

# Financial Statements

Group financial statements	198	Notes to the	
Income statement	198	Group financial statements	206
Statement of comprehensive income	199	Note 1 Organisation and summary of accounting policies	206
Balance sheet	200	Note 2 Information on business segments	215
Statement of shareholders' equity	202	Note 3 Insurance information	227
Statement of cash flows	204	Note 4 Premiums written	231
		Note 5 Unpaid claims and claim adjustment expenses	232
		Note 6 Deferred acquisition costs (DAC) and acquired present value of future profits (PVFP)	247
		Note 7 Investments	248
		Note 8 Fair value disclosures	256
		Note 9 Derivative financial instruments	266
		Note 10 Disposals	270
		Note 11 Assets held for sale	271
		Note 12 Debt and contingent capital instruments	272
		Note 13 Leases	275
		Note 14 Earnings per share	276
		Note 15 Income taxes	277
		Note 16 Benefit plans	281
		Note 17 Share-based payments	287
		Note 18 Compensation, participations and loans of members of governing bodies	290
		Note 19 Related parties	291
		Note 20 Commitments and contingent liabilities	292
		Note 21 Significant subsidiaries and equity investees	293
		Note 22 Variable interest entities	296
		Note 23 Subsequent events	300
		Report of the statutory auditor	302
		Group financial years 2012–2021	310

# Income statement

## For the years ended 31 December

USD millions	Note	2020	2021
<b>Revenues</b>			
Gross premiums written	4	42 951	<b>46 658</b>
Net premiums written	4	39 827	<b>43 220</b>
Change in unearned premiums		494	<b>-753</b>
<b>Premiums earned</b>	3	40 321	<b>42 467</b>
Fee income from policyholders	3	449	<b>259</b>
Net investment income – non-participating business <sup>1</sup>	7	2 988	<b>3 373</b>
Net realised investment gains/losses – non-participating business <sup>2</sup>	7	1 730	<b>537</b>
Net investment result – unit-linked and with-profit business	7	-2 187	<b>63</b>
Other revenues		37	<b>40</b>
<b>Total revenues</b>		43 338	<b>46 739</b>
<b>Expenses</b>			
Claims and claim adjustment expenses	3	-19 838	<b>-17 181</b>
Life and health benefits	3	-13 929	<b>-14 992</b>
Return credited to policyholders		1 760	<b>-431</b>
Acquisition costs	3	-8 236	<b>-8 228</b>
Operating expenses		-3 597	<b>-3 505</b>
<b>Total expenses before interest expenses</b>		-43 840	<b>-44 337</b>
<b>Income/loss before interest and income tax expense/benefit</b>		-502	<b>2 402</b>
Interest expenses		-588	<b>-571</b>
<b>Income/loss before income tax expense/benefit</b>		-1 090	<b>1 831</b>
Income tax expense/benefit	15	266	<b>-394</b>
<b>Net income/loss before attribution of non-controlling interests</b>		-824	<b>1 437</b>
Income/loss attributable to non-controlling interests		-54	
<b>Net income/loss attributable to common shareholders</b>		-878	<b>1 437</b>
<b>Earnings per share in USD</b>			
Basic	14	-3.04	<b>4.97</b>
Diluted	14	-3.04	<b>4.78</b>
<b>Earnings per share in CHF<sup>3</sup></b>			
Basic	14	-2.97	<b>4.52</b>
Diluted	14	-2.97	<b>4.35</b>

<sup>1</sup> Total impairments for the years ended 31 December of USD 5 million in 2020 and nil in 2021, respectively, were fully recognised in earnings.

<sup>2</sup> Total impairments for the years ended 31 December of USD 29 million in 2020 and of USD 10 million in 2021, respectively, were fully recognised in earnings.

<sup>3</sup> The translation from USD to CHF is shown for informational purposes only and has been calculated using the Group's average exchange rates.

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

# Statement of comprehensive income

## For the years ended 31 December

USD millions	2020	2021
Net income/loss before attribution of non-controlling interests	-824	1 437
Other comprehensive income, net of tax:		
Change in net unrealised investment gains/losses	2 741	-2 951
Change in other-than-temporary impairment		-5
Change in cash flow hedges	2	
Change in foreign currency translation	52	-461
Change in adjustment for pension benefits	-24	259
Change in credit risk of financial liabilities at fair value option	1	
Disposal of ReAssure	-2 080	
Other comprehensive income/loss attributable to non-controlling interests	127	-16
<b>Total comprehensive income/loss before attribution of non-controlling interests</b>	<b>-5</b>	<b>-1 737</b>
Comprehensive income/loss attributable to non-controlling interests	-181	16
<b>Total comprehensive income/loss attributable to common shareholders</b>	<b>-186</b>	<b>-1 721</b>

## Reclassification out of accumulated other comprehensive income

### For the years ended 31 December

2020 USD millions	Net unrealised investment gains/losses <sup>1</sup>	Other-than-temporary impairment <sup>1</sup>	Cash flow hedges <sup>1</sup>	Foreign currency translation <sup>1,2</sup>	Adjustment for pension benefits <sup>3</sup>	Credit risk of financial liabilities at fair value option	Accumulated other comprehensive income
Balance as of 1 January	5 152	-1	-2	-5 794	-850	3	-1 492
Amounts reclassified on disposal of ReAssure	-2 133			-13	66		-2 080
Change during the period	5 634		17	-166	-166	1	5 320
Amounts reclassified out of accumulated other comprehensive income	-2 263		-15	18	137		-2 123
Tax	-630			200	5		-425
<b>Balance as of period end</b>	<b>5 760</b>	<b>-1</b>	<b>0</b>	<b>-5 755</b>	<b>-808</b>	<b>4</b>	<b>-800</b>

2021 USD millions	Net unrealised investment gains/losses <sup>1</sup>	Other-than-temporary impairment <sup>1</sup>	Cash flow hedges <sup>1</sup>	Foreign currency translation <sup>1,2</sup>	Adjustment for pension benefits <sup>3</sup>	Credit risk of financial liabilities at fair value option	Accumulated other comprehensive income
Balance as of 1 January	5 760	-1	0	-5 755	-808	4	-800
Change during the period	-4 063	-6		-335	259		-4 145
Amounts reclassified out of accumulated other comprehensive income	367			-13	70		424
Tax	745	1		-113	-70		563
<b>Balance as of period end</b>	<b>2 809</b>	<b>-6</b>	<b>0</b>	<b>-6 216</b>	<b>-549</b>	<b>4</b>	<b>-3 958</b>

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

<sup>2</sup> 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.

<sup>3</sup> Reclassification adjustment included in net income is presented in "Operating expenses".

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

# Balance sheet

## Assets As of 31 December

USD millions	Note	2020	2021
<b>Investments</b>	7, 8, 9		
Fixed income securities:			
Available-for-sale (including 7 435 in 2020 and 13 662 in 2021 subject to securities lending and repurchase agreements) (amortised cost: 2020: 73 862; 2021: 82 230)		81 080	<b>85 685</b>
Trading (including 1 551 in 2020 and 824 in 2021 subject to securities lending and repurchase agreements)		1 938	<b>1 300</b>
Equity securities at fair value through earnings (including 59 in 2020 and 2 in 2021 subject to securities lending and repurchase agreements)		4 899	<b>3 978</b>
Policy loans, mortgages and other loans		3 315	<b>3 943</b>
Investment real estate		2 602	<b>2 871</b>
Short-term investments (including 3 969 in 2020 and 1 384 in 2021 subject to securities lending and repurchase agreements)		16 082	<b>8 462</b>
Other invested assets		10 314	<b>9 879</b>
Investments for unit-linked and with-profit business (including equity securities at fair value through earnings: 463 in 2020 and 468 in 2021)		463	<b>468</b>
<b>Total investments</b>		<b>120 693</b>	<b>116 586</b>
Cash and cash equivalents (including 773 in 2020 and 903 in 2021 subject to securities lending, and 3 in 2020 and 4 in 2021 backing unit-linked and with-profit contracts)		5 470	<b>5 051</b>
Accrued investment income		626	<b>638</b>
Premiums and other receivables		15 934	<b>16 875</b>
Reinsurance recoverable on unpaid claims and policy benefits		5 892	<b>6 482</b>
Funds held by ceding companies		10 726	<b>12 532</b>
Deferred acquisition costs	6	8 230	<b>8 142</b>
Acquired present value of future profits	6	928	<b>836</b>
Goodwill		4 021	<b>3 970</b>
Income taxes recoverable		337	<b>341</b>
Deferred tax assets	15	6 079	<b>6 131</b>
Other assets		3 686	<b>3 983</b>
<b>Total assets</b>		<b>182 622</b>	<b>181 567</b>

