Corporate debt securities	2	148			150
Total repurchase agreements	**199**	**1 638**	**54**	**0**	**1 891**
Securities lending					
Debt securities issued by governments and government agencies	1 099		303	551	1 953
Corporate debt securities	79				79
Equity securities	99				99
Total securities lending	**1 277**	**0**	**303**	**551**	**2 131**
Gross amount of recognised liabilities for repurchase agreements and securities lending					**4 022**

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.

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 unadjusted, 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. The types of instruments include most US government and sovereign obligations, active listed equities, certain exchange-traded derivative instruments and most money market securities.

Level 2 inputs are market-based inputs that are directly or indirectly observable, but not considered level 1 quoted prices. Level 2 inputs consist of (i) quoted prices for similar assets or liabilities in active markets; (ii) quoted prices for identical assets or liabilities in non-active markets (eg markets which have few transactions and where prices are not current or price quotations vary substantially); (iii) inputs other than quoted prices that are observable (eg interest rates, yield curves, volatilities, prepayment speeds, credit risks and default rates); (iv) inputs derived from, or corroborated by, observable market data; and (v) quoted prices provided by third party brokers. The types of instruments that trade in markets that are not considered to be active include most government agency securities, investment-grade corporate bonds, certain mortgage- and asset-backed products, certain exchange-traded derivative instruments, catastrophe bonds, less liquid listed equities and state, municipal and provincial obligations.

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. 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 (ABS). 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. 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.

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 2020, these adjustments were not material. Whenever the underlying assets or liabilities are reported in a specific business segment, the valuation adjustment is allocated accordingly. Valuation adjustments not attributable to any business segment are reported in Other.

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

Valuation techniques

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

Corporate debt securities mainly include US and European investment-grade positions, which are priced on the basis of quotes provided by third party pricing vendors and first utilise valuation inputs from actively traded securities, such as bid prices, bid spreads to Treasury securities, Treasury curves and same or comparable issuer curves and spreads. Issuer spreads are determined from actual quotes and traded prices and incorporate considerations of credit/default, sector composition, and liquidity and call features. Where market data is not available, valuations are developed based on the modelling techniques that utilise observable inputs and option-adjusted spreads and incorporate considerations of the security's seniority and 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 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, credit and equity derivative contracts for hedging and trading purposes. The fair values of exchange-traded derivatives measured using observable exchange prices are classified in level 1. Long-dated contracts may require adjustments to the exchange-traded prices which would trigger reclassification to level 2 in the fair value hierarchy. OTC derivatives are generally valued by the Group based on the internal models, which are consistent with industry standards and practices, and use both observable (dealer, broker or market consensus prices, spot and forward rates, interest rate and credit curves and volatility indices) and unobservable inputs (adjustments for liquidity, inputs derived from the observable data based on the Group's judgements and assumptions).

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

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

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

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

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:

2019 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	11 518	62 344	795		74 657
Debt securities issued by US government and government agencies	11 518	1 978			13 496
US Agency securitised products		6 827			6 827
Debt securities issued by non-US governments and government agencies		25 994			25 994
Corporate debt securities		23 639	795		24 434
Mortgage- and asset-backed securities		3 906			3 906
Equity securities held for proprietary investment purposes	2 373				2 373
Equity securities backing unit-linked business	520				520
Short-term investments held for proprietary investment purposes	958	4 112			5 070
Derivative financial instruments	2	1 488	246	–1 184	552
Interest rate contracts		484			484
Foreign exchange contracts		369			369
Equity contracts	2	609	186		797
Credit contracts		23			23
Other contracts		3	60		63
Other invested assets	317	140	71		528
Funds held by ceding companies		174			174
Total assets at fair value	15 688	68 258	1 112	–1 184	83 874
Liabilities					
Derivative financial instruments	–4	–1 410	–286	1 058	–642
Interest rate contracts		–363	–2		–365
Foreign exchange contracts		–396			–396
Equity contracts	–4	–586	–20		–610
Credit contracts		–65			–65
Other contracts			–264		–264
Liabilities for life and health policy benefits			–91		–91
Accrued expenses and other liabilities	–340	–1 882			–2 222
Total liabilities at fair value	–344	–3 292	–377	1 058	–2 955

[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.

2020 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	8 880	65 976	1 183		76 039
Debt securities issued by US government and government agencies	8 880	1 901			10 781
US Agency securitised products		6 381			6 381
Debt securities issued by non-US governments and government agencies		27 334			27 334
Corporate debt securities		27 238	1 183		28 421
Mortgage- and asset-backed securities		3 122			3 122
Equity securities held for proprietary investment purposes	3 010				3 010
Equity securities backing unit-linked business	463				463
Short-term investments held for proprietary investment purposes	5 607	8 158			13 765
Derivative financial instruments	4	1 511	244	–1 343	416
Interest rate contracts		495			495
Foreign exchange contracts		273			273
Equity contracts	4	713	201		918
Credit contracts		30			30
Other contracts			43		43
Other invested assets	551	1 085	412		2 048
Funds held by ceding companies		172			172
Total assets at fair value	**18 515**	**76 902**	**1 839**	**–1 343**	**95 913**
Liabilities					
Derivative financial instruments	–10	–1 640	–318	1 280	–688
Interest rate contracts		–451	–1		–452
Foreign exchange contracts		–442			–442
Equity contracts	–10	–409	–23		–442
Credit contracts		–338			–338
Other contracts			–294		–294
Liabilities for life and health policy benefits			–97		–97
Accrued expenses and other liabilities	–794	–2 099			–2 893
Total liabilities at fair value	**–804**	**–3 739**	**–415**	**1 280**	**–3 678**

[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 reconciliations of the fair values of assets and liabilities measured on a recurring basis using significant unobservable inputs were as follows:

2019 USD millions	Fixed income securities	Derivative assets	Other invested assets	Total assets	Derivative liabilities	Liabilities for life and health policy benefits	Total liabilities
Assets and liabilities							
Balance as of 1 January	463	425	65	953	–297	–120	–417
Realised/unrealised gains/losses:							
Included in net income[1]		–144	5	–139	45	32	77
Included in other comprehensive income[2]	32			32		–3	–3
Purchases	379	34		413			0
Issuances				0	–65		–65
Sales	–55	–32		–87	26		26
Settlements	–20	–37		–57	5		5
Transfers into level 3			1	1			0
Transfers out of level 3	–6			–6			0
Impact of foreign exchange movements	2			2			0
Change in Group structure							0
Closing balance as of 31 December	795	246	71	1 112	–286	–91	–377

[1] Fair value changes are reported in "Net realised investment gains/losses – non-participating business".
[2] Fair value changes from fixed income securities are reported in "Net unrealised investment gains/losses". Fair value changes from liabilities for life and health policy benefits are reported in "Credit risk of financial liabilities at fair value option".

2020 USD millions	Fixed income securities	Derivative assets	Other invested assets	**Total assets**	Derivative liabilities	Liabilities for life and health policy benefits	**Total liabilities**
Assets and liabilities							
Balance as of 1 January	795	246	71	**1 112**	–286	–91	**–377**
Realised/unrealised gains/losses:							
Included in net income[1]	1	37	11	**49**	–28	–8	**–36**
Included in other comprehensive income[2]	58			**58**		2	**2**
Purchases	367	34		**401**			**0**
Issuances				**0**	–48		**–48**
Sales	–7	–5		**–12**	5		**5**
Settlements	–46	–71		**–117**	39		**39**
Transfers into level 3		3	213	**216**			**0**
Transfers out of level 3				**0**			**0**
Impact of foreign exchange movements	15		1	**16**			**0**
Change in Group structure			116	**116**			**0**
Closing balance as of 31 December	**1 183**	**244**	**412**	**1 839**	**–318**	**–97**	**–415**

[1] Fair value changes are reported in "Net realised investment gains/losses – non-participating business".
[2] Fair value changes from fixed income securities are reported in "Net unrealised investment gains/losses". Fair value changes from liabilities for life and health policy benefits are reported in "Credit risk of financial liabilities at fair value option".

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	2019	**2020**
Gains/losses included in net income for the period	–62	13
Whereof change in unrealised gains/losses relating to assets and liabilities still held at the reporting date	–87	–12

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	2019 Fair value	2020 Fair value	Valuation technique	Unobservable input	Range (weighted average[1])
Assets					
Corporate debt securities	795	**1 183**			
Infrastructure loans	566	701	Discounted cash flow model	Valuation spread	84–526 bps (199 bps)
Private placement corporate debt	186	440	Corporate spread matrix	Credit spread	214–236 bps (112 bps)
Private placement credit tenant leases	42	42	Discounted cash flow model	Illiquidity premium	125–150 bps (146 bps)
Derivative equity contracts	186	**201**			
OTC equity option referencing correlated equity indices	186	201	Proprietary option model	Correlation	–30–55% (30%)
Liabilities					
Derivative equity contracts	–20	**–23**			
OTC equity option referencing correlated equity indices	–20	–23	Proprietary option model	Correlation	–30–95% (42%)
Other derivative contracts and liabilities for life and health policy benefits	–355	**–391**			
Variable annuity and fair valued GMDB contracts	–311	–355	Discounted cash flow model	Risk margin	4% (n/a)
				Volatility	12.8–63.8%
				Lapse	1.5–15%
				Mortality improvement	0–1.5%
				Withdrawal rate	0–90%

[1] Unobservable inputs were weighted by the relative fair value of the instruments. For Derivative equity contracts, the weighted average correlation is derived by computing an absolute piecewise correlation impact and is not weighted by the relative fair value.

Uncertainty of recurring level 3 measurements from the use of significant unobservable inputs

The significant unobservable input used in the fair value measurement of the Group's infrastructure loans is valuation spread. A significant increase (decrease) in this input in isolation would have resulted in a significantly lower (higher) fair value measurement. The significant unobservable input used in the fair value measurement of the Group's private placement corporate debt securities is credit spread. A significant increase (decrease) in this input in isolation would have resulted 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 have resulted 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 have resulted 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 have resulted 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 improvement rate and withdrawal rate. A significant increase (decrease) in isolation in each of the following inputs: risk margin, volatility and withdrawal rate would have resulted in a significantly lower (higher) fair value of the Group's obligation. A significant increase (decrease) in isolation in lapse rate would, in general, have resulted in a significantly higher (lower) fair value of the Group's obligation due to the maturity of the contracts. Changes in the mortality improvement 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 improvement rate (ie decrease (increase) in mortality) in isolation would have resulted in a decrease (increase) in fair value of the Group's liability. For the latter, a significant increase (decrease) in the mortality improvement rate in isolation would have resulted 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	2019 Fair value	2020 Fair value	Unfunded commitments	Redemption frequency (if currently eligible)	Redemption notice period
Private equity funds	471	666	568	non-redeemable	n/a
Hedge funds	208	2		redeemable[1]	45–95 days[2]
Private equity direct	8	170	72	non-redeemable	n/a
Real estate funds	12	2	15	non-redeemable	n/a
Total	699	**840**	**655**		

[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 relative value and event-driven 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. The period of time over which the underlying assets are expected to be liquidated is indeterminate as investees provide liquidation notices.

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. The liability is carried at fair value and changes in fair value attributable to instrument-specific credit risk are reported in other comprehensive income and all other changes in fair value are reported as a component of earnings.

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

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

USD millions	2019	2020
Assets		
Other invested assets	5 908	9 616
of which at fair value pursuant to the fair value option	20	120
Funds held by ceding companies	9 818	11 307
of which at fair value pursuant to the fair value option	174	172
Liabilities		
Liabilities for life and health policy benefits	–18 665	–20 892
of which at fair value pursuant to the fair value option	–91	–97

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	2019	2020
Other invested assets	2	2
Funds held by ceding companies	11	6
Liabilities for life and health policy benefits	32	–8
Total	45	**0**

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

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

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

2019 USD millions	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Total
Assets			
Policy loans		45	45
Mortgage loans		1 045	1 045
Other loans		1 350	1 350
Investment real estate		4 557	4 557
Total assets	0	6 997	6 997
Liabilities			
Debt	−7 238	−6 225	−13 463
Total liabilities	−7 238	−6 225	−13 463

2020 USD millions	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Total
Assets			
Policy loans		43	43
Mortgage loans		1 030	1 030
Other loans		2 177	2 177
Investment real estate		5 116	5 116
Total assets	**0**	**8 366**	**8 366**
Liabilities			
Debt	−7 858	−7 602	−15 460
Total liabilities	**−7 858**	**−7 602**	**−15 460**

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

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

Debt positions, which are fair valued based on executable broker quotes or 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:

2019 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	23 087	483	–343	140
Foreign exchange contracts	31 330	285	–140	145
Equity contracts	15 672	797	–610	187
Credit contracts	3 593	23	–65	–42
Other contracts	9 191	63	–264	–201
Total	82 873	1 651	–1 422	229
Derivatives designated as hedging instruments				
Interest rate contracts	1 403	1	–22	–21
Foreign exchange contracts	16 117	84	–256	–172
Total	17 520	85	–278	–193
Total derivative financial instruments	100 393	1 736	–1 700	36
Amount offset				
Where a right of set-off exists		–675	675	
Due to cash collateral		–509	383	
Total net amount of derivative financial instruments		552	–642	–90

2020 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	21 315	485	–436	49
Foreign exchange contracts	32 743	230	–218	12
Equity contracts	25 526	918	–442	476
Credit contracts	15 151	30	–338	–308
Other contracts	9 360	43	–294	–251
Total	**104 095**	**1 706**	**–1 728**	**–22**
Derivatives designated as hedging instruments				
Interest rate contracts	5 885	10	–16	–6
Foreign exchange contracts	19 194	43	–224	–181
Total	**25 079**	**53**	**–240**	**–187**
Total derivative financial instruments	**129 174**	**1 759**	**–1 968**	**–209**
Amount offset				
Where a right of set-off exists		–653	653	
Due to cash collateral		–690	627	
Total net amount of derivative financial instruments		**416**	**–688**	**–272**

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 2019 and 2020.

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	2019[1]	2020
Derivatives not designated as hedging instruments		
Interest rate contracts	–88	29
Foreign exchange contracts	–135	853
Equity contracts	–125	–225
Credit contracts	–45	–108
Other contracts	35	10
Total gains/losses recognised in income	–358	**559**

[1] The Group has revised the scope of its non-hedging derivative activities. The revision had no impact on net income or shareholder's equity. Comparative information for 2019 has been adjusted accordingly.

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 2019 and 2020, the following hedging relationships were outstanding:

Fair value hedges

The Group enters into foreign exchange and interest rate swaps to reduce the exposure to foreign exchange and interest rate volatility for certain fixed income securities and its issued long-term debt positions. These derivative instruments are designated as hedging instruments in qualifying fair value hedges.