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

## Liabilities and Equity

### As of 31 December

USD millions	Note	2020	2021
<b>Liabilities</b>			
Unpaid claims and claim adjustment expenses	5	81 258	<b>84 096</b>
Liabilities for life and health policy benefits		22 456	<b>22 196</b>
Policyholder account balances		5 192	<b>5 147</b>
Unearned premiums		13 309	<b>14 134</b>
Funds held under reinsurance treaties		5 146	<b>6 553</b>
Reinsurance balances payable		1 097	<b>1 074</b>
Income taxes payable		336	<b>320</b>
Deferred and other non-current tax liabilities	15	6 740	<b>6 384</b>
Short-term debt	12	153	<b>862</b>
Accrued expenses and other liabilities	7	8 093	<b>6 800</b>
Long-term debt	12	11 584	<b>10 323</b>
<b>Total liabilities</b>		<b>155 364</b>	<b>157 889</b>
<b>Equity</b>			
Common shares, CHF 0.10 par value			
2020: 317 497 306; 2021: 317 497 306 shares authorised and issued		30	<b>30</b>
Additional paid-in capital		251	<b>266</b>
Treasury shares, net of tax		-1 396	<b>-1 402</b>
Accumulated other comprehensive income:			
Net unrealised investment gains/losses, net of tax		5 760	<b>2 809</b>
Other-than-temporary impairment, net of tax		-1	<b>-6</b>
Foreign currency translation, net of tax		-5 755	<b>-6 216</b>
Adjustment for pension and other post-retirement benefits, net of tax		-808	<b>-549</b>
Credit risk of financial liabilities at fair value option, net of tax		4	<b>4</b>
Total accumulated other comprehensive income		-800	<b>-3 958</b>
Retained earnings		29 050	<b>28 632</b>
<b>Shareholders' equity</b>		<b>27 135</b>	<b>23 568</b>
Non-controlling interests		123	<b>110</b>
<b>Total equity</b>		<b>27 258</b>	<b>23 678</b>
<b>Total liabilities and equity</b>		<b>182 622</b>	<b>181 567</b>

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

# Statement of shareholders' equity

## For the years ended 31 December

USD millions	2020	2021
<b>Common shares</b>		
Balance as of 1 January	31	30
Cancellation of shares bought back	-1	
Balance as of period end	30	30
<b>Additional paid-in capital</b>		
Balance as of 1 January	256	251
Transactions with non-controlling interests <sup>1</sup>	9	
Cancellation of shares bought back	-27	
Share-based compensation	-1	21
Realised gains/losses on treasury shares	14	-6
Balance as of period end	251	266
<b>Treasury shares, net of tax</b>		
Balance as of 1 January	-2 220	-1 396
Purchase of treasury shares	-228	-48
Cancellation of shares bought back	1 011	
Issuance of treasury shares, including share-based compensation to employees	41	42
Balance as of period end	-1 396	-1 402
<b>Net unrealised investment gains/losses, net of tax</b>		
Balance as of 1 January	5 152	5 760
Disposal of ReAssure <sup>1</sup>	-2 133	
Changes during the period	2 741	-2 951
Balance as of period end	5 760	2 809
<b>Other-than-temporary impairment, net of tax</b>		
Balance as of 1 January	-1	-1
Changes during the period		-5
Balance as of period end	-1	-6
<b>Cash flow hedges, net of tax</b>		
Balance as of 1 January	-2	0
Changes during the period	2	
Balance as of period end	0	0

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

USD millions	2020	2021
<b>Foreign currency translation, net of tax</b>		
Balance as of 1 January	-5 794	-5 755
Disposal of ReAssure <sup>1</sup>	-13	
Changes during the period	52	-461
Balance as of period end	-5 755	-6 216
<b>Adjustment for pension and other post-retirement benefits, net of tax</b>		
Balance as of 1 January	-850	-808
Disposal of ReAssure <sup>1</sup>	66	
Changes during the period	-24	259
Balance as of period end	-808	-549
<b>Credit risk of financial liabilities at fair value option, net of tax</b>		
Balance as of 1 January	3	4
Changes during the period	1	
Balance as of period end	4	4
<b>Retained earnings</b>		
Balance as of 1 January	32 676	29 050
Net income/loss after attribution of non-controlling interests	-878	1 437
Dividends on common shares	-1 765	-1 855
Cancellation of shares bought back	-983	
Balance as of period end	29 050	28 632
<b>Shareholders' equity</b>	27 135	23 568
<b>Non-controlling interests</b>		
Balance as of 1 January	1 786	123
Transactions with non-controlling interests <sup>1</sup>	4	3
Income/loss attributable to non-controlling interests	54	
Other comprehensive income attributable to non-controlling interests:		
Change in net unrealised investment gains/losses	179	-5
Change in foreign currency translation	-53	-11
Other	1	
Disposal of ReAssure <sup>1</sup>	-1 848	
Balance as of period end	123	110
<b>Total equity</b>	27 258	23 678

<sup>1</sup>In the fourth quarter of 2019, the Group agreed to reacquire the 25% stake in ReAssure in connection with the agreement to sell ReAssure to Phoenix Group Holdings plc (Phoenix). In the third quarter of 2020, the Group completed the sale of ReAssure to Phoenix.

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



# Statement of cash flows

## For the years ended 31 December

USD millions	2020	2021
<b>Cash flows from operating activities</b>		
Net income/loss attributable to common shareholders	-878	1 437
Add income/loss attributable to non-controlling interests	54	
Adjustments to reconcile net income to net cash provided/used by operating activities:		
Depreciation, amortisation and other non-cash items	617	666
Net realised investment gains/losses	972	-578
Income from equity-accounted investees, net of dividends received	175	-570
Change in:		
Technical provisions and other reinsurance assets and liabilities, net	4 736	4 251
Funds held by ceding companies and under reinsurance treaties	393	-400
Reinsurance recoverable on unpaid claims and policy benefits	214	-474
Other assets and liabilities, net	-281	-81
Income taxes payable/recoverable	-630	136
Derivative financial instruments and collateral, net	22	-283
<b>Net cash provided/used by operating activities</b>	<b>5 394</b>	<b>4 104</b>
<b>Cash flows from investing activities</b>		
Fixed income securities:		
Sales	50 302	34 414
Maturities	7 333	9 700
Purchases	-52 212	-53 581
Net purchases/sales/maturities of short-term investments	-9 681	7 305
Equity securities:		
Sales	1 782	2 387
Purchases	-1 749	-1 364
Securities purchased/sold under agreement to resell/repurchase, net	-1 587	493
Cash paid/received for acquisitions/disposals and reinsurance transactions, net	-2 535	-42
Net purchases/sales/maturities of other investments	-1 262	-1 481
Net purchases/sales/maturities of investments held for unit-linked and with-profit business	1 888	32
<b>Net cash provided/used by investing activities</b>	<b>-7 721</b>	<b>-2 137</b>
<b>Cash flows from financing activities</b>		
Policyholder account balances, unit-linked and with-profit business:		
Deposits	215	9
Withdrawals	-1 630	-64
Issuance/repayment of long-term debt	1 071	-51
Issuance/repayment of short-term debt	-190	-102
Purchase/sale of treasury shares	-199	-37
Dividends paid to shareholders	-1 765	-1 855
<b>Net cash provided/used by financing activities</b>	<b>-2 498</b>	<b>-2 100</b>

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

USD millions	2020	2021
<b>Total net cash provided/used</b>	-4 825	-133
Effect of foreign currency translation	4	-286
<b>Change in cash and cash equivalents</b>	-4 821	-419
Cash and cash equivalents as of 1 January	7 562	5 470
Cash and cash equivalents as of 1 January classified as assets held for sale	2 729	
<b>Cash and cash equivalents as of 31 December</b>	5 470	5 051

Interest paid was USD 563 million and USD 559 million (thereof USD 7 million and USD 8 million for letter of credit fees) for 2020 and 2021, respectively. Tax paid was USD 364 million and USD 258 million for 2020 and 2021, respectively.

Non-cash investing activities for 2020 amounted to USD 1.1 billion. USD 1.4 billion reflects the receipt of shares in Phoenix as part of the sales consideration for ReAssure to Phoenix. This is reduced by USD 0.3 billion representing the transaction with MS&AD. Please refer to Note 10 "Disposals" for more details.

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 Re Group, which is headquartered in Zurich, Switzerland, comprises Swiss Re Ltd (the parent company) and its subsidiaries (collectively, the “Swiss Re Group” or the “Group”). The Swiss Re Group is a wholesale provider of reinsurance, insurance and other insurance-based forms of risk transfer as well as other insurance-related services. Working through brokers and a network of offices around the globe, the Group serves a client base consisting of insurance companies, mid- to large-sized corporations and public-sector clients.

### 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.

On 22 July 2020, the Group completed the sale of ReAssure to Phoenix. Subsequently, the subject business was deconsolidated as of that date. Further details on the transaction are provided in Note 10 “Disposals”.

The segmental disclosures have been revised to reflect the way the Group manages its business activities: as of 1 January 2021, the Life Capital reporting segment ceased to be a separate Business Unit; iptiQ is a division and is reported as part of the Group items; and elipsLife is part of the Corporate Solutions reporting segment. Segmental comparative information for 2020 has been adjusted accordingly. The Life Capital reporting segment for the comparative period 2020 reflects the ReAssure business. There is no impact on the Group net income and the Group net assets. Further details are provided in Note 2 “Information on business segments”.

The Board of Directors of Swiss Re Ltd 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. The adoption is expected to have a material impact on the Group’s financial statements.

### Principles of consolidation

The Group’s financial statements include the consolidated financial statements of Swiss Re Ltd and its subsidiaries. Voting entities which Swiss Re Ltd 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 Swiss Re 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 Swiss Re 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 Swiss Re 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 shareholders' 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 shareholders' 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 2021, 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 shareholders' 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, including interest rates and associated foreign currency impacts. 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 shareholders' 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. Deferred acquisition costs for traditional long-duration contracts are amortised over the life of underlying contracts based upon the present value of gross premiums. Deferred acquisition costs for universal-life type contracts 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. The goodwill is tested for impairment on an annual basis as of 30 September, unless there is an event or circumstances which makes an impairment more likely than not. 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 13 "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. Interest and penalties related to unrecognised tax benefits are recorded in income tax expense.

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 2021, 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, morbidity, 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 acquisition date. The assumptions are based on current best estimates, 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 or morbidity rates are generally based on experience multiples applied to the actuarial select and ultimate tables based on industry experience.

### **Policyholder account balances**

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

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

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

Amounts assessed against policyholders for mortality, administration and surrender are reported as fee income. Amounts credited to policyholders are reported 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, which is presented in a separate line item on the face of the income statement.

In 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.

### **Premium deficiency testing**

The level of the premium deficiency test is at the segment level or separate business within Group Items. The testing is performed net of external retrocessions.

For long duration contracts, liabilities for life and health policy benefits are increased with a charge to earnings if there is a premium deficiency. A premium deficiency exists if the liability for future policy benefits calculated using best estimate cash flows, including investment income, is higher than the net GAAP liability. If a premium deficiency exists, the deferred acquisition costs for the related business segment will be expensed to the extent of the deficiency. If the deficiency is greater than the deferred acquisition costs, then an additional liability will be established for the difference. In connection with the premium deficiency testing, an analysis is performed to determine that profits will not be followed by losses. The best estimate cash flows by year along with the change in the locked in GAAP reserve are reviewed to determine that there are not any profits followed by losses. If so, an additional GAAP reserve is established by calculating the portion of future premiums required to be used as an additional reserve to offset the future losses.

For short duration contracts, a premium deficiency exists when the unearned premium plus expected investment income is less than the total of expected claim costs and claim adjustment expenses, related estimated policy maintenance costs (incl. ULAE), related unamortised acquisition costs and expected dividends to policyholders. If a premium deficiency exists, the deferred acquisition costs for the related business segment will be expensed to the extent of the deficiency. If the deficiency is greater than the deferred acquisition cost, then a liability will be established for the difference.

### **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 shareholders' equity will ultimately accrue to policyholders and not shareholders.

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 2021, the Group has a Leadership Performance Plan (LPP)/Leadership Share Plan (LSP), restricted shares and a Global Share Participation Plan. These plans are described in more detail in Note 17 "Share-based payments". The Group accounts for share-based payment transactions with employees using the fair value method. Under the fair value method, the fair value of the awards is recognised in earnings over the vesting period.

For share-based compensation plans which are settled in cash, compensation costs are recognised as liabilities, whereas for equity-settled plans, compensation costs are recognised as an accrual to additional paid-in capital within shareholders' equity.

### Treasury shares

Treasury shares are reported at cost in shareholders' equity.

### Earnings per common share

Basic earnings per common share are determined by dividing net income available to shareholders by the weighted average number of common shares entitled to dividends during the year. Diluted earnings per common share reflect the effect on earnings and average common shares outstanding associated with dilutive securities.

### Subsequent events

Subsequent events for the current reporting period have been evaluated up to 16 March 2022. This is the date on which the financial statements are available to be issued.

### Adoption of new accounting standards

In December 2019, the FASB issued ASU 2019-12, "Simplifying the Accounting for Income Taxes", an update to Topic 740, "Income Taxes". The amendments in this Update simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740 and by clarifying and amending existing guidance, with the added benefit of a reduction in the cost and complexity in accounting for

Income Taxes, and an improvement in the usefulness of the information provided to the users of financial statements. The Group adopted the standard on 1 January 2021. The adoption did not have a material impact on the Group's financial statements.

In January 2020, the FASB issued ASU 2020-01, "Clarifying the Interactions between Topic 321, Topic 323, and Topic 815", an update to Topic 321, "Investments – Equity Securities", Topic 323, "Investments – Equity Method and Joint Ventures", and Topic 815 "Derivatives and Hedging". The amendments clarify that an entity should consider observable transactions that result in either applying or discontinuing the equity method of accounting for the purpose of applying the measurement alternative in Topic 321. In addition, the amendments clarify that when determining the accounting for nonderivative forward contracts and purchased options, an entity should not consider whether the underlying securities would be accounted for under the equity method or fair value option upon settlement or exercise, for the purposes of evaluating characteristic (a) in ASC 815-10-15-141. The Group adopted the standard on 1 January 2021. The adoption did not have an impact on the Group's financial statements.

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 2021, the Group applied the guidance to Topic 815 related to Group's adherence to the ISDA 2020 Fallbacks Protocol, which is a standardized approach for amending contracts in order to incorporate IBOR fallback provisions and 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".

In January 2021, the FASB issued ASU 2021-01, "Scope", an update to Topic 848, "Reference Rate Reform". Because of the broad population of derivatives affected by the market-wide transition to new reference rates (commonly referred to as the "discounting transition"), stakeholders analysed the accounting implications of the discounting transition against the available exceptions and expedients within Topic 848, "Reference Rate Reform", which led them to raise questions about the scope of that Topic. The amendments clarify the scope of Topic 848 and allow entities to apply certain optional provisions in Topic 848 to derivative instruments that undergo a modification of the interest rate used for margining, discounting, or contract price alignment because of the discounting transition that do not also reference LIBOR or another reference rate that is expected to be discontinued as a result of reference rate reform. The Group adopted ASU 2021-01 on a prospective basis from 1 January 2021.

#### 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 Swiss Re Ltd 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 three core operating business segments: Property & Casualty Reinsurance, Life & Health Reinsurance and Corporate Solutions. The assignment of assets and liabilities for entities that span more than one segment is determined by considering local statutory requirements, legal and other constraints, the economic view of duration and currency requirements of the reinsurance business written and the capacity of the segments to absorb risks. Interest expense is based on the segment's capital funding position. The tax impact of a segment is derived from the legal entity tax obligations and the segmentation of the pre-tax result. While most of the tax items can be directly attributed to individual segments, the tax within an entity which impacts two or more segments is allocated to the segments based on the applicable statutory tax rate on pre-tax income or loss with permanent tax differences specifically allocated to the applicable segments. Property & Casualty Reinsurance and Life & Health Reinsurance share the same year-to-date effective tax rate as both business segments belong to the Reinsurance Business Unit.

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

### Corporate Solutions

Corporate Solutions offers innovative insurance capacity to mid- to large-sized corporations across the globe. Offerings range from standard risk transfer covers and multi-line programmes to highly customised solutions tailored to the needs of clients. Corporate Solutions serves customers from offices worldwide.

### Life Capital

As of 1 January 2021, the Life Capital reporting segment ceased to be managed as a separate Business Unit. Life Capital managed the Group's primary life and health business as well as its primary retail property and casualty business. It encompassed the closed and open life and health insurance books, including the ReAssure business sold in 2020 (please refer to Note 10 of the 2020 Annual Report for further details on the disposal of ReAssure Group plc.) and the business comprising elipsLife and iptiQ. In 2021, iptiQ operates as a stand-alone division, and is reported as part of the Group items reporting segment. elipsLife moved to the Corporate Solutions reporting segment. Comparative information for 2020 has been adjusted accordingly. The Life Capital reporting segment for the comparative period 2020 reflects the ReAssure business.

### Group items

Group items includes iptiQ, which operates as a standalone division, with results reported within the Group items segment. Group items also includes items not allocated to the business segments, which encompass Principal Investments, Swiss Re Ltd, the Group's ultimate parent company, certain Treasury units and reinsurance and insurance business in run-off. iptiQ partners with distributors providing Swiss Re access to risk pools offering white-labelled protection cover in both the life and health as well as property and casualty businesses. Swiss Re Ltd charges trademark licence fees to the business segments which are reported as other revenues. Certain administrative expenses of the corporate centre functions that are not recharged to the operating segments are reported as Group items.