For the years ended 31 December, the gains and losses attributable to the hedged risks were as follows:

		2019		**2020**
USD millions	Net realised investment gains/losses — non-participating business	Interest expenses	Net realised investment gains/losses — non-participating business	Interest expenses
Total amounts of income and expense line items	1 517	–592	1 447	–519
Foreign exchange contracts				
Gains/losses on derivatives	32		–818	
Gains/losses on hedged items	–32		818	
Interest rate contracts				
Gains/losses on derivatives		–18		13
Gains/losses on hedged items		20		–15

As of 31 December, the carrying values of the hedged assets and liabilities, and the cumulative amounts of fair value hedging adjustments included therein, recognised in the balance sheet, were as follows:

		2019		**2020**
USD millions	Carrying value	Cumulative basis adjustment	Carrying value	Cumulative basis adjustment
Assets				
Fixed income securities available-for-sale	8 737		12 906	
Liabilities				
Long-term debt	–1 355	20	–2 064	4

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 2019 and 2020, the Group recorded an accumulated net unrealised foreign currency remeasurement gain of USD 1 039 million and USD 705 million respectively, in "Other comprehensive income - Foreign currency translation". 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 2019 and 2020 was approximately USD 1 061 million and USD 1 106 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 45 million and USD 52 million as of 31 December 2019 and 2020, respectively. For derivative financial instruments containing credit risk-related contingent features, the Group posted collateral of nil and USD 48 million as of 31 December 2019 and 2020, respectively. In the event of a reduction of the Group's credit rating to below investment grade, a fair value of USD 6 million additional collateral would have had to be posted as of 31 December 2020. The total equals the amount needed to settle the instruments immediately as of 31 December 2020.

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	2019	2020
Senior financial debt	2 230	1 782
Senior operational debt		153
Contingent capital instruments classified as financial debt	185	
Short-term debt	2 415	**1 935**
Senior financial debt	1 971	3 118
Senior operational debt	244	95
Subordinated financial debt	4 604	5 587
Subordinated operational debt	1 918	1 927
Long-term debt	8 737	**10 727**
Total carrying value	11 152	**12 662**
Total fair value	13 463	**15 460**

Maturity of long-term debt

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

USD millions	2019	2020
Due in 2021	152	
Due in 2022	804	1 969
Due in 2023	432	432
Due in 2024	1 250	1 775
Due in 2025	802	1 157
Due after 2025	5 297	5 394
Total carrying value	8 737	**10 727**

Senior long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Book value in USD millions
2022	Senior notes	2012	USD	250	2.88%	250
2022	Senior loans	2020	USD	500	3mLIBOR +0.65%	500
2022	Senior loans	2020	USD	613	3mLIBOR +0.68%	612
2024	EMTN	2014	CHF	250	1.00%	282
2026	Senior notes[1]	1996	USD	397	7.00%	453
2027	EMTN	2015	CHF	250	0.75%	284
2030	Senior notes[1]	2000	USD	193	7.75%	246
2042	Senior notes	2012	USD	500	4.25%	491
Various	Payment undertaking agreements	various	USD	85	various	95
Total senior long-term debt as of 31 December 2020						**3 213**
Total senior long-term debt as of 31 December 2019						2 215

[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
2035	Subordinated fixed rate resettable callable loan	2020	SGD	350	3.13%	2025	263
2042	Subordinated fixed-to-floating rate callable loan note	2012	EUR	500	6.63%	2022	606
2043	Subordinated fixed-to-floating rate callable loan	2018	USD	430	5.75%	2023	430
2044	Subordinated fixed rate resettable callable loan note	2014	USD	500	4.50%	2024	498
2049	Subordinated fixed rate reset step-up callable loan note	2019	USD	1 000	5.00%	2029	992
2050	Subordinated fixed rate reset step-up callable loan note	2019	EUR	750	2.53%	2030	913
2057	Subordinated private placement (amortising, limited recourse)	2007	GBP	1 409	6.16%		1 927
Perpetual	Subordinated fixed spread callable note	2019	USD	1 000	4.25%	2024	993
Perpetual	Perpetual subordinated fixed-to-floating rate callable loan note	2015	EUR	750	2.60%	2025	892
Total subordinated long-term debt as of 31 December 2020							**7 514**
Total subordinated long-term debt as of 31 December 2019							6 522

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	2019	2020
Senior financial debt	74	78
Senior operational debt	10	7
Subordinated financial debt[1]	158	214
Subordinated operational debt	111	112
Contingent capital instruments classified as financial debt	5	
Total	358	**411**

[1] The Group has revised the presentation of interest expense on subordinated financial debt to exclude the change in fair value of the hedged long-term debt positions in addition to the change in fair value of the swap. The change has no impact on total interest expenses as shown in the income statement. Comparative information for 2019 has been amended accordingly.

The Group hedges the interest rate risk on some of its long-term debt positions. The net impact of the change in the fair value of the debt and interest rate swap is reflected in the interest expense line in the income statement but not in the table above. For more details on the hedging, please refer to Note 9 "Derivative financial instruments".

Long-term debt issued in 2020

In June 2020, Swiss Re Ltd extended an existing credit facility with Swiss Reinsurance Company Ltd for another 2 years until 23 June 2022. The USD 500 million loan drawdown has a floating interest rate.

In July 2020, Swiss Re Finance (UK) Plc issued 15-year guaranteed subordinated fixed rate reset callable notes with a face value of SGD 350 million. Swiss Re Finance (UK) Plc on-lent the issuance proceeds to Swiss Reinsurance Company Ltd under a loan agreement at the same terms as the external issuance.

In November 2020, Swiss Re Reinsurance Holding Ltd, a subsidiary of the Group, acquired Swiss Re Life Capital Reinsurance Ltd from Swiss Re Life Capital Ltd, a Swiss Re entity outside of the Group and renamed the entity Swiss Re Nexus Reinsurance Company Ltd. Swiss Re Reinsurance Holding funded the acquisition with a 2-year loan of USD 613 million and a floating interest rate from Swiss Re Life Capital Ltd.

11 Leases

As part of its normal business operations, the Group as a lessee enters into a number of lease agreements mainly for office space. Certain lease agreements include rental payments adjusted periodically for inflation. Renewal or termination options that are reasonably certain of exercise by the lessee are included in the lease term. The lease agreements do not contain any material residual value guarantees or material restrictive covenants.

Lease liabilities and right-of-use assets

Lease liabilities and right-of-use assets for operating leases as of 31 December were as follows:

USD millions	2019	**2020**
Operating lease right-of-use assets	250	268
Operating lease liabilities	275	294

Operating lease right-of-use assets are included in "Other assets" and operating lease liabilities are included in "Accrued expenses and other liabilities" on the balance sheet.

Maturity of lease liabilities

As of 31 December, the total undiscounted cash flows due to operating leases for the next five years and thereafter were as follows:

USD millions	**2019**	**2020**
Less than one year	37	43
Between one year and two years	37	42
Between two years and three years	34	40
Between three years and four years	31	33
Between four years and five years	26	27
After five years	138	149
Total undiscounted cash flows	303	**334**
Less imputed interest	–28	–40
Total lease liability	275	**294**

As of 31 December 2020, undiscounted sublease cash flows over the next eleven years were USD 39 million.

The discount rates used to determine the lease liability reflect the collateralised borrowing rates for the Group, where the underlying collateral is assumed to be real estate.

The weighted average discount rate for operating leases as of 31 December 2019 and 2020 was 2.0% and 2.1%, respectively. The weighted average remaining lease term for operating leases as of 31 December 2019 and 2020 was 9.8 years and 10.6 years, respectively.

Lease cost

The composition of total lease cost for all operating leases for the year ended 31 December was as follows:

USD millions	2019	**2020**
Fixed operating lease cost	36	39
Other lease cost[1]	2	3
Total operating lease cost	38	**42**
Less sublease income from operating leases	–4	–7
Total lease cost	34	**35**

[1] "Other lease cost" includes variable lease cost.

Other information

For the year ended 31 December 2019 and 2020, cash paid for amounts included in the measurement of operating lease liabilities was USD 36 million and USD 42 million, respectively. Right-of-use assets obtained in exchange for new operating lease liabilities in 2019 and 2020 were USD 47 million and USD 29 million, respectively.

12 Income taxes

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

USD millions	2019	2020
Current taxes	321	296
Deferred taxes	–157	–332
Income tax expense/benefit	164	**–36**

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	2019	2020
Income tax at the Swiss statutory tax rate of 21.0%	258	–93
Increase (decrease) in the income tax charge resulting from:		
Foreign income taxed at different rates	79	–4
Impact of foreign exchange movements	22	276
Tax exempt income/dividends received deduction	–93	–178
Non-deductible expenses	41	29
Change in valuation allowance	–35	–70
Basis difference in subsidiaries	–18	–18
Intra-entity transfers	24	89
Change in liability for unrecognised tax benefits including interest and penalties	–55	–4
Other, net[1]	–59	–63
Total	164	**–36**

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

For the year ended 31 December 2020, the Group reported a tax benefit of USD 36 million on a pre-tax loss of USD 442 million, compared to a charge of USD 164 million on a pre-tax income of USD 1 229 million for 2019. This translates into an effective tax rate in the current and prior-year reporting periods of 8.1% and 13.3%, respectively.

For the year ended 31 December 2020, the tax rate was largely driven by tax benefits on losses, tax-exempt income and the release of valuation allowance on deferred tax assets, partially offset by tax charges from intra-entity transfer and foreign currency translation differences between statutory and US GAAP accounts. The tax rate in the year ended 31 December 2019 was largely driven by tax benefits from tax-exempt income, effective settlement of tax audits and the release of valuation allowance on net operating losses, partially offset by the impact of different rates in various jurisdictions.

Deferred and other non-current taxes

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

USD millions	2019	2020
Deferred tax assets		
Income accrued/deferred	174	274
Technical provisions	490	732
Unearned premium reserves	243	252
Pension provisions	280	292
Benefit on loss carryforwards	1 680	2 162
Currency translation adjustments	275	477
Unrealised gains in income	166	231
Investment valuations in income	178	143
Other	538	647
Gross deferred tax asset	4 024	5 210
Valuation allowance	–118	–78
Unrecognised tax benefits offsetting benefits on loss carryforwards	3	2
Total deferred tax assets	3 909	**5 134**
Deferred tax liabilities		
Investment valuation in income	–219	–189
Deferred acquisition costs	–969	–1 013
Technical provisions	–1 624	–1 783
Unrealised gains on investments	–863	–1 395
Foreign exchange provisions	–440	–733
Currency translation adjustments	–105	–212
Other	–718	–788
Total deferred tax liabilities	–4 938	**–6 113**
Liability for unrecognised tax benefits including interest and penalties	–191	–173
Total deferred and other non-current tax liabilities	–5 129	**–6 286**

As of 31 December 2020, 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 3.1 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 2020, the Group had USD 10 485 million net operating tax loss carryforwards, expiring as follows: USD 2 million in 2021, USD 5 488 million in 2025 and beyond and USD 4 995 million never expire.

As of 31 December 2020, the Group also had capital loss carryforwards of USD 140 million that never expire.

For the year ended 31 December 2020, net operating tax losses of USD 1 075 million and net capital tax losses of nil were utilised.

Income taxes paid in 2019 and 2020 were USD 424 million and USD 247 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	2019	2020
Balance as of 1 January	215	145
Additions based on tax positions related to current year	27	11
Additions based on tax positions related to prior years	1	11
Reductions for tax positions of current year	–6	–3
Reductions for tax positions of prior years	–77	–16
Statute expiration	–2	–3
Settlements	–12	–17
Other (including foreign currency translation)	–1	7
Balance as of 31 December	145	**135**

As of 31 December 2019 and 2020, the amount of gross unrecognised tax benefits within the tabular reconciliation that, if recognised, would affect the effective tax rate were approximately USD 145 million and USD 135 million, respectively.

Interest and penalties related to unrecognised tax benefits are recorded in income tax expense. For the year ended 31 December 2019 such expenses were USD 1 million and for the year ended 31 December 2020 such benefits were USD 7 million. As of 31 December 2019 and 2020, USD 45 million and USD 36 million, respectively, were accrued for the payment of interest (net of tax benefits) and penalties. The accrued interest balance as of 31 December 2020 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 2020 presented in the table above excludes accrued interest and penalties (USD 36 million).

During the year, certain tax positions and audits in the United Kingdom, Japan, Malaysia, United States and Switzerland were effectively settled.

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

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

Australia	2014–2020
Brazil	2016–2020
Canada	2012–2020
China	2010–2020
Denmark	2015–2020
France	2018–2020
Germany	2017–2020
Hong Kong	2014–2020
India	2004; 2010–2020
Ireland	2016–2020
Israel	2016–2020
Italy	2016–2020
Korea	2015–2020
Luxembourg	2016–2020
Malaysia	2016–2020
Mexico	2016–2020
Netherlands	2015–2020
New Zealand	2014–2020
Singapore	2014–2020
Slovakia	2016–2020
South Africa	2015–2020
Spain	2016–2020
Switzerland	2016–2020
United Kingdom	2019–2020
United States	2017–2020

13 Benefit plans

Defined benefit pension plans and post-retirement benefits

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

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

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

2019 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	3 832	1 797	319	5 948
Service cost	99	6	3	108
Interest cost	29	54	7	90
Amendments			–1	–1
Actuarial gains/losses	307	230	24	561
Benefits paid	–59	–80	–16	–155
Employee contribution	32			32
Effect of settlement, curtailment and termination	–150			–150
Effect of foreign currency translation	75	22	4	101
Benefit obligation as of 31 December	4 165	2 029	340	6 534
Fair value of plan assets as of 1 January	3 760	1 846	0	5 606
Actual return on plan assets	391	263		654
Company contribution	97	13	16	126
Benefits paid	–59	–80	–16	–155
Employee contribution	32			32
Effect of settlement, curtailment and termination	–150			–150
Effect of foreign currency translation	74	32		106
Fair value of plan assets as of 31 December	4 145	2 074	0	6 219
Funded status	–20	45	–340	–315

2020 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	4 165	2 029	340	6 534
Service cost	120	8	4	132
Interest cost	4	42	5	51
Amendments				0
Actuarial gains/losses	226	154	10	390
Benefits paid	–49	–78	–17	–144
Employee contribution	35			35
Effect of settlement, curtailment and termination	–161			–161
Effect of foreign currency translation	410	79	18	507
Benefit obligation as of 31 December	**4 750**	**2 234**	**360**	**7 344**
Fair value of plan assets as of 1 January	4 145	2 074	0	6 219
Actual return on plan assets	220	231		451
Company contribution	104	13	17	134
Benefits paid	–49	–78	–17	–144
Employee contribution	35			35
Effect of settlement, curtailment and termination	–161			–161
Effect of foreign currency translation	408	76		484
Fair value of plan assets as of 31 December	**4 702**	**2 316**	**0**	**7 018**
Funded status	**–48**	**82**	**–360**	**–326**

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

2019 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Non-current assets		240		240
Current liabilities		–3	–17	–20
Non-current liabilities	–20	–192	–323	–535
Net amount recognised	–20	45	–340	–315

2020 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Non-current assets		294		294
Current liabilities		–3	–18	–21
Non-current liabilities	–48	–209	–342	–599
Net amount recognised	**–48**	**82**	**–360**	**–326**

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

2019 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	818	321	13	1 152
Prior service cost/credit	–85	2	–50	–133
Total	733	323	–37	1 019

2020 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	832	300	23	1 155
Prior service cost/credit	–70	2	–35	–103
Total	**762**	**302**	**–12**	**1 052**

Components of net periodic benefit cost

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

2019 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Service cost (net of participant contributions)	99	6	3	108
Interest cost	29	54	7	90
Expected return on assets	–93	–67		–160
Amortisation of:				
Net gain/loss	35	11	–2	44
Prior service cost	–15		–15	–30
Effect of settlement, curtailment and termination	28			28
Net periodic benefit cost	83	4	–7	80

2020 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Service cost (net of participant contributions)	120	8	4	132
Interest cost	4	42	5	51
Expected return on assets	–102	–53		–155
Amortisation of:				
Net gain/loss	66	13		79
Prior service cost	–15		–15	–30
Effect of settlement, curtailment and termination	34			34
Net periodic benefit cost	**107**	**10**	**–6**	**111**

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

2019 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	10	34	24	68
Prior service cost/credit			–1	–1
Amortisation of:				
Net gain/loss	–35	–11	2	–44
Prior service cost	15		15	30
Effect of settlement, curtailment and termination	–26			-26
Exchange rate gain/loss recognised during the year		–1		–1
Total recognised in other comprehensive income, gross of tax	–36	22	40	26
Total recognised in net periodic benefit cost and other comprehensive income, gross of tax	47	26	33	106

2020 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	108	–24	10	94
Prior service cost/credit				0
Amortisation of:				
Net gain/loss	–66	–13		–79
Prior service cost	15		15	30
Effect of settlement, curtailment and termination	–28			–28
Exchange rate gain/loss recognised during the year		16		16
Total recognised in other comprehensive income, gross of tax	**29**	**–21**	**25**	**33**
Total recognised in net periodic benefit cost and other comprehensive income, gross of tax	**136**	**–11**	**19**	**144**

The Group and affiliated companies' accumulated benefit obligation (the current value of accrued benefits excluding future salary increases) for pension benefits was USD 6 126 million and USD 6 920 million as of 31 December 2019 and 2020, respectively.