### 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

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Consolidation	Total
<b>Revenues</b>							
Gross premiums written	21 512	15 067	6 185	296	915	-1 024	42 951
Net premiums written	20 636	13 657	4 785	108	641		39 827
Change in unearned premiums	196	68	234	3	-7		494
<b>Premiums earned</b>	<b>20 832</b>	<b>13 725</b>	<b>5 019</b>	<b>111</b>	<b>634</b>		<b>40 321</b>
Fee income from policyholders		158		205	86		449
Net investment income – non-participating business	1 178	1 140	156	348	483	-317	2 988
Net realised investment gains/losses – non-participating business	683	445	56	110	436		1 730
Net investment result – unit-linked and with-profit business		-32		-2 155			-2 187
Other revenues	26	4	5		408	-406	37
<b>Total revenues</b>	<b>22 719</b>	<b>15 440</b>	<b>5 236</b>	<b>-1 381</b>	<b>2 047</b>	<b>-723</b>	<b>43 338</b>
<b>Expenses</b>							
Claims and claim adjustment expenses	-16 403		-3 433		-2		-19 838
Life and health benefits		-12 204	-899	-223	-603		-13 929
Return credited to policyholders		5		2 059	-304		1 760
Acquisition costs	-5 104	-1 999	-680	-275	-178		-8 236
Operating expenses	-1 200	-786	-783	-211	-1 023	406	-3 597
<b>Total expenses before interest expenses</b>	<b>-22 707</b>	<b>-14 984</b>	<b>-5 795</b>	<b>1 350</b>	<b>-2 110</b>	<b>406</b>	<b>-43 840</b>
<b>Income/loss before interest and income tax expense/benefit</b>							
	12	456	-559	-31	-63	-317	-502
Interest expenses	-321	-367	-32	-38	-147	317	-588
<b>Income/loss before income tax expense/benefit</b>	<b>-309</b>	<b>89</b>	<b>-591</b>	<b>-69</b>	<b>-210</b>	<b>0</b>	<b>-1 090</b>
Income tax expense/benefit	62	-18	130	13	79		266
<b>Net income/loss before attribution of non-controlling interests</b>	<b>-247</b>	<b>71</b>	<b>-461</b>	<b>-56</b>	<b>-131</b>	<b>0</b>	<b>-824</b>
Income/loss attributable to non-controlling interests			-6	-48			-54
<b>Net income/loss attributable to common shareholders</b>	<b>-247</b>	<b>71</b>	<b>-467</b>	<b>-104</b>	<b>-131</b>	<b>0</b>	<b>-878</b>
Claims ratio in %	78.7		86.4				80.3
Expense ratio in %	30.3		29.1				30.0
Combined ratio in %	109.0		115.5				110.3
Management expense ratio <sup>1</sup> in %		5.2					
Net operating margin <sup>2</sup> in %	0.1	2.9	-10.7	-4.0			-1.1

<sup>1</sup> 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 and with-profit business".

<sup>2</sup> Net operating margin is calculated as "Income/loss before interest and income tax expense/benefit" divided by "Total revenues" excluding "Net investment result – unit-linked and with-profit business".

**Business segments – income statement**

For the year ended 31 December

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
<b>Revenues</b>						
Gross premiums written	23 246	16 071	7 492	795	-946	46 658
Net premiums written	22 381	14 584	5 717	538		43 220
Change in unearned premiums	-455	104	-374	-28		-753
<b>Premiums earned</b>						
Fee income from policyholders	21 926	14 688	5 343	510		42 467
Net investment income – non-participating business	1 613	1 044	121	787	-192	3 373
Net realised investment gains/losses – non-participating business	542	302	115	-422		537
Net investment result – unit-linked and with-profit business		63				63
Other revenues	20	3	12	412	-407	40
<b>Total revenues</b>	<b>24 101</b>	<b>16 280</b>	<b>5 591</b>	<b>1 366</b>	<b>-599</b>	<b>46 739</b>
<b>Expenses</b>						
Claims and claim adjustment expenses	-14 773		-2 374	-38	4	-17 181
Life and health benefits		-13 648	-924	-416	-4	-14 992
Return credited to policyholders		-94		-337		-431
Acquisition costs	-5 359	-2 014	-690	-165		-8 228
Operating expenses	-1 162	-864	-851	-1 035	407	-3 505
<b>Total expenses before interest expenses</b>	<b>-21 294</b>	<b>-16 620</b>	<b>-4 839</b>	<b>-1 991</b>	<b>407</b>	<b>-44 337</b>
<b>Income/loss before interest and income tax expense/benefit</b>						
	<b>2 807</b>	<b>-340</b>	<b>752</b>	<b>-625</b>	<b>-192</b>	<b>2 402</b>
Interest expenses	-296	-286	-26	-155	192	-571
<b>Income/loss before income tax expense/benefit</b>	<b>2 511</b>	<b>-626</b>	<b>726</b>	<b>-780</b>	<b>0</b>	<b>1 831</b>
Income tax expense/benefit	-413	103	-149	65		-394
<b>Net income/loss before attribution of non-controlling interests</b>						
	<b>2 098</b>	<b>-523</b>	<b>577</b>	<b>-715</b>	<b>0</b>	<b>1 437</b>
Income/loss attributable to non-controlling interests	-1		1			
<b>Net income/loss attributable to common shareholders</b>	<b>2 097</b>	<b>-523</b>	<b>578</b>	<b>-715</b>	<b>0</b>	<b>1 437</b>
Claims ratio in %	67.4		61.8			66.2
Expense ratio in %	29.7		28.8			29.6
Combined ratio in %	97.1		90.6			95.8
Management expense ratio <sup>1</sup> in %		5.4				
Net operating margin <sup>2</sup> in %	11.6	-2.1	13.5			5.1

<sup>1</sup> 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 and with-profit business".

<sup>2</sup> Net operating margin is calculated as "Income/loss before interest and income tax expense/benefit" divided by "Total revenues" excluding "Net investment result – unit-linked and with-profit business".

**Business segments – balance sheet**

As of 31 December

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
<b>Assets</b>						
Fixed income securities	39 691	32 958	8 522	1 847		83 018
Equity securities	1 518	641	225	2 515		4 899
Other investments	19 345	3 502	149	5 830	-12 595	16 231
Short-term investments	9 216	4 275	2 072	519		16 082
Investments for unit-linked and with-profit business		463				463
Cash and cash equivalents	2 941	1 625	692	212		5 470
Deferred acquisition costs	2 576	4 900	426	328		8 230
Acquired present value of future profits		510		418		928
Reinsurance recoverable	2 030	2 042	6 902	89	-5 171	5 892
Other reinsurance assets	13 003	7 883	3 108	3 861	-1 195	26 660
Goodwill	1 958	1 869	194			4 021
Other	8 769	7 705	2 772	5 438	-13 956	10 728
<b>Total assets</b>	<b>101 047</b>	<b>68 373</b>	<b>25 062</b>	<b>21 057</b>	<b>-32 917</b>	<b>182 622</b>
<b>Liabilities</b>						
Unpaid claims and claim adjustment expenses	55 267	14 863	15 343	953	-5 168	81 258
Liabilities for life and health policy benefits		20 207	747	1 503	-1	22 456
Policyholder account balances		1 303		3 889		5 192
Other reinsurance liabilities	14 570	1 399	4 845	253	-1 515	19 552
Short-term debt	435	1 500		126	-1 908	153
Long-term debt	4 771	12 304	498	2 400	-8 389	11 584
Other	16 834	9 416	1 081	3 774	-15 936	15 169
<b>Total liabilities</b>	<b>91 877</b>	<b>60 992</b>	<b>22 514</b>	<b>12 898</b>	<b>-32 917</b>	<b>155 364</b>
<b>Shareholders' equity</b>	<b>9 168</b>	<b>7 381</b>	<b>2 427</b>	<b>8 159</b>	<b>0</b>	<b>27 135</b>
Non-controlling interests	2		121			123
<b>Total equity</b>	<b>9 170</b>	<b>7 381</b>	<b>2 548</b>	<b>8 159</b>	<b>0</b>	<b>27 258</b>
<b>Total liabilities and equity</b>	<b>101 047</b>	<b>68 373</b>	<b>25 062</b>	<b>21 057</b>	<b>-32 917</b>	<b>182 622</b>

**Business segments – balance sheet**

As of 31 December

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
<b>Assets</b>						
Fixed income securities	42 762	32 656	9 688	1 879		86 985
Equity securities	2 218	213	254	1 293		3 978
Other investments	19 482	3 658	162	5 326	-11 935	16 693
Short-term investments	4 335	2 294	1 476	357		8 462
Investments for unit-linked and with-profit business		468				468
Cash and cash equivalents	1 937	2 003	858	253		5 051
Deferred acquisition costs	2 538	4 717	480	407		8 142
Acquired present value of future profits		431		405		836
Reinsurance recoverable	2 004	2 289	6 907	114	-4 832	6 482
Other reinsurance assets	15 423	8 314	3 120	3 813	-1 263	29 407
Goodwill	1 903	1 855	182	30		3 970
Other	9 222	9 229	3 142	4 088	-14 588	11 093
<b>Total assets</b>	<b>101 824</b>	<b>68 127</b>	<b>26 269</b>	<b>17 965</b>	<b>-32 618</b>	<b>181 567</b>
<b>Liabilities</b>						
Unpaid claims and claim adjustment expenses	56 883	15 549	15 660	835	-4 831	84 096
Liabilities for life and health policy benefits		20 027	798	1 372	-1	22 196
Policyholder account balances		1 244		3 903		5 147
Other reinsurance liabilities	16 040	1 600	5 317	451	-1 647	21 761
Short-term debt	1 269	1 750			-2 157	862
Long-term debt	3 596	12 174	499	2 347	-8 293	10 323
Other	14 524	10 970	1 141	2 558	-15 689	13 504
<b>Total liabilities</b>	<b>92 312</b>	<b>63 314</b>	<b>23 415</b>	<b>11 466</b>	<b>-32 618</b>	<b>157 889</b>
<b>Shareholders' equity</b>						
	<b>9 505</b>	<b>4 813</b>	<b>2 751</b>	<b>6 499</b>	<b>0</b>	<b>23 568</b>
Non-controlling interests	7		103			110
<b>Total equity</b>	<b>9 512</b>	<b>4 813</b>	<b>2 854</b>	<b>6 499</b>	<b>0</b>	<b>23 678</b>
<b>Total liabilities and equity</b>	<b>101 824</b>	<b>68 127</b>	<b>26 269</b>	<b>17 965</b>	<b>-32 618</b>	<b>181 567</b>



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

For the year ended 31 December

2020 USD millions	Property	Casualty	Specialty	Unallocated	Total
<b>Revenues</b>					
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
<b>Premiums earned</b>	<b>8 250</b>	<b>9 609</b>	<b>2 973</b>		<b>20 832</b>
Net investment income				1 178	1 178
Net realised investment gains/losses				683	683
Other revenues				26	26
<b>Total revenues</b>	<b>8 250</b>	<b>9 609</b>	<b>2 973</b>	<b>1 887</b>	<b>22 719</b>
<b>Expenses</b>					
Claims and claim adjustment expenses	-6 785	-7 570	-2 048		-16 403
Acquisition costs	-1 640	-2 732	-732		-5 104
Operating expenses	-604	-443	-153		-1 200
<b>Total expenses before interest expenses</b>	<b>-9 029</b>	<b>-10 745</b>	<b>-2 933</b>	<b>0</b>	<b>-22 707</b>
<b>Income/loss before interest and income tax expense</b>	<b>-779</b>	<b>-1 136</b>	<b>40</b>	<b>1 887</b>	<b>12</b>
Interest expenses				-321	-321
<b>Income/loss before income tax expense</b>	<b>-779</b>	<b>-1 136</b>	<b>40</b>	<b>1 566</b>	<b>-309</b>
Claims ratio in %	82.2	78.8	68.9		78.7
Expense ratio in %	27.2	33.0	29.8		30.3
Combined ratio in %	109.4	111.8	98.7		109.0

**Property & Casualty Reinsurance business segment – by line of business**

For the year ended 31 December

2021 USD millions	Property	Casualty	Specialty	Unallocated	Total
<b>Revenues</b>					
Gross premiums written	9 855	10 095	3 296		23 246
Net premiums written	9 102	10 038	3 241		22 381
Change in unearned premiums	-409	100	-146		-455
<b>Premiums earned</b>	<b>8 693</b>	<b>10 138</b>	<b>3 095</b>		<b>21 926</b>
Net investment income				1 613	1 613
Net realised investment gains/losses				542	542
Other revenues				20	20
<b>Total revenues</b>	<b>8 693</b>	<b>10 138</b>	<b>3 095</b>	<b>2 175</b>	<b>24 101</b>
<b>Expenses</b>					
Claims and claim adjustment expenses	-5 685	-7 372	-1 716		-14 773
Acquisition costs	-1 743	-2 862	-754		-5 359
Operating expenses	-589	-379	-194		-1 162
<b>Total expenses before interest expenses</b>	<b>-8 017</b>	<b>-10 613</b>	<b>-2 664</b>	<b>0</b>	<b>-21 294</b>
<b>Income/loss before interest and income tax expense</b>	<b>676</b>	<b>-475</b>	<b>431</b>	<b>2 175</b>	<b>2 807</b>
Interest expenses				-296	-296
<b>Income/loss before income tax expense</b>	<b>676</b>	<b>-475</b>	<b>431</b>	<b>1 879</b>	<b>2 511</b>
Claims ratio in %	65.4	72.7	55.5		67.4
Expense ratio in %	26.8	32.0	30.6		29.7
Combined ratio in %	92.2	104.7	86.1		97.1

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

For the year ended 31 December

2020 USD millions	Life	Health	Unallocated	Total
<b>Revenues</b>				
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
<b>Premiums earned</b>	<b>9 192</b>	<b>4 533</b>		<b>13 725</b>
Fee income from policyholders	158			158
Net investment income – non-participating business	870	270		1 140
Net realised investment gains/losses – non-participating business	54	-12	403	445
Net investment result – unit-linked and with-profit business	-32			-32
Other revenues	3	1		4
<b>Total revenues</b>	<b>10 245</b>	<b>4 792</b>	<b>403</b>	<b>15 440</b>
<b>Expenses</b>				
Life and health benefits	-8 587	-3 617		-12 204
Return credited to policyholders	5			5
Acquisition costs	-1 309	-690		-1 999
Operating expenses	-522	-264		-786
<b>Total expenses before interest expenses</b>	<b>-10 413</b>	<b>-4 571</b>	<b>0</b>	<b>-14 984</b>
<b>Income/loss before interest and income tax expense</b>	<b>-168</b>	<b>221</b>	<b>403</b>	<b>456</b>
Interest expenses			-367	-367
<b>Income/loss before income tax expense</b>	<b>-168</b>	<b>221</b>	<b>36</b>	<b>89</b>
Management expense ratio <sup>1</sup> in %	5.1	5.5		5.2
Net operating margin <sup>2</sup> in %	-1.6	4.6		2.9

<sup>1</sup> 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 and with-profit business".

<sup>2</sup> Net operating margin is calculated as "Income/loss before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked and with-profit business".

**Life & Health Reinsurance business segment – by line of business**

For the year ended 31 December

2021 USD millions	Life	Health	Unallocated	Total
<b>Revenues</b>				
Gross premiums written	11 318	4 753		16 071
Net premiums written	10 116	4 468		14 584
Change in unearned premiums	46	58		104
<b>Premiums earned</b>	10 162	4 526		14 688
Fee income from policyholders	180			180
Net investment income – non-participating business	821	223		1 044
Net realised investment gains/losses – non-participating business	-3		305	302
Net investment result – unit-linked and with-profit business	63			63
Other revenues	2	1		3
<b>Total revenues</b>	<b>11 225</b>	<b>4 750</b>	<b>305</b>	<b>16 280</b>
<b>Expenses</b>				
Life and health benefits	-10 320	-3 328		-13 648
Return credited to policyholders	-94			-94
Acquisition costs	-1 348	-666		-2 014
Operating expenses	-567	-297		-864
<b>Total expenses before interest expenses</b>	<b>-12 329</b>	<b>-4 291</b>	<b>0</b>	<b>-16 620</b>
<b>Income/loss before interest and income tax expense</b>	<b>-1 104</b>	<b>459</b>	<b>305</b>	<b>-340</b>
Interest expenses			-286	-286
<b>Income/loss before income tax expense</b>	<b>-1 104</b>	<b>459</b>	<b>19</b>	<b>-626</b>
Management expense ratio <sup>1</sup> in %	5.1	6.3		5.4
Net operating margin <sup>2</sup> in %	-9.9	9.7		-2.1

<sup>1</sup> 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 and with-profit business".

<sup>2</sup> Net operating margin is calculated as "Income/loss before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked and with-profit business".

**d) Group items business segment**

For the year ended 31 December

2020 USD millions	iptiQ	Other	Total
<b>Revenues</b>			
Gross premiums written	804	111	915
Net premiums written	530	111	641
Change in unearned premiums	-7		-7
<b>Premiums earned</b>	<b>523</b>	<b>111</b>	<b>634</b>
Fee income from policyholders		86	86
Net investment income – non-participating business	37	446	483
Net realised investment gains/losses		436	436
Other revenues	1	407	408
<b>Total revenues</b>	<b>561</b>	<b>1 486</b>	<b>2 047</b>
<b>Expenses</b>			
Claims and claim adjustment expenses	-2		-2
Life and health benefits	-431	-172	-603
Return credited to policyholders		-304	-304
Acquisition costs	-95	-83	-178
Operating expenses	-247	-776	-1 023
<b>Total expenses before interest expenses</b>	<b>-775</b>	<b>-1 335</b>	<b>-2 110</b>
<b>Income/loss before interest and income tax expense/benefit</b>	<b>-214</b>	<b>151</b>	<b>-63</b>
Interest expenses	-1	-146	-147
<b>Income/loss before income tax expense/benefit</b>	<b>-215</b>	<b>5</b>	<b>-210</b>
Income tax expense/benefit		79	79
<b>Net income/loss</b>	<b>-215</b>	<b>84</b>	<b>-131</b>

**Group items business segment**

For the year ended 31 December

2021 USD millions	iptiQ	Other	Total
<b>Revenues</b>			
Gross premiums written	723	72	795
Net premiums written	466	72	538
Change in unearned premiums	-28		-28
<b>Premiums earned</b>	438	72	510
Fee income from policyholders		79	79
Net investment income – non-participating business	21	766	787
Net realised investment gains/losses	-4	-418	-422
Other revenues	2	410	412
<b>Total revenues</b>	<b>457</b>	<b>909</b>	<b>1 366</b>
<b>Expenses</b>			
Claims and claim adjustment expenses	-38		-38
Life and health benefits	-302	-114	-416
Return credited to policyholders		-337	-337
Acquisition costs	-105	-60	-165
Operating expenses	-290	-745	-1 035
<b>Total expenses before interest expenses</b>	<b>-735</b>	<b>-1 256</b>	<b>-1 991</b>
<b>Income/loss before interest and income tax expense/benefit</b>	<b>-278</b>	<b>-347</b>	<b>-625</b>
Interest expenses	-1	-154	-155
<b>Income/loss before income tax expense/benefit</b>	<b>-279</b>	<b>-501</b>	<b>-780</b>
Income tax expense/benefit	32	33	65
<b>Net income/loss</b>	<b>-247</b>	<b>-468</b>	<b>-715</b>

**e) Net premiums earned and fee income from policyholders by geography**

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

USD millions	2020	2021
Americas	19 462	20 984
Europe (including Middle East and Africa)	12 889	13 543
Asia-Pacific	8 419	8 199
<b>Total</b>	<b>40 770</b>	<b>42 726</b>