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

USD millions	2019	**2020**
Projected benefit obligation	4 790	5 455
Fair value of plan assets	4 575	5 195

USD millions	2019	**2020**
Accumulated benefit obligation	616	5 413
Fair value of plan assets	430	5 195

Principal actuarial assumptions

	Swiss plan		Foreign plans weighted average		Other benefits weighted average	
	2019	**2020**	2019	**2020**	2019	**2020**
Assumptions used to determine obligations at the end of the year						
Discount rate	0.1%	0.0%	2.1%	1.6%	1.5%	1.1%
Rate of compensation increase	1.8%	1.8%	2.8%	2.6%	2.1%	2.1%
Interest crediting rate	1.5%	1.8%				
Assumptions used to determine net periodic pension costs for the year ended						
Discount rate	0.8%	0.1%	3.0%	2.1%	2.2%	1.5%
Expected long-term return on plan assets	2.5%	2.5%	3.6%	2.7%		
Rate of compensation increase	1.8%	1.8%	2.8%	2.8%	2.1%	2.1%
Interest crediting rate	1.5%	1.8%				
Assumed medical trend rates at year end						
Medical trend – initial rate					4.4%	4.3%
Medical trend – ultimate rate					3.6%	3.6%
Year that the rate reaches the ultimate trend rate					2023	2024

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.

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 2019 and 2020 was as follows:

	Swiss plan allocation			Foreign plans allocation		
	2019	**2020**	**Target allocation**	2019	**2020**	**Target allocation**
Asset category						
Equity securities	26%	26%	23%	7%	5%	6%
Debt securities	41%	37%	46%	82%	76%	86%
Real estate	18%	18%	23%	0%	0%	0%
Other	15%	19%	8%	11%	19%	8%
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 shares of USD 3 million (0.05% of total plan assets) and USD 2 million (0.03% of total plan assets) as of 31 December 2019 and 2020, respectively.

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

Assets measured at fair value

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

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

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

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

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

2019 USD millions	Fair value Quoted prices in active markets for identical assets (level 1)	Fair value Significant other observable inputs (level 2)	Fair value Significant unobservable inputs (level 3)	Investments measured at net asset value as practical expedient	Total
Assets					
Fixed income securities:					
Government debt securities	41	1 477			1 518
Corporate debt securities		1 829	11		1 840
RMBS/CMBS/ABS		13			13
Equity securities	1 082	140			1 222
Real estate	4		756		760
Other assets		104		578	682
Cash and cash equivalents	184				184
Total plan assets	1 311	3 563	767	578	6 219

2020 USD millions	Fair value Quoted prices in active markets for identical assets (level 1)	Fair value Significant other observable inputs (level 2)	Fair value Significant unobservable inputs (level 3)	Investments measured at net asset value as practical expedient	Total
Assets					
Fixed income securities:					
Government debt securities	60	1 521			1 581
Corporate debt securities		1 892	11		1 903
RMBS/CMBS/ABS		9			9
Equity securities	1 209	121			1 330
Real estate	4		861		865
Other assets		56		1 155	1 211
Cash and cash equivalents	119				119
Total plan assets	**1 392**	**3 599**	**872**	**1 155**	**7 018**

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:

2019 USD millions	Real estate	Other assets	Total
Balance as of 1 January	721	10	731
Realised/unrealised gains/losses:			
Relating to assets still held at the reporting date	20	1	21
Relating to assets sold during the period			0
Purchases, issuances and settlements	2		2
Transfers in and/or out of level 3			0
Impact of foreign exchange movements	13		13
Closing balance as of 31 December	756	11	767

2020 USD millions	Real estate	Other assets	Total
Balance as of 1 January	756	11	767
Realised/unrealised gains/losses:			
Relating to assets still held at the reporting date	19	–1	18
Relating to assets sold during the period			0
Purchases, issuances and settlements	12		12
Transfers in and/or out of level 3			0
Impact of foreign exchange movements	74	1	75
Closing balance as of 31 December	**861**	**11**	**872**

Expected contributions and estimated future benefit payments

The employer contributions expected to be made in 2021 to the defined benefit pension plans are USD 127 million and to the post-retirement benefit plan are USD 18 million.

As of 31 December 2020, the projected benefit payments, which reflect expected future service, not adjusted for transfers in and for employees' voluntary contributions, are as follows:

USD millions	Swiss plan	Foreign plans	Other benefits	Total
2021	240	83	18	341
2022	233	87	18	338
2023	226	89	18	333
2024	228	91	19	338
2025	222	93	19	334
Years 2026–2030	1 095	485	93	1 673

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 2019 and 2020 was USD 63 million and USD 64 million, 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:

2019 USD millions	Corporate Solutions	Life Capital	Other	Total
Revenues				
Gross premiums written	373	1 119		1 492
Net premiums written	305	1 119		1 424
Change in unearned premiums	–41	–11		–52
Premiums earned	264	1 108		1 372
Net investment income – non-participating business	–3	12	–1	8
Net realised investment gains/losses – non-participating business	29	–12	–25	–8
Other revenues	3	7	1	11
Total revenues	293	1 115	–25	1 383
Expenses				
Claims and claim adjustment expenses	–609			–609
Life and health benefits		–974		–974
Acquisition costs	–28	–168		–196
Operating expenses	76	5	–1 422	–1 341
Interest expenses	–5	–3	–187	–195
Total expenses	–566	–1 140	–1 609	–3 315

2020 USD millions	Corporate Solutions	Life Capital	Other	Total
Revenues				
Gross premiums written	1 605	1 263		2 868
Net premiums written	1 557	1 263		2 820
Change in unearned premiums	–892	–35		–927
Premiums earned	665	1 228		1 893
Net investment income/loss – non-participating business	7	5	3	15
Net realised investment gains/losses – non-participating business	36	–48	8	–4
Other revenues	3			3
Total revenues	**711**	**1 185**	**11**	**1 907**
Expenses				
Claims and claim adjustment expenses	–456	–7		–463
Life and health benefits		–1 080		–1 080
Acquisition costs	–175	–219		–394
Operating expenses	68	8	–1 462	–1 386
Interest expenses	–2	–1	–149	–152
Total expenses	**–565**	**–1 299**	**–1 611**	**–3 475**

2019 USD millions	Corporate Solutions	Life Capital	Other	Total
Assets				
Policy loans, mortgages and other loans		86	60	146
Other invested assets	31	75	121	227
Premiums and other receivables	912	752		1 664
Reinsurance recoverable on unpaid claims and policy benefits	429			429
Funds held by ceding companies	393	15		408
Deferred acquisition costs	16	175		191
Other assets	3	11	112	126
Total assets	1 784	1 114	293	3 191
Liabilities				
Unpaid claims and claim adjustment expenses	5 011	664		5 675
Liabilities for life and health policy benefits		468		468
Unearned premiums	125	71		196
Funds held under reinsurance treaties	67			67
Reinsurance balances payable	256	632		888
Short-term debt			2 230	2 230
Long-term debt			429	429
Accrued expenses and other liabilities	592	295	1 190	2 077
Total liabilities	6 051	2 130	3 849	12 030

2020 USD millions	Corporate Solutions	Life Capital	Other	Total
Assets				
Policy loans, mortgages and other loans	500	66	60	626
Other invested assets	35	27	196	258
Premiums and other receivables	1 090	361		1 451
Reinsurance recoverable on unpaid claims and policy benefits	355			355
Funds held by ceding companies	586	36		622
Deferred acquisition costs	241	277		518
Other assets	32	10	104	146
Total assets	**2 839**	**777**	**360**	**3 976**
Liabilities				
Unpaid claims and claim adjustment expenses	4 900	953		5 853
Liabilities for life and health policy benefits		138		138
Unearned premiums	1 002	136		1 138
Funds held under reinsurance treaties	36			36
Reinsurance balances payable	697	227		924
Short-term debt			1 783	1 783
Long-term debt		613	1 193	1 806
Accrued expenses and other liabilities	548	138	3 685	4 371
Total liabilities	**7 183**	**2 205**	**6 661**	**16 049**

In 2020, Swiss Re Corporate Solutions Ltd (SRCS) obtained bondholder consent for the substitution of SRZ in place of SRCS as obligor under the USD 500 million Subordinated Fixed Rate Resettable Callable Loan Notes. The issuer substitution became effective on 15 December 2020.

In 2020, Swiss Re Investments Holding Company Ltd and its subsidiary were sold by Swiss Re Ltd, an affiliated company within the Swiss Re Group, to SRZ. For the common control transfer of the assets, the sale was accounted prospectively, and the equity shares transferred were recognised at carrying value.

Share in earnings and dividends received from equity-accounted investees for the years ended 31 December, were as follows:

USD millions	2019	**2020**
Share in earnings of equity-accounted investees	51	43
Dividends received from equity-accounted investees	63	79

An overview of the financing activities between the Group and affiliated companies is shown below:

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Book value in USD millions
2021	Senior Loan	2018	USD	1 500	3.12%	1 500
2021	Senior Loan	2019	USD	283	0.15%	283
2022	Senior Loan	2020	USD	500	3mLIBOR + 0.65%	500
2022	Senior Loan	2020	USD	613	3mLIBOR + 0.68%	613
2025	Subordinated Loan	2020	SGD	350	3.18%	263
2043	Subordinated Loan	2018	USD	430	5.75%	430
Total debt as of 31 December 2020						**3 589**

SRZ has entered into subordinated funding facilities with its parent company Swiss Re Ltd under which SRZ has the right, among others, to issue subordinated notes to Swiss Re Ltd at any time. For its various rights, SRZ owes Swiss Re Ltd an unconditional fixed commitment fee on the total facility amount, payable in annual instalments. Annually, SRZ receives a partial reimbursement of the commitment fee on the undrawn facility amount. As of 31 December 2020, the facilities were undrawn.

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

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

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

15 Commitments and contingent liabilities

As a participant in limited and other investment partnerships, the Group commits itself to making available certain amounts of investment funding, callable by the partnerships for periods of up to ten years. The total commitments remaining uncalled as of 31 December 2020 were USD 1 660 million.

The Group has entered into various real estate construction contracts. The commitments under the contracts amount to USD 127 million over the next six 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 resolution 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 Group enters into arrangements with variable interest entities (VIEs) in the normal course of business. The involvement ranges from being a passive investor to designing, structuring and managing the VIEs. The variable interests held by the Group arise primarily as a result of the Group's involvement in certain insurance-linked securitisations, life and health funding transactions, swaps in trusts, debt financing, investment, senior commercial mortgage and infrastructure loans as well as other entities, which meet the definition of a VIE.

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

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

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

- 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 regularly reassesses 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 the 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 the power to direct any activities of the trusts and therefore does not qualify as primary beneficiary of any of these trusts. These activities are in run-off.

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

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

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

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

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

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

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

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

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

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

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

Other

The Group consolidates a vehicle providing reinsurance to its members, because it serves as a decision maker over the entity's investment and underwriting activities, 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 the event 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 2020 that it was not previously contractually required to provide.

Consolidated VIEs

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

USD millions	2019	**2020**
Fixed income securities available-for-sale	3 423	3 807
Short-term investments	260	59
Cash and cash equivalents	34	19
Accrued investment income	27	30
Premiums and other receivables	31	35
Funds held by ceding companies	1	1
Deferred acquisition costs	3	5
Deferred tax assets	167	180
Other assets	15	14
Total assets	3 961	**4 150**
Unpaid claims and claim adjustment expenses	55	59
Unearned premiums	12	16
Funds held under reinsurance treaties	4	4
Reinsurance balances payable	21	22
Deferred and other non-current tax liabilities	137	155
Accrued expenses and other liabilities	15	18
Long-term debt	1 918	1 926
Total liabilities	2 162	**2 200**

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

Non-consolidated VIEs

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

USD millions	2019	**2020**
Fixed income securities available-for-sale	1 046	1 084
Equity securities at fair value through earnings	59	42
Policy loans, mortgages and other loans	1 264	1 509
Other invested assets	1 585	1 963
Investments for unit-linked business	148	145
Funds held by ceding companies		25
Total assets	4 102	**4 768**
Unpaid claims and claim adjustment expenses		19
Accrued expenses and other liabilities	43	52
Total liabilities	43	**71**

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

USD millions	2019 Total assets	2019 Total liabilities	2019 Maximum exposure to loss[1]	**2020** Total assets	2020 Total liabilities	2020 Maximum exposure to loss[1]
Insurance-linked securitisations	598		627	545		381
Life and health funding vehicles	22		2 300	20		2 377
Swaps in trusts	83	43	–[2]	14	52	–[2]
Investment vehicles	1 540		1 540	1 972		1 972
Investment vehicles for unit-linked business	148			145		
Senior commercial mortgage and infrastructure loans	1 711		1 711	2 047		2 047
Other				25	19	
Total	4 102	43	–[2]	**4 768**	**71**	**–[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.

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Report of the statutory auditor

to the General Meeting of Swiss Reinsurance Company Ltd

Zurich

Report of the statutory auditor on the consolidated financial statements

As statutory auditor, we have audited the accompanying consolidated financial statements of Swiss Reinsurance Company Ltd and its subsidiaries (the 'Group'), which comprise the income statement and statement of comprehensive income for the year ended 31 December 2020, the balance sheet as at 31 December 2020 and the statement of shareholder's equity and the statement of cash flows for the year then ended, and notes to the Group financial statements (pages 2 to 92).

Board of Directors' responsibility

The Board of Directors is responsible for the preparation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (US GAAP) and the requirements of Swiss law. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation 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 (US GAAS). 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 judgment, 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 Group's preparation 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 Group'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 consolidated financial statements of the Group for the year ended 31 December 2020 present fairly, in all material respects, the financial position, the results of operations and the cash flows in accordance with accounting principles generally accepted in the United States of America (US GAAP) and comply with Swiss law.