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

USD millions	2020	2021
United States	17 130	18 300
United Kingdom	3 793	3 963
Australia	1 865	2 055
China	2 133	1 847
Canada	1 341	1 509
Germany	1 336	1 450
Japan	1 677	1 288
Netherlands	1 325	1 131
France	968	1 022
Switzerland	1 205	990
Ireland	757	813
Other	7 240	8 358
<b>Total</b>	<b>40 770</b>	<b>42 726</b>

Net 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

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Total
<b>Premiums earned, thereof:</b>						
Direct			5 245	300	788	6 333
Reinsurance	21 152	14 794	940		81	36 967
Intra-group transactions (assumed and ceded)	418	343	-411	-118	-232	0
<b>Premiums earned before retrocession to external parties</b>						
	21 570	15 137	5 774	182	637	43 300
Retrocession to external parties	-738	-1 412	-755	-71	-3	-2 979
<b>Net premiums earned</b>	<b>20 832</b>	<b>13 725</b>	<b>5 019</b>	<b>111</b>	<b>634</b>	<b>40 321</b>
<b>Fee income from policyholders, thereof:</b>						
Direct				205		205
Reinsurance		159			86	245
<b>Gross fee income before retrocession to external parties</b>						
		159		205	86	450
Retrocession to external parties		-1				-1
<b>Net fee income</b>	<b>0</b>	<b>158</b>	<b>0</b>	<b>205</b>	<b>86</b>	<b>449</b>

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Total
<b>Premiums earned, thereof:</b>						
Direct			5 816		624	6 440
Reinsurance	22 057	16 144	1 021		57	39 279
Intra-group transactions (assumed and ceded)	654	9	-501		-162	0
<b>Premiums earned before retrocession to external parties</b>						
	22 711	16 153	6 336		519	45 719
Retrocession to external parties	-785	-1 465	-993		-9	-3 252
<b>Net premiums earned</b>	<b>21 926</b>	<b>14 688</b>	<b>5 343</b>	<b>0</b>	<b>510</b>	<b>42 467</b>
<b>Fee income from policyholders, thereof:</b>						
Direct						0
Reinsurance		182			79	261
<b>Gross fee income before retrocession to external parties</b>						
		182			79	261
Retrocession to external parties		-2				-2
<b>Net fee income</b>	<b>0</b>	<b>180</b>	<b>0</b>	<b>0</b>	<b>79</b>	<b>259</b>



**Claims and claim adjustment expenses**

For the year ended 31 December

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Total
<b>Claims paid, thereof:</b>						
Gross claims paid to external parties	-12 225	-11 813	-4 031	-1 088	-900	-30 057
Intra-group transactions (assumed and ceded)	-553	-222	553	87	135	0
<b>Claims before receivables from retrocession to external parties</b>						
Retrocession to external parties	-12 778	-12 035	-3 478	-1 001	-765	-30 057
	416	1 228	520	117	2	2 283
<b>Net claims paid</b>	<b>-12 362</b>	<b>-10 807</b>	<b>-2 958</b>	<b>-884</b>	<b>-763</b>	<b>-27 774</b>
<b>Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:</b>						
Gross – with external parties	-4 087	-1 474	-1 057	754	83	-5 781
Intra-group transactions (assumed and ceded)	278	-88	-284	18	76	0
<b>Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties</b>						
Retrocession to external parties	-3 809	-1 562	-1 341	772	159	-5 781
	-232	165	-33	-111	-1	-212
<b>Net unpaid claims and claim adjustment expenses; life and health benefits</b>	<b>-4 041</b>	<b>-1 397</b>	<b>-1 374</b>	<b>661</b>	<b>158</b>	<b>-5 993</b>
<b>Claims and claim adjustment expenses; life and health benefits</b>	<b>-16 403</b>	<b>-12 204</b>	<b>-4 332</b>	<b>-223</b>	<b>-605</b>	<b>-33 767</b>

**Acquisition costs**

For the year ended 31 December

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Total
<b>Acquisition costs, thereof:</b>						
Gross acquisition costs with external parties	-5 142	-2 243	-850	-276	-199	-8 710
Intra-group transactions (assumed and ceded)	-68	-24	66	6	20	0
<b>Acquisition costs before impact of retrocession to external parties</b>						
Retrocession to external parties	-5 210	-2 267	-784	-270	-179	-8 710
	106	268	104	-5	1	474
<b>Net acquisition costs</b>	<b>-5 104</b>	<b>-1 999</b>	<b>-680</b>	<b>-275</b>	<b>-178</b>	<b>-8 236</b>

**Claims and claim adjustment expenses**

For the year ended 31 December

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Total
<b>Claims paid, thereof:</b>						
Gross claims paid to external parties	-11 818	-13 967	-3 751		-768	-30 304
Intra-group transactions (assumed and ceded)	-561	-75	534		102	0
<b>Claims before receivables from retrocession to external parties</b>	-12 379	-14 042	-3 217		-666	-30 304
Retrocession to external parties	282	1 493	518		2	2 295
<b>Net claims paid</b>	<b>-12 097</b>	<b>-12 549</b>	<b>-2 699</b>	<b>0</b>	<b>-664</b>	<b>-28 009</b>
<b>Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:</b>						
Gross – with external parties	-2 903	-1 242	-696		179	-4 662
Intra-group transactions (assumed and ceded)	166	70	-265		29	0
<b>Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties</b>	-2 737	-1 172	-961		208	-4 662
Retrocession to external parties	61	73	362		2	498
<b>Net unpaid claims and claim adjustment expenses; life and health benefits</b>	<b>-2 676</b>	<b>-1 099</b>	<b>-599</b>	<b>0</b>	<b>210</b>	<b>-4 164</b>
<b>Claims and claim adjustment expenses; life and health benefits</b>	<b>-14 773</b>	<b>-13 648</b>	<b>-3 298</b>	<b>0</b>	<b>-454</b>	<b>-32 173</b>

**Acquisition costs**

For the year ended 31 December

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Total
<b>Acquisition costs, thereof:</b>						
Gross acquisition costs with external parties	-5 374	-2 290	-923		-196	-8 783
Intra-group transactions (assumed and ceded)	-112	-4	87		29	0
<b>Acquisition costs before impact of retrocession to external parties</b>	-5 486	-2 294	-836		-167	-8 783
Retrocession to external parties	127	280	146		2	555
<b>Net acquisition costs</b>	<b>-5 359</b>	<b>-2 014</b>	<b>-690</b>	<b>0</b>	<b>-165</b>	<b>-8 228</b>

**Reinsurance recoverable on unpaid claims and policy benefits**

As of 31 December 2020 and 2021, the Group had a reinsurance recoverable of USD 5 892 million and USD 6 482 million, respectively. The concentration of credit risk is regularly monitored and evaluated. The reinsurance programme with Berkshire Hathaway and subsidiaries accounted for 30% and 26% of the Group's reinsurance recoverable as of year-end 2020 and 2021, respectively.

**Reinsurance receivables**

Reinsurance receivables as of 31 December were as follows:

USD millions	2020	2021
Premium receivables invoiced	3 960	4 835
Receivables invoiced from ceded re/insurance business	468	392
Assets arising from the application of the deposit method of accounting and meeting the definition of financing receivables	649	640
Recognised allowance	-73	-80

**Policyholder dividends**

Policyholder dividends are recognised as an element of policyholder benefits. The relative percentage of participating insurance of the life and health policy benefits in 2020 and 2021 was nil. The amount of policyholder dividend expense in 2020 and 2021 was USD 42 million and nil, respectively.

## 4 Premiums written

For the years ended 31 December

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Consolidation	Total
<b>Gross premiums written, thereof:</b>							
Direct			5 229	296	834		6 359
Reinsurance	20 871	14 732	908		81		36 592
Intra-group transactions (assumed)	641	335	48			-1 024	0
<b>Gross premiums written</b>	<b>21 512</b>	<b>15 067</b>	<b>6 185</b>	<b>296</b>	<b>915</b>	<b>-1 024</b>	<b>42 951</b>
Intra-group transactions (ceded)	-48		-589	-117	-270	1 024	0
<b>Gross premiums written before retrocession to external parties</b>							
Retrocession to external parties	-828	-1 410	-811	-71	-4		-3 124
<b>Net premiums written</b>	<b>20 636</b>	<b>13 657</b>	<b>4 785</b>	<b>108</b>	<b>641</b>	<b>0</b>	<b>39 827</b>

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Consolidation	Total
<b>Gross premiums written, thereof:</b>							
Direct			6 321		738		7 059
Reinsurance	22 424	16 062	1 056		57		39 599
Intra-group transactions (assumed)	822	9	115			-946	0
<b>Gross premiums written</b>	<b>23 246</b>	<b>16 071</b>	<b>7 492</b>		<b>795</b>	<b>-946</b>	<b>46 658</b>
Intra-group transactions (ceded)	-115		-585		-246	946	0
<b>Gross premiums written before retrocession to external parties</b>							
Retrocession to external parties	-750	-1 487	-1 190		-11		-3 438
<b>Net premiums written</b>	<b>22 381</b>	<b>14 584</b>	<b>5 717</b>	<b>0</b>	<b>538</b>	<b>0</b>	<b>43 220</b>

## 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	2020	2021
Balance as of 1 January	72 373	81 258
Balance as of 1 January classified as held for sale	497	
Reinsurance recoverable	-3 732	-3 636
Deferred expense on retroactive reinsurance	-168	-191
<b>Net balance as of 1 January</b>	<b>68 970</b>	<b>77 431</b>
Incurred related to:		
Current year	34 064	32 656
Prior year	166	-727
Amortisation of deferred expense on retroactive reinsurance and impact of commutations	-36	8
<b>Total incurred</b>	<b>34 194</b>	<b>31 937</b>
Paid related to:		
Current year	-10 329	-9 570
Prior year	-17 445	-18 439
<b>Total paid</b>	<b>-27 774</b>	<b>-28 009</b>
Foreign exchange	2 149	-1 686
Effect of acquisitions, disposals, new retroactive reinsurance and other items	-108	283
<b>Net balance as of period end</b>	<b>77 431</b>	<b>79 956</b>
Reinsurance recoverable	3 636	3 975
Deferred expense on retroactive reinsurance	191	165
<b>Balance as of period end</b>	<b>81 258</b>	<b>84 096</b>

### Prior-year development

Non-life claims development on prior years in the year ended 31 December 2021 is mainly driven by favourable property experience partly offset by adverse casualty experience. Development in property is principally due to reserve releases related to natural catastrophe events and lower than expected claims activity, mostly in North America and Asia. The deterioration for casualty mainly comes from adverse development for liability in North America and cyber, partly offset by favourable development in workers' compensation. Specialty was impacted by positive claims experience mainly in credit and engineering, partly offset by adverse development in marine and aviation.

For life and health lines of business, development on prior years' unpaid claims in the year ended 31 December 2021 is favourable. For life business, there is favourable development in Continental Europe and the UK. For health business, there is unfavourable development in disability portfolios in the US and Australia driven by adverse experience and strengthening of claim reserves. 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.

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<sup>1</sup>:

USD millions	2020	2021
Line of business:		
Property	-582	-918
Casualty	456	473
Specialty	26	-255
Life and health	266	-27
<b>Total</b>	<b>166</b>	<b>-727</b>

<sup>1</sup> 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, in particular in the area of US asbestos and environmental liability.

At the end of 2021, the Group carried net reserves for US asbestos and environmental liabilities equal to USD 1 430 million. During 2021, the Group incurred net losses of USD 106 million and net paid losses of USD 102 million in relation to these liabilities. These amounts include unallocated loss adjustment expenses.

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 been incurred but not yet 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 programme 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. Loss portfolio transfers are presented prospectively as reliable historical claims information is not always obtainable, or the data is incomplete and of insufficient quality.

In the Property & Casualty Reinsurance segment as well as for the non-life business in the Corporate Solutions 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.

Life & Health contracts that are not expected to remain in force for an extended period are classified as short duration contracts. These provide insurance protection for a fixed short duration and their provisions may be subject to changes at the end of contract period, such as adjustments to the premium charged or the coverage provided. Examples of short duration contracts in the Life & Health Reinsurance segment include group life business, certain types of disability and long-term care contracts, group accident, and 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 Group provides no claims development information for the Group items segment as its short duration reserves are not material. This is also the case for Life & Health business in the Corporate Solutions segment, where short duration contracts mainly include disability business.

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

The Corporate Solutions business segment was created in 2012. Corporate Solutions related business written in Property & Casualty Reinsurance prior to 2012 is included in the net claims development information reported by this segment. All but an immaterial portion of claims arising from accident years prior to 2012 relate to accident years which are over ten years ago and therefore out of the required range of disclosure.

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 unpaid 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 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, and ultimate losses are derived using a blend of initial costing loss ratio and actual reported experience, with more weighting given to experience over time.

The initial reserving estimate uses a loss ratio projection method, where the projected loss ratio is generally the costing loss ratio, reflecting the underwriter's view of the risk. In the case of new information regarding loss trends, rate changes or a different underwriter's estimate, the projected loss ratio can be adjusted if approved by the Regional Reserving Committee. As experience develops, the most common standard reserving methods used are successively the Bornhuetter-Ferguson, Benktander and Chain Ladder methods. The Bornhuetter-Ferguson method assumes that the future claims experience is in line with the one anticipated by the costing loss ratio, used as an a priori loss ratio, and not based on claims experience. The Benktander method is a weighted average of the Bornhuetter-Ferguson and Chain Ladder methods, where the weighted average is linked to the reported development pattern. In other terms, this method mainly follows the Bornhuetter-Ferguson method in the early stages and the Chain Ladder later on, progressively giving more weight to the experience. The Chain Ladder method assumes past trends will be repeated and extrapolates the current position to ultimate using historical development trends.

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, such as an analysis of frequency and severity. 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, accident and health and similar Corporate Solutions lines, where the information is available. 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, also in Corporate Solutions (see also separate section "US asbestos and environmental claims exposure" on page 233). Reserving for non-traditional business is carried out on a deal-by-deal basis according to each deal's specifications. For large events, a separate process takes into consideration the relevant expertise from underwriting and claims functions in estimating the ultimate loss.

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.

#### Life and health re/insurance contracts

For the Life & Health business, liability for unpaid claims includes case reserves, IBNR, and provisions for disability income claims-in-payment. Estimates for case reserves allow for expected rates of decline for the not yet settled claims. IBNR claim reserves are calculated using generally accepted actuarial reserving techniques, such as Chain Ladder and Bornhuetter-Ferguson approaches, and assumptions as to the claims reporting patterns, initial expected ultimate claims, and weighting given to historical experience. Liability for disability income claims-in-payment is determined by calculating expected future claim payments using the assumed rate of termination of claims due to death or recovery.

#### 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.

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 recognised are included in the claim count.

For Corporate Solutions, claims frequency is displayed for direct business only, as individual claims information is generally not available for assumed and ceded business. Claims are counted individually per contract to produce the claims frequency table. For some direct business, summary reports are received, and multiple claims are booked under a single claim code; this is usually done at a programme, policy year, state, country and/or line of business level of detail. This approach may be applied to business which has a high volume of claim counts, but with only minor claims dollars associated with each claim.



**Property & Casualty Reinsurance – Property**

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										thereof IBNR	
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
<b>Accident year</b>												
2012	2 703	2 527	2 325	2 282	2 252	2 236	2 237	2 231	2 228		2 225	4
2013		3 145	3 154	2 978	2 893	2 869	2 854	2 849	2 840		2 860	-2
2014			2 726	2 560	2 380	2 348	2 346	2 333	2 345		2 331	-2
2015				2 838	2 767	2 596	2 563	2 522	2 504		2 513	-3
2016					3 924	3 652	3 351	3 343	3 315		3 339	4
2017						6 030	5 926	5 689	5 659		5 637	27
2018							4 584	5 021	4 765		4 687	18
2019								5 099	5 029		4 850	112
2020									7 218		6 949	1 540
2021											5 988	3 043
<b>Total</b>											<b>41 379</b>	<b>4 741</b>

<sup>1</sup> Unaudited

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

USD millions	Reporting year										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
<b>Accident year</b>											
2012	239	1 592	1 982	2 102	2 145	2 165	2 175	2 184	2 186	2 191	
2013		542	2 004	2 510	2 704	2 764	2 786	2 801	2 815	2 827	
2014			463	1 701	2 078	2 206	2 250	2 266	2 285	2 290	
2015				467	1 654	2 170	2 337	2 415	2 438	2 459	
2016					646	2 224	2 857	3 068	3 153	3 212	
2017						982	3 668	4 749	5 086	5 240	
2018							627	3 366	3 937	4 091	
2019								923	3 176	3 894	
2020									1 316	3 805	
2021										1 128	
<b>Total</b>										<b>31 137</b>	
All liabilities before 2012											235
<b>Liabilities for claims and claim adjustment expenses, net of reinsurance</b>											<b>10 477</b>

<sup>1</sup> Unaudited

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 <sup>1</sup> )	17.5%	49.8%	17.1%	5.7%	2.4%	1.0%	0.7%	0.4%	0.3%	0.2%

<sup>1</sup> Unaudited

The liability for unpaid claims and claim adjustment expenses for property in Property & Casualty Reinsurance shows positive development on most recent accident years. The 2017 - 2021 accident year claims incurred are higher due to natural catastrophes and 2020 was impacted by COVID-19, mainly due to Property Non-Damage Business Interruption and Event Cancellation policies.