Other Matter

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

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

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the 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	How our audit addressed the key audit matter
Investment valuation continues to be an area with inherent risk for certain level 2 and 3 investments that have unobservable or interpolated inputs. The risk is not the same for all investment types and is greatest for those listed below. These investments are more difficult to value because quoted prices are not always available, and valuation requires unobservable or interpolated inputs and complex valuation models: • Fixed income securitised products • Fixed income mortgage and asset-backed securities • Private placements and infrastructure loans • Private equity investments • Derivatives • Insurance-related financial products	We assessed and tested the design and operating effectiveness of selected relevant controls around the valuation models for level 2 and 3 investments, including the Group's independent price verification process. We also tested the Group's data integrity and change management controls relating to the valuation models. In relation to the matters set out opposite, our substantive testing procedures included the following: • Challenging the Group's methodology and assumptions, in particular, the yield curves, discounted cash flows, perpetual growth rates and liquidity premiums used in the valuation models; comparing these assumptions against appropriate benchmarks; and investigating significant differences. • Engaging our own valuation specialists to perform independent valuations of selected level 2 and 3 investments. Based on the work performed, we determined the Group's conclusions with regard to the valuation of these investments to be reasonable.

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

Key audit matter	How our audit addressed the key audit matter
The valuation of P&C loss reserves within the unpaid claims and claim adjustment expenses financial statement line item involves a high degree of subjectivity and complexity. Reserves for losses and loss adjustment expenses represent estimates of future payments of reported and unreported claims for losses and related expenses at a given date. The Group uses a range of actuarial methodologies and methods to estimate these reserves. P&C loss reserves require significant judgment relating to certain factors and assumptions. Among the most significant reserving assumptions are the a-priori loss ratios, which typically drive the estimates of P&C loss reserves for the most recent contract years. Other key factors and assumptions include but are not limited to changes in exposure and business mix as well as inflation trends, claim emergence trends, and legal or regulatory decisions. In particular, loss reserves for 'long tail' lines of business (for example, Liability, US Asbestos and Environmental, Motor and Workers' Compensation portfolios) generally require more judgment to estimate. This is due to the protracted period over which claims may be reported and/or settled as well as the fact that claim settlements are often less frequent but of higher magnitude. Moreover, losses from natural catastrophe, significant man-made and COVID-19 pandemic events cannot be modelled using traditional actuarial methodologies or available proprietary models, which increases the degree of judgment needed in establishing reserves for these events. The ongoing nature of the COVID-19 pandemic and additional complexity because of unresolved contract coverage issues, notably on property lines, required particular focus and judgment by management.	We assessed and tested the design and operating effectiveness of selected relevant controls relating to the application of the actuarial methodology, data collection and analysis, as well as the processes for determining the assumptions used by the Group in the valuation of P&C loss reserves. In relation to the matters set out opposite, our substantive testing procedures included involving our PwC internal actuarial specialists, as appropriate, to perform the following: • Testing the completeness and accuracy of underlying data utilised by the Group's actuaries in estimating P&C loss reserves; this includes applying IT audit techniques to validate the claims triangles used by management to develop reserving estimates. • Performing independent projections of selected portfolios. For these portfolios, we compared our calculations of projected reserves with those of the Group taking into account the available corroborating and contrary evidence and challenging the Group's assumptions as appropriate. • Testing the reasonableness of the methodology and assumptions for further selected portfolios by comparing the methodologies and assumptions adopted by the Group with recognised actuarial practices and by applying our industry knowledge and experience. • Assessing the process and related judgments of the Group 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. • Challenging the process followed and related judgments of the Group in relation to COVID-19 pandemic losses to assess the reasonableness of loss estimates. • Where there was significant estimation uncertainty, performing sensitivity tests to determine the impact of selected key assumptions. • Evaluating the appropriateness of any significant adjustments made by the Group to P&C loss reserve estimates. Based on the work performed, we determined the Group's conclusions with regard to the valuation of P&C loss reserves to be reasonable.

Valuation of actuarially determined liabilities for Life & Health ('L&H') policy benefits

Key audit matter	How our audit addressed the key audit matter
The Group's valuation of actuarially determined liabilities for L&H policy benefits involves complex judgments about future events affecting the business. Actuarial assumptions selected by the Group, including mortality, morbidity, longevity, and persistency, may result in material impacts on the valuation of liabilities for L&H policy benefits. The methodology and methods used can also have a material impact on the valuation of actuarially determined liabilities for L&H policy benefits. In addition, the impact of the COVID-19 pandemic required additional management judgment, particularly over shorter-term mortality assumptions. The valuation of actuarially determined liabilities for L&H policy benefits depends on the use of complex models. The Group continues to migrate actuarial data and models from legacy systems and/or spreadsheets to new actuarial modelling systems. At the same time, the Group 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 the liabilities for L&H policy benefits need to be assessed in terms of appropriateness and classified as a change in estimate or as an out-of-period adjustment. Furthermore, on a regular basis, the Group enters into large and/or structured transactions which often have material or complex financial reporting and reserving consequences. The reserving for such transactions is subject to increased risk of error due to the non-routine nature of transactions and the judgmental nature of reserving.	We assessed and tested the design and operating effectiveness of selected relevant controls relating to the application of actuarial methodology, data collection and analysis, as well as the processes for determining the assumptions used by the Group in the valuation of actuarially determined liabilities for L&H policy benefits. In relation to the matters set out opposite, our substantive testing procedures included involving our PwC internal actuarial specialists, as appropriate, to perform the following, which are applicable for the valuation of both standard and large and/or structured transactions: • 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. • Testing the Group'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. • Testing the reasonableness of L&H assumptions by applying our industry knowledge and experience to check whether the assumptions are consistent with recognised actuarial practices and industry trends. • Challenging the process followed and related judgments of the Group in relation to COVID-19 pandemic losses to assess the reasonableness of loss estimates. • Evaluating the appropriateness of the recognition, accounting, valuation, and disclosures for large and/or structured transactions. Based on the work performed, we determined the Group's conclusions with regard to the valuation of actuarially determined liabilities for L&H policy benefits to be reasonable.

Valuation of deferred tax assets and completeness and valuation of uncertain tax positions

Key audit matter	How our audit addressed the key audit matter
The Group operates in various countries and is subject to income taxes in those jurisdictions. The assessment of the valuation of deferred tax assets, resulting from net operating losses and temporary differences, and provisions for uncertain tax positions is based on complex calculations and depends on sensitive and judgmental assumptions made by the Group. These include, amongst others, future profitability and local fiscal regulations and developments. Changes in those estimates may have a material impact (through income tax expense) on the Group's results.	We assessed and tested the design and operating effectiveness of selected relevant controls related to the valuation of deferred tax assets and selected relevant controls in place to determine the completeness of the uncertain tax items and the Group's assessment of the items for recognition and valuation. In relation to the matters set out opposite, our substantive testing procedures included the following: • Involving our own tax specialists to critically review the Group's 'more likely than not' tax assessments and to evaluate the Group's judgments and estimates of the probabilities and the amounts. • Assessing the feasibility of the Group's tax planning measures, including the assessment of forecasted taxable income and any relevant tax rulings that impact the recoverability of deferred tax assets resulting from net operating losses. • Assessing how the Group considered new information or changes in tax law or case law and assessing the Group's judgment of how these impact the Group's position or measurement of the required provision. • Examining tax audit documentation to validate the appropriateness of releases of uncertain tax provisions. • Evaluating the appropriateness of the Group's assessment of completeness of uncertain tax positions. • Examining material movements within uncertain tax positions in each jurisdiction. Based on the work performed, we determined the Group's assessments of the valuation of deferred tax assets and the completeness and valuation of uncertain tax positions to be reasonable.

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

Roy Clark	Jasmine Chang
Audit expert Auditor in charge	

Zurich, 17 March 2021

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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 2020, the Company employed a worldwide staff at an average of 1 444 full time equivalents.

Financial year 2020

Net income for 2020 amounted to CHF 1 586 million, driven by gains from various large intragroup transactions, partly offset by COVID-19 and large natural catastrophe losses. Life & Health Reinsurance result was further positively impacted by assumption updates.

COVID-19 losses in property and casualty business amounted to CHF 1 403 million, largely due to the business interruptions and event cancellation losses. COVID-19 losses in life and health business amounted to CHF 377 million, mainly driven by additional adverse mortality experience. Excluding these COVID-19 related claims and changes in reserves for the year, the Company's net income before income tax expense for 2020 was CHF 3 401 million.

The investment result benefitted from the distribution of retained income from investment funds of CHF 626 million.

In order to further align the legal entity structure with the management view in Asia, the Company sold the assets and liabilities of its Australia, Hong Kong, Japan and Malaysia branches to Swiss Re Asia Pte. Ltd. With this sale the Company transferred the related rights and obligations as well as the employees of the branches. Following the transfers, the intragroup retrocession agreements were restructured, including the inception of a life and health intragroup retrocession agreement with Swiss Re Asia Pte. Ltd., Hong Kong branch. Additionally, the Company novated the non-disability income business assumed from Swiss Re Life & Health Australia Limited to Swiss Re Asia Pte. Ltd.

The Company retroceded a share of its global life and health portfolio to Swiss Re Nexus Reinsurance Company Ltd, formerly Swiss Re Life Capital Reinsurance Ltd, a new indirect subsidiary of the Company after its purchase by Swiss Re Reinsurance Holding Company Ltd. Further, the retrocession agreement for the Canada life and health business was recaptured by Swiss Re Nexus Reinsurance Company Ltd.

The aforementioned large intercompany transactions impacted both the Company's income statement and balance sheet, resulting in a net income of CHF 3 063 million, and were accompanied by capital contributions from the Company to subsidiaries of Swiss Re Reinsurance Holding Company Ltd of CHF 6 783 million.

In addition, the financial year 2020 was characterised by significant foreign exchange impacts, affecting both the Company's income statement and balance sheet, mainly as a result of the weakening of the US dollar against the Swiss franc.

With CHF 11 803 million the total shareholder's equity of the Company remained strong as at 31 December 2020.

Reinsurance result
Reinsurance result amounted to a gain of CHF 1 574 million in 2020, compared to a loss of CHF 842 million in 2019. Excluding the COVID-19 related claims and changes in reserves for the year of CHF 1 780 million, the Company's reinsurance result amounted to a gain of CHF 3 354 million in 2020.

Life & Health Reinsurance result increased from a loss of CHF 157 million in 2019 to a gain of CHF 2 764 million in 2020, mostly driven by one-off gains from the intragroup retrocession restructuring with Swiss Re Asia Pte. Ltd. and Swiss Re Nexus Reinsurance Company Ltd as well as the Asian branch transfers to Swiss Re Asia Pte. Ltd. and a subsequent intragroup retrocession agreement with Swiss Re Asia Pte. Ltd., Hong Kong branch. Property & Casualty Reinsurance result decreased from a loss of CHF 685 million in 2019 to a loss of CHF 1 190 million in 2020. This was largely due to the COVID-19 losses, especially in Europe and mainly in property and liability lines of business, due to the business interruptions and event cancellation losses, as well as losses from the Beirut explosion. Despite large losses from hurricanes in the US and hailstorms and flooding in Australia, the Company was exposed to less natural catastrophe losses, compared to the prior year, and benefitted from positive prior year loss experience in 2020.

Premiums earned decreased from CHF 20 872 million in 2019 to CHF 20 486 million in 2020. Both property and casualty as well as life and health business were impacted by the intragroup retrocession restructuring following the Asian branch transfers to Swiss Re Asia Pte. Ltd. Premiums earned for the life and health business were further negatively impacted by foreign exchange impacts and the newly incepted intragroup agreement, to retrocede a share of the Company's global life and health portfolio to Swiss Re Nexus Reinsurance Company Ltd. These movements were partly offset by the business volume increase and the new intragroup retrocession agreement with Swiss Re Asia Pte. Ltd., Hong Kong branch. The volume increase in the property and casualty business was mainly driven by retrocession agreements with affiliated companies in the US and Swiss Re Europe S.A. as well as the casualty business in Europe. This was partly offset by the business volume decrease in Americas and higher external retrocession premiums.

Other reinsurance revenues increased from CHF 2 446 million in 2019 to CHF 3 946 million in 2020, mainly in life and health business, due to one-off gains from the novation of the non-disability income business assumed from Swiss Re Life & Health Australia Limited to Swiss Re Asia Pte. Ltd., the Asian branch transfers to Swiss Re Asia Pte. Ltd. as well as the inception of a new intragroup retrocession agreement with Swiss Re Nexus Reinsurance Company Ltd. This was partly offset by one-off gains in 2019 from the inception of an external life and health retrocession agreement in Asia and the property and casualty business, mostly driven by the restructuring of several intragroup retrocession agreements with affiliated companies in the US, incepted in 2019.

Claims incurred increased from CHF 16 479 million in 2019 to CHF 16 745 million in 2020, mostly reflecting the COVID-19 and large natural catastrophe losses in 2020. The comparison of the individual claims line items is affected by the Asian branch transfers to Swiss Re Asia Pte. Ltd., the restructuring of several intragroup retrocession agreements as well as the various large life and health transactions, creating substantial changes year-over-year. In aggregate, these various movements fully offset each other.

Property and casualty claims paid and claim adjustment expenses net increased from CHF 6 481 million in 2019 to CHF 8 442 million in 2020, mainly reflecting the restructuring of several intragroup retrocession agreements with affiliated companies in the US in the prior year with an offset in change in unpaid claims net. Property and casualty change in unpaid claims net decreased from CHF 4 173 million in 2019 to CHF 3 120 million in 2020, additionally due to significant reserve releases in Japan, mostly related to the typhoons Jebi, Hagibis and Trami, and the positive impact from a recapture of a non-proportional treaty with Swiss Re Asia Pte. Ltd., due to prior year losses. This was offset by the COVID-19 losses, the large natural catastrophe losses in the US and the significant man-made losses such as Beirut explosion.

Life and health claims paid and claim adjustment expenses net and change in unpaid claims net increased from CHF 2 910 million in 2019 to CHF 6 398 million in 2020, primarily impacted by the intragroup retrocession restructuring with Swiss Re Nexus Reinsurance Company Ltd in 2020 as well as the intragroup retrocession restructuring with Swiss Re Life & Health America Inc. in the prior year. These restructurings were fully offset in life and health benefits net.

Life and health benefits net increased from a loss of CHF 3 136 million in 2019 to a gain of CHF 1 215 million in 2020, mainly driven by the intragroup retrocession restructuring with Swiss Re Nexus Reinsurance Company Ltd in 2020 as well as the intragroup retrocession restructuring with Swiss Re Life & Health America Inc. in the prior year. These restructurings were fully offset in life and health claims paid and claim adjustment expenses net and change in unpaid claims net. Furthermore, the reserve decreased due to assumption updates, partly offset by interest rate movements.

Acquisition costs net decreased from CHF 5 167 million in 2019 to CHF 4 804 million in 2020, mostly in life and health business, due to an accounting methodology change in Asia as well as from the business retroceded by Swiss Re Europe S.A. and one-off gains in 2019 from the inception of an external life and health retrocession agreement in Asia.

Other reinsurance expenses decreased from CHF 2 055 million in 2019 to CHF 865 million in 2020, mainly impacted by the restructuring of several intragroup retrocession agreements with affiliated companies in the US, incepted in 2019, partly offset by one-off losses from the newly incepted intragroup retrocession agreement with Swiss Re Asia Pte. Ltd., Hong Kong branch in the life and health business.

Investment result

Investment result decreased from CHF 4 916 million in 2019 to CHF 1 303 million in 2020. The decrease was mainly driven by the lower dividend income from subsidiaries and affiliated companies of CHF 79 million, compared to the prior year of CHF 2 657 million, mostly related to the dividend from Swiss Re Reinsurance Holding Company Ltd of CHF 2 615 million. In addition, the distribution of retained income from investment funds decreased from CHF 1 474 million in 2019 to CHF 626 million in 2020.

Assets

Total assets increased from CHF 120 322 million as of 31 December 2019 to CHF 121 878 million as of 31 December 2020.

Total investments increased from CHF 62 561 million to CHF 70 211 million in 2020. Investments in subsidiaries and affiliated companies increased by CHF 7 517 million to CHF 22 864 million in 2020. The increase was primarily driven by various capital contributions to subsidiaries of Swiss Re Reinsurance Holding Company Ltd of CHF 6 783 million, mainly in connection with the Asian branch transfers to Swiss Re Asia Pte. Ltd., the funding of Swiss Re Nexus Reinsurance Company Ltd and Swiss Re Asia Pte. Ltd., in light of the various intragroup retrocession restructurings with the Company, as well as the funding to Swiss Re Principal Investments Company Asia Pte. Ltd. in order to purchase shares of two alternative investment companies. In addition, Swiss Re Ltd contributed in-kind its direct investment in Swiss Re Investments Holding Company Ltd to the Company in the amount of CHF 594 million.

Short-term investments increased by CHF 3 966 million to CHF 7 896 million in 2020, mainly related to reinvested proceeds from fixed income securities, following the Company's strategic asset allocations.

Funds held by ceding companies decreased from CHF 16 273 million to CHF 14 094 million in 2020. The decrease in the life and health business was particularly related to the intragroup retrocession restructuring with Swiss Re Nexus Reinsurance Company Ltd and foreign exchange impacts. The property and casualty business increased, largely driven by the intragroup retrocession agreements with affiliated companies in the US, mostly in liability business, partly offset by the external business in Americas and the intragroup retrocession agreements with Swiss Re Europe S.A.

Reinsurance recoverable on technical provisions retroceded decreased from CHF 14 741 million to CHF 12 991 million in 2020. The decrease was mainly in the property and casualty business, driven by the Asian branch transfers to Swiss Re Asia Pte. Ltd. On the other hand, the life and health business increased, as a result of the new intragroup retrocession agreement to Swiss Re Nexus Reinsurance Company Ltd, only partly offset by reserve releases related to the Canadian business and foreign exchange impacts.

Deferred acquisition costs decreased from CHF 2 459 million to CHF 1 918 million in 2020, mostly as a result of the novation of the non-disability income business to Swiss Re Asia Pte. Ltd.

Premiums and other receivables from reinsurance decreased from CHF 14 117 million to CHF 13 706 million in 2020, reflecting for both property and casualty as well as life and health business the Asian branch transfers to Swiss Re Asia Pte. Ltd. An increase in the life and health business overall was due to compensating impacts from the business written in Europe, Middle East and Africa, and a new deal written by Swiss Re Europe S.A. This was partially offset by foreign exchange impacts.

Accrued income decreased from CHF 2 894 million to CHF 845 million in 2020, mainly related to the 2019 dividend from Swiss Re Reinsurance Holding Company Ltd of CHF 2 615 million, paid by the subsidiary in 2020. This was partly offset by the newly accrued distribution of retained income from investment funds of CHF 626 million, to be paid in 2021.

Liabilities

Total liabilities increased from CHF 109 088 million as of 31 December 2019 to CHF 110 075 million as of 31 December 2020.

Technical provisions gross decreased from CHF 76 337 million to CHF 71 820 million in 2020. Both property and casualty as well as life and health business decreased, mostly related to the Asian branch transfers to Swiss Re Asia Pte. Ltd. and foreign exchange impacts. Additionally, the property and casualty business decreased, mainly due to a recapture of a non-proportional treaty with Swiss Re Asia Pte. Ltd. This was partly offset by the business assumed from affiliated companies in the US and Swiss Re Europe S.A., impacted by the large natural catastrophe losses in the US and the COVID-19 losses. Further, the decrease in the life and health business was moreover driven by the recapture of the Canada life and health business by Swiss Re Nexus Reinsurance Company Ltd. These movements were partially offset by the impact from the inception of a new business in Japan.

Provision for currency fluctuation increased by CHF 672 million to CHF 1 672 million in 2020, driven by net unrealised foreign exchange gains, which were 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 2020. This was mainly a result of the weakening of the US dollar against the Swiss franc in the course of 2020.

Debt decreased from CHF 5 033 million to CHF 3 267 million in 2020, mainly due to the redemption of loans with Swiss Re Reinsurance Holding Company Ltd, partly offset by a new external subordinated loan, transferred from an affiliated company to the Company.

Funds held under reinsurance treaties increased from CHF 6 187 million to CHF 7 631 million in 2020, mainly in life and health business, as a result of the cash deposit setup related to the newly incepted intragroup retrocession agreement with Swiss Re Nexus Reinsurance Company Ltd, only partly offset by foreign exchange impacts.

Reinsurance balance payable increased from CHF 7 191 million to CHF 9 170 million in 2020, mostly in property and casualty business, due to an accounting methodology change in Asia and an inward intragroup retrocession agreement with Swiss Re Europe S.A., partly offset by the business volume decrease from the Asian branch transfers to Swiss Re Asia Pte. Ltd. The increase in the life and health business was mainly driven by the new intragroup retrocession agreement with Swiss Re Nexus Reinsurance Company Ltd.

Other liabilities increased from CHF 6 955 million to CHF 9 804 million in 2020, mainly reflecting higher intragroup current account payables in connection with cash pooling agreements.

Shareholder's equity
Shareholder's equity increased from CHF 11 234 million as of 31 December 2019 to CHF 11 803 million as of 31 December 2020.

The increase reflected the net income for the financial year 2020 of CHF 1 586 million and the contribution in-kind by Swiss Re Ltd of its investment in Swiss Re Investments Holding Company Ltd of CHF 594 million, partly offset by the dividend payment in cash for the financial year 2019 of CHF 1 611 million.

Future prospects and business development

In order to further streamline the legal entity structure and to optimise the capital efficiency as well as Swiss Re Group and Business Units funding options, Swiss Re Group intends to reorganise the legal entity structure of its Corporate Solutions Business Unit. In this context, Swiss Re Corporate Solutions Ltd will transfer the rights and obligations of all its assets and liabilities as well as its employees to the Company in the form of a merger, with an accounting effective date 1 January 2021. The Company would in turn have separate holding companies for the Business Units of Reinsurance and Corporate Solutions. With this reorganisation the Company will become the sole direct wholly-owned operating subsidiary of Swiss Re Ltd in 2021.

Further, Swiss Re Life Capital Ltd will transfer the rights and obligations of all its assets and liabilities to the Company in the form of a merger, with an accounting effective date 1 January 2021.

Property & Casualty Reinsurance business
Market environment
The global premiums in non-life reinsurance grew by around 4% in real terms in 2020, with a moderate expansion and stable reinsurance demand in advanced markets and China. Other emerging markets suffered from a lower exposure growth in the primary market. In terms of COVID-19 claims and natural catastrophes, namely the hurricane landfalls, as well as upward revisions to loss estimates, pushed overall losses higher. While COVID-19 claims are still unfolding, the reinsurance industry will take a significant share of the estimated industry loss.

The underlying, catastrophe-adjusted underwriting result improved. This was partly due to better reinsurance prices, which gained momentum through 2020, after a more moderate January 2020 renewal season. There were rate increases in loss-affected lines and regions, but little spillover into unaffected lines. However, significant pricing improvements were registered in the retrocession market, which was adversely affected by high losses between 2017 and 2019 and a significant capacity crunch due to the withdrawal of capital suppliers.

For the renewal rounds in 2021, the Company expects a further increase of reinsurance price as a reflection of elevated losses from natural catastrophes since 2017 and from COVID-19 claims. Premium income of the reinsurance industry is expected to grow by 7% in 2021 and by 5% in 2022, mainly driven by higher prices.

Strategy and priorities
The reinsurance industry has experienced long-term changes driven by growing protection gap and technology advancements and digitalisation. In order to outperform in this environment, the Company is aiming to increase scale and efficiency, leverage on technologies and push the edge of innovation, discipline in underwriting and capital allocation, and it has developed a clear strategy based on the contribution of its three main pillars (core, transactions and solutions).

The Company is applying an active portfolio mix shifting over the last 18 months in line with its Target Liability Portfolio and continues to focus on managing exposures. In terms of lines of business development, underwriting of new US casualty business has been adjusted to help achieve significant profitability improvements. In Property and Casualty, the Company incorporated learnings from recent natural catastrophe events to reinforce strong track record in this line of business. Furthermore, the Company is targeting growth opportunities in Specialty.

Life & Health Reinsurance business
Market environment
The global life and health reinsurance premiums grew by 6% in 2020. This growth was mostly driven by the expansion in emerging medical expense markets, mainly in China and India, compared to a globally lower growth in mortality and health-related reinsurance. Against this background, life reinsurers have sought to increase revenues through large, individual risk transfer transactions that help primary insurers stabilise income and/or bolster their balance sheets. The introduction of risk-based capital regimes has prompted much of this activity. Another area of growth has been longevity risk transfer.

The contribution from investments declined further, due to the ongoing low interest rate environment, which was even accentuated by the further expansionary monetary policy. The underwriting performance was in turn negatively impacted by elevated mortality claims due to COVID-19.

The continued recovery in primary insurance should support growth in life reinsurance revenues, including a recovery in traditional business. Premium growth will nonetheless likely remain moderate, especially in the large advanced markets. In real terms, the Company forecasts global life reinsurance premiums will increase by around 2.5% in 2021 and 2022, while health reinsurance is expected to develop by around 6% annually. This will be mainly driven by the highly populated and growing economies in China and India.

Strategy and priorities
In Life and Health, the Company continues to gain scale and applies a growth strategy on multiple dimensions, which results in a diversified and balanced portfolio in terms of products and markets.

The Company is focused on underwriting to ensure the Company can compete in an evolving insurance landscape. Underwriting reflects both near-term COVID-19 considerations and longer-term trends. With this strategic positioning and broad range of opportunities in Life and Health, the Company supports profitable new business growth and attractiveness and diversification of the in-force portfolio.

Investments
Strategy and priorities
Financial investments are managed in accordance with Swiss Re's Targeted Standard on Asset Management 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 based on 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
The global economy has seen a stronger-than-expected recovery after the pandemic-induced "sudden stop" in spring. However, the renewed COVID-19 waves in both the US and Europe, which occurred as the weather cooled, weighed on economic growth in the fourth quarter, resulting with a 2020 global real Gross Domestic Product (GDP) growth which will still be deeply negative.

Looking ahead, the global economy is expected to recover in 2021, although not all economies will reach pre-COVID-19 Gross Domestic Product (GDP) levels this year. Inflationary pressure is expected to remain moderate even though base effects are likely to lead to a temporary increase in the very near term. In this environment, monetary policy is set to remain highly accommodative. Continued fiscal support is likely necessary to sustain the recovery.

Risk assessment

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

The Board of Directors of Swiss Reinsurance Company Ltd sets the Company's risk tolerance. In this role, it is advised by the Board of Directors of the Swiss Re Group, which defines the Group's basic risk management principles and risk appetite framework including the Group risk tolerance. The Board of Directors of Swiss Re Ltd (the Swiss Re Group) mainly performs risk oversight and governance through three committees:
- The Finance and Risk Committee defines the Group Risk Policy, reviews risk capacity limits, monitors adherence to risk tolerance, and reviews top risk issues and exposures.
- The Investment Committee reviews the financial risk analysis methodology and valuation related to each asset class, and ensures that the relevant management processes and controlling mechanisms are in place. The Audit Committee oversees internal controls and compliance procedures.

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

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

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

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

The central teams support the dedicated CROs at Group and legal entity level in discharging their oversight responsibilities. They do so by providing services, such as:
- Financial risk management
- Specialised risk category expertise and accumulation control
- Risk modelling and analytics
- Regulatory relations management
- Maintaining the central risk governance framework

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

For the Company and its subsidiaries, the setting of the reserves is performed by valuation actuaries within the P&C and L&H Business Management units. Risk Management activities are complemented by Swiss Re's Group Internal Audit and Compliance units:
- Group Internal Audit performs independent, objective 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 Code of Conduct. It also assists the Group Board of Directors, Executive Committees and other management bodies in identifying, mitigating and managing compliance risks.

Income statement Swiss Reinsurance Company Ltd

For the years ended 31 December

Income statement

CHF millions	Note	2019	2020
Reinsurance			
Premiums written gross		*27 666*	23 953
Premiums written retroceded		*–4 823*	–3 104
Premiums written net		22 843	**20 849**
Change in unearned premiums gross		*–2 075*	664
Change in unearned premiums retroceded		*104*	–1 027
Change in unearned premiums net		–1 971	**–363**
Premiums earned		20 872	**20 486**
Other reinsurance revenues		2 446	**3 946**
Allocated investment return		474	**426**
Total revenues from reinsurance business		23 792	**24 858**
Claims paid and claim adjustment expenses gross		*–11 782*	–18 179
Claims paid and claim adjustment expenses retroceded		*3 966*	2 357
Claims paid and claim adjustment expenses net		–7 816	**–15 822**
Change in unpaid claims gross		*–6 217*	–1 055
Change in unpaid claims retroceded		*469*	–1 083
Change in unpaid claims net		–5 748	**–2 138**
Life and health benefits gross		*–3 647*	24
Life and health benefits retroceded		*511*	1 191
Life and health benefits net		–3 136	**1 215**
Claims and claim adjustment expenses and life and health benefits		–16 700	**–16 745**
Change in equalisation provision		221	**–**
Claims incurred		–16 479	**–16 745**
Acquisition costs gross		*–6 318*	–5 768
Acquisition costs retroceded		*1 151*	964
Acquisition costs net		–5 167	**–4 804**
Operating costs		–933	**–870**
Acquisition and operating costs		–6 100	**–5 674**
Other reinsurance expenses		–2 055	**–865**
Total expenses from reinsurance business		–24 634	**–23 284**
Reinsurance result		–842	**1 574**

CHF millions	Note	2019	2020
Investments	2		
Investment income		5 660	**2 051**
Investment expenses		–270	**–322**
Allocated investment return		–474	**–426**
Investment result		4 916	**1 303**
Other financial income and expenses			
Other financial income		1 580	**3 217**
Other financial expenses		–2 063	**–3 778**
Operating result		3 591	**2 316**
Interest expenses on debt and subordinated liabilities		–419	**–324**
Other income and expenses			
Other income		20	**158**
Other expenses		–390	**–529**
Income before income tax expense		2 802	**1 621**
Income tax expense		–98	**–35**
Net income		2 704	**1 586**

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	2019	2020
Investments			
Investments in subsidiaries and affiliated companies		15 347	**22 864**
Fixed income securities		20 207	**17 493**
Loans		8 418	**8 016**
Mortgages		2	**0**
Equity securities		1 099	**844**
Shares in investment funds		*12 711*	*12 400*
Short-term investments		*3 930*	*7 896*
Alternative investments		*847*	*698*
Other investments		17 488	**20 994**
Total investments		62 561	**70 211**
Financial and reinsurance assets			
Assets in derivative financial instruments	19	946	**1 031**
Funds held by ceding companies		16 273	**14 094**
Cash and cash equivalents		979	**1 095**
Reinsurance recoverable from unpaid claims	3	*6 822*	*5 424*
Reinsurance recoverable from liabilities for life and health policy benefits	3	*6 012*	*6 731*
Reinsurance recoverable from unearned premiums	3	*1 873*	*773*
Reinsurance recoverable from provisions for profit commissions	3	*34*	*63*
Reinsurance recoverable on technical provisions retroceded		14 741	**12 991**
Tangible assets		11	**7**
Deferred acquisition costs	3	2 459	**1 918**
Intangible assets		125	**132**
Premiums and other receivables from reinsurance	3	14 117	**13 706**
Other receivables		426	**464**
Other assets		4 790	**5 384**
Accrued income	17	2 894	**845**
Total financial and reinsurance assets		57 761	**51 667**
Total assets		120 322	**121 878**

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

Liabilities and shareholder's equity

CHF millions	Note	2019	2020
Liabilities			
Technical provisions gross			
Unpaid claims	3	49 994	48 114
Liabilities for life and health policy benefits	3	17 643	16 268
Unearned premiums	3	8 257	6 996
Provisions for profit commissions	3	443	442
Total technical provisions gross		76 337	**71 820**
Non-technical provisions			
Tax provisions		155	71
Provision for currency fluctuation		1 000	1 672
Other provisions		145	186
Total non-technical provisions		1 300	**1 929**
Debt	11	5 033	**3 267**
Liabilities from derivative financial instruments		1 243	**1 348**
Funds held under reinsurance treaties		6 187	**7 631**
Reinsurance balances payable	3	7 191	**9 170**
Other liabilities		6 955	**9 804**
Accrued expenses		140	**120**
Subordinated liabilities	11	4 702	**4 986**
Total liabilities		109 088	**110 075**
Shareholder's equity	4		
Share capital		34	34
Legal reserves from capital contributions		*6 778*	*5 761*
Legal capital reserves		6 778	5 761
Legal profit reserves		650	650
Voluntary profit reserves		1 027	3 727
Retained earnings brought forward		41	45
Net income for the financial year		2 704	1 586
Total shareholder's equity		11 234	**11 803**
Total liabilities and shareholder's equity		120 322	**121 878**

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.

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 2020 financial year comprises the accounting period from 1 January 2020 to 31 December 2020.

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.

The COVID-19 pandemic has created additional uncertainty, both in respect of estimation of claims across the insurance and reinsurance industry and assessments of the wider potential global health and economic impacts. This uncertainty has been compounded by the evolving nature of the pandemic, including the spread of new strains of the virus, and is driven, among other factors, by lack of definitive answers about the impacts of the pandemic and related mitigation efforts on economies and societies across the globe, the efficacy of vaccines and other treatments, and the long-term health and social impacts of the pandemic on populations, as well as by evolving responses of governments and regulators, responses of businesses and outcomes of legal actions that have already been brought or may in the future be brought. The Company has recorded its best estimate of claims and claim adjustment expenses and life and health benefits incurred as a result of the pandemic as at 31 December 2020, which best estimate reflects the Company's expectations based on current facts and circumstances. However, the Company may, as a result of the myriad uncertainties, need to change its estimates for claims incurred and additional future claims over time as underlying facts develop.

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 and tangible assets, which are maintained in Swiss francs at historical exchange rates. Income and expenses in foreign currencies are converted into Swiss francs at average exchange rates for the reporting year.

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

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

Fixed income securities are carried at their amortised cost, less necessary depreciation to address other than temporary market value decreases.

The following assets are carried at cost or lower market value:
- Equity securities
- Shares in investment funds
- Alternative investments

Loans and mortgages are carried at nominal value. Value adjustments are recorded where the expected recovery value is lower than the nominal value. Infrastructure loans are carried at their amortised cost, less necessary depreciation to address other than temporary market value decreases.

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

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

Assets in derivative financial instruments
Assets in derivative financial instruments include reinsurance contract or features embedded in reinsurance contracts that fulfil the characteristics of derivative financial instruments and are generally accounted based on the lower of cost or market principle under Swiss Company Law. Derivative deals where the Company enters into two identical, but opposite directed derivatives are recorded at market value. In addition, assets in derivative financial instruments which have an observable market price and are traded in an active and liquid market are recorded at market value.

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

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

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

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

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

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

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

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

Other assets

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

The operational leases are recorded on-balance-sheet. The lease assets and the lease liabilities for both, financial and operational leases, are carried at cost less corresponding amortisation of the assets and release of the liabilities over the useful life of the lease or rental goods.

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, in accordance with the Company's reserving policy. Under certain circumstances, a prudent allowance for deferred acquisition costs on financing treaties can be established. A loss ratio approach can be taken, mainly for Group business, and for individual risk premium lump sum business, where either information is limited or a gross premium valuation is not possible due to practical constraints.

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

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

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

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

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

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

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

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

Non-technical provisions

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

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

Debt
Debt is held at redemption value.

Liabilities from derivative financial instruments
Derivative deals where the Company enters into two identical, but opposite directed derivatives are recorded at market value. In addition, liabilities in derivative financial instruments which have an observable market price and are traded in an active and liquid market are recorded at market value. All other liabilities from derivative financial instruments are generally maintained at the highest commitment amount per a balance sheet date during the life of the underlying contract. For such derivatives premiums received are generally not realised until expiration or settlement and deferred respectively.

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

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

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

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

Subordinated liabilities
Subordinated liabilities are held at redemption value.

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

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

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

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

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

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

2 Investment result

CHF millions	Income	Value readjustments	Realised gains	2020 Total
Investment income				
Investments in subsidiaries and affiliated companies	79	–	–	79
Fixed income securities	505	–	369	874
Loans	201	–	3	204
Mortgages	0	–	–	0
Equity securities	20	7	103	130
Shares in investment funds	*626*	*8*	*19*	*653*
Short-term investments	*12*	*–*	*6*	*18*
Alternative investments	*59*	*1*	*8*	*68*
Other investments	697	9	33	739
Income from investment services	25	–	–	25
Investment income	**1 527**	**16**	**508**	**2 051**

CHF millions	Expenses	Value adjustments	Realised losses	
Investment expenses				
Investments in subsidiaries and affiliated companies	–	–16	–	–16
Fixed income securities	–	–	–61	–61
Loans	–	–	0	0
Equity securities	–	–31	–92	–123
Shares in investment funds	*–*	*0*	*–*	*0*
Short-term investments	*–*	*–*	*–1*	*–1*
Alternative investments	*–*	*–31*	*0*	*–31*
Other investments	–	–31	–1	–32
Investment management expenses	–90	–	–	–90
Investment expenses	**–90**	**–78**	**–154**	**–322**
Allocated investment return				**–426**
Investment result				**1 303**

CHF millions	Income	Value readjustments	Realised gains	2019 Total
Investment income				
Investments in subsidiaries and affiliated companies	2 657	–	0	2 657
Fixed income securities	568	–	211	779
Loans	303	–	–	303
Mortgages	–	3	–	3
Equity securities	30	32	118	180
Shares in investment funds	*1 524*	12	*25*	*1 561*
Short-term investments	*51*	–	*1*	*52*
Alternative investments	*41*	*6*	*18*	*65*
Other investments	1 616	18	44	1 678
Income from investment services	60	–	–	60
Investment income	5 234	53	373	5 660

CHF millions	Expenses	Value adjustments	Realised losses	
Investment expenses				
Investments in subsidiaries and affiliated companies	–	–83	–	–83
Fixed income securities	–	0	–34	–34
Mortgages	–	0	–	0
Equity securities	–	–16	–4	–20
Shares in investment funds	–	*–9*	*–1*	*–10*
Short-term investments	–	–	*–1*	*–1*
Alternative investments	–	*–14*	*0*	*–14*
Other investments	–	–23	–2	–25
Investment management expenses	–108	–	–	–108
Investment expenses	–108	–122	–40	–270
Allocated investment return				–474
Investment result				4 916

3 Assets and liabilities from reinsurance

CHF millions	Gross	Retro	2019 Net	Gross	Retro	2020 Net
Deferred acquisition costs	3 100	–641	2 459	**2 161**	**–243**	**1 918**
Premiums and other receivables from reinsurance	12 984	1 133	14 117	**12 400**	**1 306**	**13 706**
Deferred expenses on retroactive reinsurance policies[2]	166	–17	149	**176**	**4**	**180**
Unpaid claims	49 994	–6 822[1]	43 172	**48 114**	**–5 424[1]**	**42 690**
Liabilities for life and health policy benefits	17 643	–6 012[1]	11 631	**16 268**	**–6 731[1]**	**9 537[3]**
Unearned premiums	8 257	–1 873[1]	6 384	**6 996**	**–773[1]**	**6 223**
Provisions for profit commissions	443	–34[1]	409	**442**	**–63[1]**	**379**
Reinsurance balances payable	4 854	2 337	7 191	**6 230**	**2 940**	**9 170**

[1] Reported under "Reinsurance recoverable on technical provisions retroceded" on page 108.
[2] Reported under "Other assets" on page 108.
[3] Including a one-off correction of accumulated rider fees since inception related to the guarantees on a variable annuities business treaty, which resulted in a reserve increase of CHF 141 million.

4 Change in shareholder's equity

CHF millions	Share capital	Legal capital reserves	Legal profit reserves	Voluntary profit reserves	Retained earnings brought forward	Net income for the financial year	Total shareholder's equity
Shareholder's equity 1.1.2019	34	6 778	650	1 439	60	1 231	10 192
Allocations relating to the dividend paid				1 250	–19	–1 231	–
Dividend for the financial year 2019				–1 662			–1 662
Net income for the financial year						2 704	2 704
Shareholder's equity 31.12.2019	34	6 778	650	1 027	41	2 704	11 234
Shareholder's equity 1.1.2020	34	6 778	650	1 027	41	2 704	11 234
Allocations relating to the dividend paid		–1 611		4 311	4	–2 704	–
Dividend for the financial year 2020				–1 611			–1 611
Contribution in-kind in 2020[1]		594					594
Net income for the financial year						1 586	1 586
Shareholder's equity 31.12.2020	**34**	**5 761**	**650**	**3 727**	**45**	**1 586**	**11 803**

[1] Contribution in-kind by Swiss Re Ltd of its wholly-owned subsidiary Swiss Re Investments Holding Company Ltd to the Company on 18 December 2020.

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 2020 and 2019, the Company was a fully owned subsidiary of Swiss Re Ltd.

6 Contingent liabilities

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

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

In addition, as a component of the Swiss Re Group's financing structure, the Company has guaranteed CHF 3 462 million (2019: CHF 3 721 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 2020 and 2019, 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	2019	**2020**
Fair value of securities transferred to third parties	18 571	**12 209**
Fair value of securities transferred to affiliated companies	18 843	**11 512**
Total	37 414	**23 721**

8 Security deposits

To secure the technical provisions at the 2020 balance sheet date, securities with a book value of CHF 11 713 million (2019: CHF 13 416 million) were deposited in favour of ceding companies, of which CHF 2 824 million (2019: CHF 4 183 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 2020, total commitments remaining uncalled were CHF 359 million (2019: CHF 588 million).

The Company has entered into subordinated funding facilities with its parent company Swiss Re Ltd under which the Company has the right, among others, to issue subordinated notes to Swiss Re Ltd at any time. For its various rights, the Company owes Swiss Re Ltd an unconditional fixed commitment fee on the total facility amount, payable in annual instalments. Annually, the Company receives a partial reimbursement of the commitment fee on the undrawn facility amount. As of 31 December 2020 and 2019, the facilities were undrawn.

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

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

10 Investments in subsidiaries and affiliated companies

As of 31 December 2020 and 2019, Swiss Reinsurance Company Ltd held the following direct and material indirect investments in subsidiaries and affiliated companies:

As of 31 December 2020	Country	City	% Equity interest	% Voting interest
Swiss Brokers México, Intermediario de Reaseguro, S.A. de C.V.	Mexico	Mexico City	100%	100%
Swiss Re Brasil Resseguros S.A.	Brazil	São Paulo	99%	99%
Swiss Re Investments Holding Company Ltd	Switzerland	Zurich	100%	100%
Swiss Re Investments Company Ltd	Switzerland	Zurich	100%	100%
Swiss Re Investments Ltd	Switzerland	Zurich	100%	100%
Swiss Re Africa Limited	South Africa	Cape Town	100%	100%
Swiss Re Mexico Servicios, S. de R.L. de C.V.	Mexico	Mexico City	98%	98%
Swiss Re Reinsurance Holding Company Ltd	Switzerland	Zurich	100%	100%
Swiss Pillar Investments Ltd	Switzerland	Zurich	100%	100%
Swiss Re America Holding Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Capital Markets Corporation	United States (USA)	New York	77%	77%
Swiss Re Financial Markets Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Financial Products Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Life & Health America Holding Company	United States (USA)	Wilmington	100%	100%
Swiss Re Treasury (US) Corporation	United States (USA)	Wilmington	100%	100%
Swiss Reinsurance America Corporation	United States (USA)	Armonk	100%	100%
Swiss Re Asia Holding Pte. Ltd.	Singapore	Singapore	100%	100%
Swiss Re Asia Pte. Ltd.	Singapore	Singapore	100%	100%
Swiss Re Australia Ltd	Australia	Sydney	100%	100%
Swiss Re Life & Health Australia Limited	Australia	Sydney	100%	100%
Swiss Re Capital Markets Corporation	United States (USA)	New York	23%	23%
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	100%	100%
Swiss Re Finance (Luxembourg) S.A.	Luxembourg	Luxembourg	100%	100%
Swiss Re Services Limited	United Kingdom (UK)	London	100%	100%
Swiss Re Nexus Reinsurance Company Ltd	Switzerland	Zurich	100%	100%
Swiss Re Services India Private Ltd	India	Mumbai	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	100%	100%
Vietnam National Reinsurance Corporation	Vietnam	Hanoi	25%	25%

As of 31 December 2019	Country	City	% Equity interest	% Voting interest
European Finance Reinsurance Company Ltd	Barbados	Bridgetown	100%	100%
Gasper Funding Corporation	Barbados	Bridgetown	100%	100%
Swiss Brokers México, Intermediario de Reaseguro, S.A. de C.V.	Mexico	Mexico City	100%	100%
Swiss Re Brasil Resseguros S.A.	Brazil	São Paulo	99%	99%
Swiss Re Investments Ltd	Switzerland	Zurich	100%	100%
Swiss Re Africa Limited	South Africa	Cape Town	100%	100%
Swiss Re Mexico Servicios, S. de R.L. de C.V.	Mexico	Mexico City	98%	98%
Swiss Re Reinsurance Holding Company Ltd	Switzerland	Zurich	100%	100%
Swiss Pillar Investments Ltd	Switzerland	Zurich	100%	100%
Swiss Re America Holding Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Capital Markets Corporation	United States (USA)	New York	77%	77%
Swiss Re Financial Markets Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Financial Products Corporation	United States (USA)	Wilmington	100%	100%
Swiss Re Life & Health America Holding Company	United States (USA)	Wilmington	100%	100%
Swiss Re Treasury (US) Corporation	United States (USA)	Wilmington	100%	100%
Swiss Reinsurance America Corporation	United States (USA)	Armonk	100%	100%
Swiss Re Asia Holding Pte. Ltd.	Singapore	Singapore	100%	100%
Swiss Re Asia Pte. Ltd.	Singapore	Singapore	100%	100%
Swiss Re Australia Ltd	Australia	Sydney	100%	100%
Swiss Re Life & Health Australia Limited	Australia	Sydney	100%	100%
Swiss Re Capital Markets Corporation	United States (USA)	New York	23%	23%
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	6%	6%
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	100%	100%
Vietnam National Reinsurance Corporation	Vietnam	Hanoi	25%	25%

11 Debt and subordinated liabilities

The Company had outstanding debt and subordinated liabilities at the 2020 balance sheet date of CHF 8 253 million (2019: CHF 9 735 million). Thereof CHF 5 497 million (2019: CHF 6 886 million) were due within one to five years and CHF 2 756 million (2019: CHF 2 849 million) were due after five years.

As of 31 December 2020, 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	EUR	500	6.625%	2022	540
Senior bond	2014	CHF	250	1.000%	2024	250
Subordinated bond[1]	2014	USD	500	4.500%	2024	442
Subordinated bond	2015	EUR	750	2.600%	2025	811
Senior bond	2015	CHF	250	0.750%	2027	250

[1] In light of the reorganisation of the Swiss Re Group's legal entity structure in 2021, Swiss Re Corporate Solutions Ltd transferred the USD 500 million subordinated fixed rate resettable callable loan to the Company on 15 December 2020. This transfer of the collateral notes was approved by the noteholders by an extraordinary resolution on the 26 November 2020.

12 Deposit arrangements

The following balances were related to deposit accounted reinsurance contracts:

CHF millions	2019	2020
Other reinsurance revenues	21	**28**
Claims paid and claim adjustment expenses gross	11	**12**
Claims paid and claim adjustment expenses retroceded	2	**6**
Operating costs	–1	**–1**
Other reinsurance expenses	–8	**–8**
Funds held by ceding companies	30	**64**
Premiums and other receivables from reinsurance	874	**1 826**
Reinsurance balances payable	2 455	**3 810**

13 Claims on and obligations towards affiliated companies

CHF millions	2019	2020
Loans	7 874	**7 388**
Funds held by ceding companies	8 939	**7 848**
Premiums and other receivables from reinsurance	8 080	**8 396**
Other receivables	201	**319**
Other assets	2 375[1]	**1 982**[1]
Debt	4 533[2]	**2 767**[2]
Liabilities from derivative financial instruments	93	**125**
Funds held under reinsurance treaties	6 017	**7 399**
Reinsurance balances payable	6 070	**7 363**
Other liabilities	5 453[3]	**8 195**[3]
Subordinated liabilities	3 169[4]	**3 193**[4]

[1] Thereof at the 2020 balance sheet date CHF 123 million (2019: CHF 84 million) were on the parent company Swiss Re Ltd.
[2] Thereof at the 2020 balance sheet date CHF 2 018 million (2019: CHF 2 160 million) were towards the parent company Swiss Re Ltd.
[3] Thereof at the 2020 balance sheet date CHF 2 405 million (2019: CHF 538 million) were towards the parent company Swiss Re Ltd.
[4] Thereof at the 2020 balance sheet date CHF 380 million (2019: CHF 416 million) were towards the parent company Swiss Re Ltd.

14 Release of undisclosed reserves

In 2020, no net release of undisclosed reserves (2019: no net release).

15 Obligations towards employee pension fund

As of 31 December 2020, other liabilities included CHF 0 million (2019: CHF 0 million) payable to the employee pension fund.

16 Personnel information

As of 31 December 2020, the Company employed a worldwide staff at an average of 1 444 (2019: 1 712) full time equivalents. Personnel expenses for the 2020 financial year amounted to CHF 243 million (2019: CHF 391 million).

17 Accrued income from subsidiaries and affiliated companies

The 2019 accrued income mainly consisted of the dividend income of CHF 2 615 million from Swiss Re Reinsurance Holding Company Ltd in accordance with the resolution of the shareholder's Annual General Meeting of 9 March 2020. Based on the economic view this dividend, paid by the subsidiary in 2020, was already recorded in the 2019 Company's financial statements.

18 Auditor's fees

In 2020, the Swiss Re Group incurred total auditor's fees of CHF 29 million (2019: CHF 31 million) and additional fees of CHF 3 million (2019: CHF 12 million), of which CHF 2 million (2019: CHF 3 million) and CHF 0 million (2019: CHF 0 million), respectively, incurred for the Company.

19 Market value of assets in derivative financial instruments

As of 31 December 2020, the Company's book value of assets in derivative financial instruments, which are measured at market value, was CHF 1 031 million (2019: CHF 946 million).

Proposal for allocation of disposable profit

The Board of Directors proposes to the Annual General Meeting of the Company, to be held on 25 March 2021, to approve the following allocations and payment of a cash dividend of USD 500 million, which must not exceed CHF 490 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 29 March 2021.

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 490 million, which shall be fully funded from the legal reserves from capital contributions as presented in the tables below.

As such the effective allocation from the legal reserves from capital contributions to the voluntary profit reserves and the effective cash dividend amount, translated into CHF at spot rate on the settlement date, must not exceed CHF 490 million. This threshold of CHF 490 million is presented in the below tables and reflects the maximum amount in CHF to be allocated and paid.

Retained earnings

CHF millions	2019	2020
Retained earnings brought forward	41	**45**
Net income for the financial year	2 704	**1 586**
Disposable profit	2 745	**1 631**
Proposed allocation to voluntary profit reserves	–2 700	**–1 600**
Retained earnings after proposed allocation	45	**31**

Legal reserves from capital contributions

CHF millions	2019	2020
Legal reserves from capital contributions brought forward	6 778	**5 167**
Contribution in-kind in 2020[2]	–	**594**
Legal reserves from capital contributions before proposed allocation to voluntary profit reserves	6 778	**5 761**
Proposed allocation to voluntary profit reserves in connection with the cash dividend	–1 780[1]	**–490**[1]
Legal reserves from capital contributions after proposed allocation to voluntary profit reserves	4 998	**5 271**

[1] The translation into CHF at spot rate on the settlement date may result in a lower allocation to voluntary profit reserves by a respective amount on the settlement date.
[2] Contribution in-kind by Swiss Re Ltd of its wholly-owned subsidiary Swiss Re Investments Holding Company Ltd to the Company on 18 December 2020.

Voluntary profit reserves

CHF millions	2019	2020
Voluntary profit reserves brought forward	1 027	**3 727**
Proposed allocation from retained earnings	2 700	**1 600**
Voluntary profit reserves before proposed allocation from legal reserves from capital contributions and cash dividend	3 727	**5 327**
Proposed allocation from legal reserves from capital contributions	1 780[1]	**490**[2]
Proposed cash dividend (maximal amount in CHF of the proposed dividend in USD translated into CHF)	–1 780[1]	**–490**[2]
Voluntary profit reserves after proposed allocation from legal reserves from capital contributions and cash dividend	3 727	**5 327**

[1] The 2019 figure was recalculated based on the final cash dividend converted into CHF at spot rate on the settlement date.
[2] The translation into CHF at spot rate on the settlement date may result in a lower allocation from legal reserves from capital contributions and a lower cash dividend by a respective amount on the settlement date.

Zurich, 17 March 2021

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 accompanying financial statements of Swiss Reinsurance Company Ltd (the 'Company'), which comprise the income statement, balance sheet and notes (pages 106 to 121), for the year ended 31 December 2020.

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 judgment, 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 of the Company for the year ended 31 December 2020 comply with Swiss law and the Company's Articles of Association.

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

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

Unobservable or interpolated inputs used for the valuation of certain investments

Key audit matter	How our audit addressed the key audit matter
Investments are generally valued at lower of cost or market value (prudence principle). In addition to the lower of cost or market value, amortised cost must also be considered for fixed income securities, which is in accordance with the Insurance Supervision Ordinance. Accordingly, market values have to be observed to assess the appropriate application of the prudence principle. Investment valuation continues to be an area with inherent risk for certain investments that have unobservable or interpolated inputs. The risk is not the same for all investment types and is greatest for those listed below. These investments are more difficult to value because quoted prices are not always available, and valuation requires complex valuation models: • Fixed income securitised products • Fixed income mortgage and asset-backed securities • Private placements • Private equity investments • Derivatives • Insurance-related financial products	We assessed and tested the design and operating effectiveness of selected relevant controls around the valuation models for investments, including the Company's independent price verification process. We also tested the Company's data integrity and change management controls relating to the valuation models. In relation to the matters set out opposite, our substantive testing procedures included the following: • Challenging the Company's methodology and assumptions, in particular, the yield curves, discounted cash flows, perpetual growth rates and liquidity premiums used in the valuation models; comparing these assumptions against appropriate benchmarks; and investigating significant differences. • Engaging our own valuation specialists to perform independent valuations of selected investments. Based on the work performed, we determined the Company's conclusion with regards to the valuation of those investments to be reasonable.

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

Key audit matter	How our audit addressed the key audit matter
The valuation of P&C loss reserves within the unpaid claims financial statement line item involves a high degree of subjectivity and complexity. Reserves for losses and loss adjustment expenses represent estimates of future payments of reported and unreported claims for losses and related expenses at a given date. The Company uses a range of actuarial methodologies and methods to estimate these reserves. P&C loss reserves require significant judgment relating to certain factors and assumptions. Among the most significant reserving assumptions are the a-priori loss ratios, which typically drive the estimates of P&C loss reserves for the most recent contract years. Other key factors and assumptions include but are not limited to changes in exposure and business mix as well as inflation trends, claim emergence trends and legal or regulatory decisions. In particular, loss reserves for 'long tail' lines of business (for example, Liability, US Asbestos and Environmental, Motor and Workers' Compensation portfolios) generally require more judgment to estimate. This is due to the protracted period over which claims may be reported and/or settled as well as the fact that claim settlements are often less frequent but of higher magnitude. Moreover, losses from natural catastrophe, significant man-made and COVID-19 pandemic events cannot be modelled using traditional actuarial methodologies or available proprietary models, which increases the degree of judgment needed in establishing reserves for these events. The ongoing nature of the COVID-19 pandemic and additional complexity because of unresolved contract coverage issues, notably on property lines, required particular focus and judgment by management.	We assessed and tested the design and operating effectiveness of selected relevant controls relating to the application of the actuarial methodology, data collection and analysis, as well as the processes for determining the assumptions used by the Company in the valuation of P&C loss reserves. In relation to the matters set out opposite, our substantive testing procedures included involving our PwC internal actuarial specialists, as appropriate, to perform the following: • Testing the completeness and accuracy of underlying data utilised by the Company's actuaries in estimating P&C loss reserves; this includes applying IT audit techniques to validate the claims triangles used by management to develop reserving estimates. • Performing independent projections of selected portfolios. For these portfolios, we compared our calculations of projected reserves with those of the Company taking into account the available corroborating and contrary evidence and challenging the Company's assumptions as appropriate. • Testing the reasonableness of the methodology and assumptions for further selected portfolios by comparing the methodologies and assumptions adopted by the Company with recognised actuarial practices and by applying our industry knowledge and experience. • Assessing the process and related judgments of the Company 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. • Challenging the process followed and related judgments of the Company in relation to COVID-19 pandemic losses to assess the reasonableness of loss estimates. • Where there was significant estimation uncertainty, performing sensitivity tests to determine the impact of selected key assumptions. • Evaluating the appropriateness of any significant adjustments made by the Company to P&C loss reserve estimates. Based on the work performed, we determined the Company's conclusions with regard to the valuation of P&C loss reserves to be reasonable.

Valuation of actuarially determined liabilities for Life & Health ('L&H') policy benefits

Key audit matter	How our audit addressed the key audit matter
The Company's valuation of actuarially determined liabilities for L&H policy benefits involves complex judgments about future events affecting the business. Actuarial assumptions selected by the Company, including mortality, morbidity, longevity, and persistency, may result in material impacts on the valuation of liabilities for L&H policy benefits. The methodology and methods used can also have a material impact on the valuation of actuarially determined liabilities for L&H policy benefits. In addition, the impact of the COVID-19 pandemic required additional management judgment, particularly over shorter-term mortality assumptions. The valuation of actuarially determined liabilities for L&H policy benefits 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, the Company 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 liabilities for L&H policy benefits need to be assessed in terms of appropriateness and classified as a change in estimate or as an out-of-period adjustment. Furthermore, on a regular basis, the Company enters into large and/or structured transactions which often have material or complex financial reporting and reserving consequences. The reserving for such transactions is subject to increased risk of error due to the non-routine nature of transactions and the judgmental nature of reserving.	We assessed and tested the design and operating effectiveness of selected relevant controls relating to the application of actuarial methodology, data collection and analysis, as well as the processes for determining the assumptions used by the Company in the valuation of actuarially determined liabilities for L&H policy benefits. In relation to the matters set out opposite, our substantive testing procedures included involving our PwC internal actuarial specialists, as appropriate, to perform the following, which are applicable for the valuation of both standard and large and/or structured transactions: • 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. • Testing 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. • Testing the reasonableness of L&H assumptions by applying our industry knowledge and experience to check whether the assumptions are consistent with recognised actuarial practices and industry trends • Challenging the process followed and related judgments of the Company in relation to COVID-19 pandemic losses to assess the reasonableness of loss estimates. • Evaluating the appropriateness of the recognition, accounting, valuation, and disclosures for large and/or structured transactions. Based on the work performed, we determined the Company's conclusions with regard to the valuation of actuarially determined Liabilities for L&H policy benefits to be reasonable.

Impairment assessment of investments in subsidiaries and affiliated companies

Key audit matter	How our audit addressed the key audit matter
The Company applies a group valuation approach when a close business link exists and a similarity in nature is given in accordance with Swiss law. The impairment assessment of investments in subsidiaries and affiliated companies is based on the selected valuation method that reflects specific characteristics of investment and corresponding assumptions as model inputs. The impairment assessment is considered a key audit matter due to the considerable judgment in the assumptions and adjustments applied to the valuation method.	In relation to the matter set out opposite, our substantive testing procedures included the following: • Assessing whether the group valuation approach is appropriate. • Evaluating the method used by the Company to determine a market value. • Assessing whether the assumptions used are reasonable. • Understanding changes in the approach and discussing them with the Company to ensure they are in accordance with our own expectations based on our knowledge of the business and industry. Based on the work performed, we consider the method and assumptions used by the Company to assess recoverability of investments in subsidiaries and affiliated companies to be reasonable.

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 (page 122) complies with Swiss law and the Company's Articles of Association. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers Ltd

Roy Clark

Audit expert
Auditor in charge

Michael Stämpfli

Audit expert

Zurich, 17 March 2021

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:

- the frequency, severity and development of insured claim events, particularly natural catastrophes, man-made disasters, pandemics, acts of terrorism or acts of war;
- mortality, morbidity and longevity experience;
- the cyclicality of the reinsurance sector;
- central bank intervention in the financial markets, trade wars or other protectionist measures relating to international trade arrangements, adverse geopolitical events, domestic political upheavals or other developments that adversely impact global economic conditions;
- increased volatility of, and/or disruption in, global capital and credit markets;
- 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 Group's inability to realize amounts on sales of securities on the Group's balance sheet equivalent to their values recorded for accounting purposes;
- the Group's inability to generate sufficient investment income from its investment portfolio, including as a result of fluctuations in the equity and fixed income markets, the composition of the investment portfolio or otherwise;
- changes in legislation and regulation, or the interpretations thereof by regulators and courts, affecting the Group or its ceding companies, including as a result of comprehensive reform or shifts away from multilateral approaches to regulation of global operations;
- the lowering or loss of one of the financial strength or other ratings of one or more companies in the Group, and developments adversely affecting its ability to achieve improved ratings;
- uncertainties in estimating reserves, including differences between actual claims experience and underwriting and reserving assumptions;
- policy renewal and lapse rates;
- uncertainties in estimating future claims for purposes of financial reporting, particularly with respect to large natural catastrophes and certain large man-made losses, 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;
- legal actions or regulatory investigations or actions, including in respect of industry requirements or business conduct rules of general applicability;

- the outcome of tax audits, the ability to realize tax loss carryforwards and the ability to realize 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, and the overall impact of changes in tax regimes on the Group's business model;
- changes in accounting estimates or assumptions that affect reported amounts of assets, liabilities, revenues or expenses, including contingent assets and liabilities;
- changes in accounting standards, practices or policies;
- strengthening or weakening of foreign currencies;
- reforms of, or other potential changes to, benchmark reference rates;
- failure of the Group's hedging arrangements to be effective;
- significant investments, acquisitions or dispositions, and any delays, unforeseen liabilities or other costs, lower-than-expected benefits, impairments, ratings action or other issues experienced in connection with any such transactions;
- extraordinary events affecting the Group's clients and other counterparties, such as bankruptcies, liquidations and other credit-related events;
- changing levels of competition;
- the effects of business disruption due to terrorist attacks, cyberattacks, natural catastrophes, public health emergencies, hostilities or other events;
- limitations on the ability of the Group's subsidiaries to pay dividends or make other distributions; and
- operational factors, including the efficacy of risk management and other internal procedures in anticipating and managing the foregoing risks.

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

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

Note on risk factors

The operations, investments and other activities of Swiss Reinsurance Company Ltd and its subsidiaries (collectively, the "Group") are subject to a range of risks that could adversely impact the Group's business, financial condition, results of operations, liquidity and cash flows. The Group is part of the broader Swiss Re group (collectively, "Swiss Re"), the holding company for which is Swiss Re Ltd. References to the Group give effect to the legal entity realignment of Swiss Re.

Coronavirus

The global spread of the novel coronavirus and the disease it causes ("COVID-19"), and the actions taken to slow the spread of the pandemic, have had an adverse impact on communities, social and business interactions, economic activity and economies across the globe. After significant contractions in 2020, the global economy is expected to experience a protracted and uneven recovery in 2021. The impact of the pandemic on recovery of individual economies will be affected by their respective capacities to absorb shocks and the fiscal responses of their governments, and more broadly by continuing uncertainties over the impact of new strains of the virus and the effectiveness of vaccines against new strains, the timeline for the rollout of vaccination programs, the duration of immunity and resulting restrictions on mobility. Despite the impact of the pandemic on the global economy, the global insurance markets (as measured by premium growth) were less severely impacted in 2020 than expected (although the life market was more adversely affected than the non-life market) and premium growth is expected to recover, alongside recovery of the global economy, in 2021 and 2022, supported by rate hardening. Growth is expected to be led by China and, to a lesser extent, by other markets in Asia, aided in the case of life business by greater awareness of the importance post-pandemic of mortality and health coverage, as well as digital insurance penetration.

For the Group, in Property & Casualty Reinsurance, the COVID-19 crisis (in particular the impact on businesses and business activity) had the greatest impact on event cancellation, non-damage business interruption covers, and credit and surety. In Life & Health Reinsurance, the COVID-19 crisis had the greatest impact on mortality exposures. The majority of losses were incurred in the second and fourth quarters, largely driven by business closings and excess mortality, and reported 2020 losses continue to reflect high levels of incurred but not reported (IBNR) reserves.

The COVID-19 crisis prompted regulatory actions, including regulatory guidance in a number of US states in respect of temporary policyholder leniency, and legislative proposals in respect of policy exclusions and retroactive business interruption coverage. Legal challenges have been brought in a variety of jurisdictions, including, most notably, test cases brought in the United Kingdom by the Financial Conduct Authority, in respect of which the UK Supreme Court largely found on appeal, by the insurance company parties, in favour of holders of business interruption insurance policies, and in Australia, where a Court of Appeal also found in favour of policyholders. Legal actions on a range of pandemic-related claims are likely to continue in a number of jurisdictions.

The COVID-19 crisis continues, and the ultimate toll of the pandemic in terms of lives lost, societal dislocations, business activity, economic growth, broader costs to society and industry losses remains highly uncertain. Many pandemic-related developments interact with long-term trends and outlooks, including the impact of persistent low yields on the insurance industry. It also remains to be seen how public-private partnership initiatives may evolve to address future pandemics.

General impact of adverse market conditions

Swiss Re's operations as well as its investment returns are subject to conditions in the financial markets and macroeconomic factors, which are outside of its control. Financial, credit and foreign exchange markets are experiencing continued periods of volatility reflecting a range of political, geopolitical, economic and other uncertainties, some of the more significant of which are inter-related. 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 insurance and reinsurance. Any of the foregoing factors, developments and trends could have an adverse effect on the Group's investment results, which in the current extremely low interest rate environment 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, which continues to change over time. The regulatory regimes to which members of the Group are subject have changed significantly in recent years and are expected to continue to evolve. 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 group supervision and Swiss Re's subsidiaries are also 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. The Group and its Swiss regulated entities and branches are subject to the Swiss Solvency Test and, through its legal entities and branches organised in the European Economic Area ("EEA") and the United Kingdom, Solvency II (which going forward as between the EEA and the UK could diverge).

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

On the international level, certain large insurance companies were designated as global systemically important insurers ("G-SIIs") and reinsurance companies faced potential designation as G-SIIs. While further designations have been suspended until 2022, the determination to discontinue G-SII designations altogether will only be made in 2022, based on an assessment of progress made by the International Association of Insurance Supervisors ("IAIS"), in establishing a new holistic framework for systemic risk that was adopted in November 2019 and implemented as of the beginning of 2020. The new framework embraces an enhanced set of policy measures targeted at the exposures and activities that can lead to systemic risks from the insurance sector as a whole. The Group cannot predict what additional regulatory changes will be implemented as the IAIS systemic risk process evolves and what any such changes may mean for how the Group is structured in any particular jurisdiction and how aspects of its business may be affected. Moreover, the Group cannot predict whether the Financial Stability Board will endorse the new IAIS holistic framework or retain the existing G-SII approach, or what regulatory changes may apply in the future to ceding companies in the context of broader designations of reinsurers as systemically important.

In addition, large internationally active insurance groups ("IAIGs"), which is a designation compiled by the IAIS as identified by group-wide supervisors, may become subject to a risk-based group-wide global insurance capital standard ("ICS"). ICS Version 2.0 was adopted in November 2019, and is expected to take effect in 2025, following a five-year confidential reporting period during which no supervisory action will be taken on the basis of the monitoring. In November 2019, the IAIS also adopted the Common Framework for the Supervision of Internationally Active Insurance Groups ("ComFrame"), as well as some changes to a number of Insurance Core Principles ("ICPs") – guidance and standards on supervision of insurers and which apply to insurance companies regardless of size and international exposures. ComFrame strengthens ICP requirements for IAIGs and proposes that the group-wide supervisor, in consultation with the host supervisors, should exercise discretion in requiring IAIGs to submit resolution plans. Swiss Re expects that it will be classified as an IAIG.

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. Notwithstanding the departure of the United Kingdom from the EU single market and customs union, continued uncertainty regarding the ways in which the future relationship between the United Kingdom and the European Union will evolve could also impact the legislative and/or regulatory regimes to which the Group is subject (including Solvency II), both in the United Kingdom and in the European Union.

Regulatory changes also could occur in areas of broader application, such as competition policy and tax laws. For example, changes in tax laws, or the interpretation of the tax laws or tax regulations in jurisdictions in which the Group does business, or withdrawals of tax rulings in jurisdictions such as Switzerland that have issued such rulings to Swiss Re, could increase the taxes the Group pays, or impact the attractiveness of products offered by the Group, the Group's investment activities or the value of deferred tax assets. These changes, or inconsistencies between the various regimes that apply to the Group, could increase the costs of doing business (including due to increased capital requirements), reduce access to liquidity, limit the scope of current or future business or affect the competitive balance, or could make reinsurance less attractive to primary insurers.

Market risk

Volatility and disruption in the global financial markets could expose the Group to significant financial and capital markets risk, including changes in interest rates, credit spreads, equity prices and foreign currency exchange rates, which may adversely impact the Group's financial condition, results of operations, liquidity and capital position. The Group's exposure to interest rate risk is primarily related to the market price and cash flow variability associated with changes in interest rates. In general, low interest rates continue to pose significant challenges to the insurance and reinsurance industries, with earnings capacity under stress unless lower investment returns can be offset by lower combined ratios or higher returns from other asset classes, which in a soft market cycle is a challenge. 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 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 contracts, are wholly or partially exposed, directly and/or indirectly, to market fluctuations, including equity prices. 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, certain risks cannot be hedged, including actuarial, basis and correlation risks. Exposure to foreign exchange risk arises from changes in spot prices, forward prices and volatilities of currency 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 a possible mismatch between investments and liability benchmarks – 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 to deteriorate, 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. 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. The Group is also subject to credit and other risks in its credit business, including reliance on banks that underwrite and monitor facilities in which the Group participates and potential default by borrowers under those facilities.

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, among other things, its obligations arising in its insurance and reinsurance businesses (including claims and other payments as well as insurance provision repayments due to portfolio transfers, securitisations and commutations), which may include large and unpredictable claims (including catastrophe claims), funding of capital requirements and operating costs, payment of principal and interest on outstanding indebtedness and funding of acquisitions. The Group also has unfunded capital commitments in its private equity and hedge fund investments, which could result in funding obligations at a time when it is subject to liquidity constraints. In addition, the Group has potential collateral requirements in connection with a number of reinsurance arrangements, the amounts of which may be material and the meeting of which could require the Group to liquidate cash equivalents or other securities.

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

Unexpected liquidity needs (including to meet collateral calls) could require the Group to increase levels of indebtedness or to liquidate investments or other assets. Should the Group require liquidity at a time when access to bank funding and the capital markets is limited, it may be unable to secure new sources of funding. The Group's ability to meet liquidity needs through asset sales may be constrained by market conditions and the related stress on valuations. In addition, the Group's ability to meet liquidity needs through the incurrence of debt may be limited by constraints on the general availability of credit in the case of bank funding, and adverse market conditions, in the case of capital markets debt. Failure to meet covenants in lending arrangements could further constrain access to liquidity. 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 are otherwise not tradeable. Finally, any adverse ratings action against the Group could trigger a need for further liquidity (for example, by triggering termination provisions or margin calls/collateral delivery requirements in contracts to which Swiss Re is a party) at a time when the Group's ability to obtain liquidity from external sources is limited by such ratings action. See also "Risks relating to credit rating downgrades."

Counterparty risks

The Group is exposed to the risk of defaults, or concerns about defaults, by its counterparties. Issuers or borrowers whose securities or loans the Group holds, trading counterparties, counterparties under swaps and other derivative contracts, clearing agents, clearing houses and other financial intermediaries may default on their obligations to the Group due to bankruptcy, insolvency, lack of liquidity, adverse economic conditions, operations failure, fraud or other reasons, which could also have a material adverse effect on the Group. The Group has increased its allocation to higher return-generating strategies, including high-quality corporate debt and some alternative assets, which tend to also be subject to potentially greater counterparty risk.

The Group could also be adversely affected by the insolvency of, or other credit constraints affecting, counterparties in its insurance and 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, such as Swiss Re. 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 solicited or unsolicited and 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 the Group's ratings could be downgraded or withdrawn in the future. In addition, unsolicited ratings may also be downgraded or withdrawn, such as a downgrade in April 2020 of unsolicited insurer financial strength and long-term issuer default ratings assigned to various entities within the Group. Rating agencies may increase the frequency and scope of ratings reviews, revise their criteria or take other actions that may negatively impact the Group's ratings and/or the ratings of its legal entities, which it cannot predict. In addition, changes to the process or methodology of issuing ratings, or the occurrence of events or developments affecting the Group, could adversely affect the Group's existing ratings or 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 Swiss Re's ratings and/or the ratings of its key rated legal entities 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 and derivative contracts may contain terms that would allow the ceding companies or counterparties to terminate the contract if the Group's ratings or those of its subsidiaries are downgraded beyond a certain threshold. Furthermore, ratings directly impact the availability and terms of unsecured financing (potentially impacting the Group's ability to rollover existing facilities or obtain new facilities) and declines in the Group's ratings or the ratings of legal entities within the Group could also obligate the Group to provide collateral or other guarantees in the course of its business or trigger early termination of funding arrangements, potentially resulting in a need for additional liquidity. As a ratings decline could also have a material adverse impact on the Group's costs of borrowing or ability to access the capital markets, the adverse implications of a downgrade could be more severe. These same factors could also impact the Group's insurance business.

Legal and regulatory risks

In the ordinary course of business, the Group is involved in lawsuits, arbitrations and other formal and informal dispute resolution procedures, the outcomes of which determine the Group's rights and obligations under insurance, reinsurance or 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 could in the future be involved in investigations and regulatory proceedings, which could result in adverse judgments, settlements, fines and other outcomes. These investigations and proceedings could relate to insurance or reinsurance matters, or could involve 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 litigation or enforcement actions arising from potential employee misconduct, including non-compliance with internal policies and procedures, negligence 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 natural catastrophes, such as hurricanes, cyclones, tornadoes, windstorms, hail storms, wildfires, floods and earthquakes, as well as extreme space weather events such as solar storms and geomagnetic activity, and man-made disasters, such as acts of terrorism, cyberattacks and other disasters such as explosions, industrial accidents and fires, as well as pandemics) are inherently unpredictable in terms of both their frequency and severity and have exposed, and may continue to expose, the Group to unexpected large losses (and related uncertainties in estimating future claims in respect of such events); changes in the insurance industry that affect ceding companies, particularly those that further increase their sensitivity to counterparty risk; competitive conditions (including as a result of consolidation and the availability of significant levels of alternative capacity); cyclicality of the industry; risks related to emerging claims and coverage issues (including, in particular, social inflation), which trends may potentially be exacerbated by the COVID-19 crisis; macro developments giving rise to emerging risks, such as climate change and technological developments (including greater exposure to cyber risks (where accumulation risk is yet to be fully understood), which could have a range of consequences from operational disruption, to loss of proprietary or customer data, to greater regulatory burdens and potential liability); risks arising from the Group's dependence on policies, procedures and expertise of ceding companies; risks related to investments in emerging markets; and risks related to the failure of, or attacks directed at, the Group's operational systems and infrastructure, including its information technology networks and systems. Any of the foregoing, as well as the occurrence of future risks that the Group's risk management procedures fail to identify or anticipate, could have a material adverse effect on the Group, and could also give rise to reputational risk.

Use of models; accounting matters

The Group is subject to risks relating to the preparation of estimates and assumptions that its 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 (such as assumptions related to the Group's capital requirements and anticipated liabilities), 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 (and could be adversely affected if premiums turn out to be lower, while claims stay the same). 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 (in the case of accounting judgments), 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 financial 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 a substitute 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.

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