**Property & Casualty Reinsurance – Liability, proportional**

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions		Reporting year									thereof	
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	IBNR	
2012	525	608	564	536	508	517	508	521	520	523	48	
2013		734	757	764	759	763	753	751	754	761	75	
2014			1 001	991	1 004	993	982	1 017	1 025	1 040	127	
2015				1 269	1 317	1 408	1 481	1 553	1 538	1 573	215	
2016					1 716	1 723	1 722	1 825	1 875	1 913	465	
2017						1 969	2 078	2 220	2 401	2 461	764	
2018							1 901	2 080	2 226	2 330	991	
2019								2 736	3 104	3 197	1 767	
2020									2 976	3 210	2 328	
2021										2 826	2 563	
<b>Total</b>										<b>19 834</b>	<b>9 343</b>	

<sup>1</sup> Unaudited

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

USD millions		Reporting year									thereof	
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	IBNR	
2012	14	118	186	245	299	357	392	428	432	443	48	
2013		16	130	237	352	435	510	564	595	617	75	
2014			25	161	297	436	571	667	749	810	127	
2015				37	213	429	659	910	1 089	1 165	215	
2016					49	101	399	667	905	1 088	465	
2017						52	256	548	1 009	1 255	764	
2018							53	312	576	855	991	
2019								86	426	784	1 767	
2020									132	409	2 328	
2021										106	2 563	
<b>Total</b>										<b>7 532</b>	<b>9 343</b>	
All liabilities before 2012											1 104	
<b>Liabilities for claims and claim adjustment expenses, net of reinsurance</b>											<b>13 406</b>	

<sup>1</sup> Unaudited

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 <sup>1</sup> )	2.7%	11.2%	13.0%	14.2%	12.1%	10.2%	6.6%	5.6%	1.8%	2.1%

<sup>1</sup> Unaudited

The increase in the incurred losses for accident years 2013 to 2021 is driven by volume increases of business being written. The increases in the incurred losses across accident years in reporting year 2021 are driven by US business with 2020 impacted by COVID-19 from exposures emanating from financial and economic downturn.

**Property & Casualty Reinsurance – Liability, non-proportional**

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions		Reporting year										
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	thereof IBNR	
2012	332	350	309	281	260	250	226	221	214	211	28	
2013		412	394	357	301	276	254	255	250	245	42	
2014			437	442	410	367	338	357	357	344	80	
2015				1 839	1 880	1 849	1 866	1 890	1 867	1 650	108	
2016					592	575	602	649	702	710	132	
2017						492	510	592	642	744	182	
2018							452	456	475	454	198	
2019								2 416	2 388	2 363	411	
2020									841	822	702	
2021										613	561	
Total										<b>8 156</b>	<b>2 444</b>	

<sup>1</sup> Unaudited

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

USD millions		Reporting year									
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
2012	-4	11	35	53	84	99	113	128	137	140	
2013		-2	11	37	60	83	108	133	144	162	
2014			-2	8	40	71	100	141	167	190	
2015				0	94	203	334	486	592	660	
2016					13	213	239	292	354	400	
2017						-2	18	48	124	219	
2018							-1	21	71	125	
2019								211	499	670	
2020									10	31	
2021										4	
Total										<b>2 601</b>	
All liabilities before 2012											3 866
<b>Liabilities for claims and claim adjustment expenses, net of reinsurance</b>											<b>9 421</b>

<sup>1</sup> Unaudited

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 <sup>1</sup> )	0.9%	7.9%	8.0%	9.2%	10.5%	8.4%	7.1%	6.1%	5.8%	1.4%

<sup>1</sup> Unaudited

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 Corporate Solutions. Liabilities before 2011 include reserves for historic US Asbestos and Environmental losses. The 2020 accident year was impacted by COVID-19 from exposures emanating from financial and economic downturn.

**Property & Casualty Reinsurance – Accident & Health**

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										2021	thereof IBNR
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
<b>Accident year</b>												
2012	325	335	320	310	307	301	299	294	286		283	17
2013		346	354	340	330	323	320	316	304		300	28
2014			300	334	325	314	303	302	287		285	38
2015				431	428	406	396	387	367		363	39
2016					589	623	618	583	577		559	103
2017						731	765	726	717		697	163
2018							723	811	807		780	136
2019								799	791		777	162
2020										892	886	258
2021											805	505
<b>Total</b>											<b>5 735</b>	<b>1 449</b>

<sup>1</sup> Unaudited

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

USD millions	Reporting year										2021	
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
<b>Accident year</b>												
2012	78	177	204	220	230	239	243	246	248		250	
2013		56	141	182	205	218	226	232	237		242	
2014			30	101	143	171	188	204	211		216	
2015				60	134	186	219	237	251		262	
2016					72	175	268	323	352		370	
2017						95	231	332	391		425	
2018							97	313	453		530	
2019								111	327		455	
2020										119	369	
2021											131	
<b>Total</b>											<b>3 250</b>	
All liabilities before 2012												2 673
<b>Liabilities for claims and claim adjustment expenses, net of reinsurance</b>												<b>5 158</b>

<sup>1</sup> Unaudited

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 <sup>1</sup> )	15.6%	25.6%	14.7%	8.6%	4.8%	3.7%	2.2%	1.5%	1.2%	0.7%

<sup>1</sup> Unaudited

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 2020 year impacted by COVID-19 from losses emanating from adverse health impacts. The 2011 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	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	thereof IBNR	
2012	1 540	1 530	1 513	1 501	1 491	1 490	1 487	1 487	1 490	1 491	18	
2013		1 598	1 573	1 578	1 551	1 544	1 540	1 539	1 540	1 541	10	
2014			2 077	2 037	2 035	2 017	2 007	2 004	2 002	2 003	-3	
2015				1 964	1 955	1 957	1 960	1 960	1 968	1 972	15	
2016					2 522	2 637	2 686	2 688	2 693	2 706	24	
2017						2 398	2 412	2 398	2 410	2 421	82	
2018							2 056	2 089	2 068	2 064	130	
2019								2 059	2 034	2 068	250	
2020									1 882	1 931	437	
2021										1 915	983	
Total										<b>20 112</b>	<b>1 946</b>	

<sup>1</sup> Unaudited

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

USD millions		Reporting year									
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
2012	497	1 150	1 316	1 366	1 397	1 418	1 430	1 440	1 446	1 453	
2013		596	1 207	1 393	1 440	1 471	1 486	1 495	1 504	1 509	
2014			778	1 532	1 786	1 865	1 901	1 922	1 934	1 940	
2015				819	1 467	1 715	1 818	1 864	1 889	1 905	
2016					833	1 844	2 198	2 381	2 487	2 553	
2017						764	1 528	1 866	2 041	2 158	
2018							622	1 338	1 584	1 729	
2019								665	1 297	1 553	
2020									620	1 190	
2021										649	
Total										<b>16 639</b>	
All liabilities before 2012											299
<b>Liabilities for claims and claim adjustment expenses, net of reinsurance</b>											<b>3 772</b>

<sup>1</sup> Unaudited

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 <sup>1</sup> )	34.3%	35.3%	12.5%	5.2%	2.8%	1.4%	0.7%	0.5%	0.4%	0.5%

<sup>1</sup> Unaudited

The increase in the incurred losses from accident years 2012 to 2016 is driven by new business volume across all regions with the 2020 accident year seeing mainly indirect (frequency) impacts from 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 on European business.

**Property & Casualty Reinsurance – Motor, non-proportional**

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										2021	thereof IBNR
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
<b>Accident year</b>												
2012	340	357	336	320	321	303	312	307	310		295	39
2013		439	462	464	447	432	438	437	442		444	62
2014			413	447	442	441	434	412	409		404	54
2015				392	415	451	446	459	457		454	67
2016					474	593	556	550	537		521	91
2017						586	617	604	611		603	130
2018							498	539	546		534	143
2019								1 201	1 213		1 196	205
2020										RSI <sup>1</sup>	528	311
2021											549	437
<b>Total</b>											<b>5 528</b>	<b>1 539</b>

<sup>1</sup> Unaudited

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

USD millions	Reporting year										2021
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
<b>Accident year</b>											
2012	2	25	50	85	112	137	159	171	178		184
2013		7	85	149	195	221	248	265	279		286
2014			4	60	105	144	189	218	238		252
2015				-1	34	92	158	204	234		265
2016					8	65	126	181	241		272
2017						9	59	126	203		241
2018							4	36	96		144
2019								92	304		490
2020										RSI <sup>1</sup>	41
2021											9
<b>Total</b>											<b>2 184</b>
All liabilities before 2012											2 849
<b>Liabilities for claims and claim adjustment expenses, net of reinsurance</b>											<b>6 193</b>

<sup>1</sup> Unaudited

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 <sup>1</sup> )	1.7%	10.8%	12.1%	11.3%	9.0%	6.9%	5.8%	3.6%	2.0%	2.0%

<sup>1</sup> Unaudited

The increase in incurred losses for accident year 2019 compared to other years is due to an increase in volume of business written and the 2020 accident year seeing mainly indirect (frequency) impacts from COVID-19.

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.

**Property & Casualty Reinsurance – Specialty**

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions		Reporting year										
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	thereof IBNR	
2012	951	1 008	1 028	1 011	1 010	998	995	990	982	985	9	
2013		1 096	1 021	982	946	936	914	902	905	904	16	
2014			1 107	1 096	996	970	955	959	941	931	23	
2015				1 250	1 222	1 205	1 195	1 194	1 215	1 215	36	
2016					1 292	1 278	1 229	1 230	1 214	1 204	66	
2017						1 617	1 537	1 408	1 375	1 391	95	
2018							1 649	1 738	1 707	1 620	138	
2019								1 757	1 918	2 000	401	
2020									1 839	1 803	715	
2021										1 692	1 113	
Total										<b>13 745</b>	<b>2 612</b>	

<sup>1</sup> Unaudited

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

USD millions		Reporting year									
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
2012	127	444	680	771	828	871	905	924	930	936	
2013		148	418	601	711	766	803	826	839	844	
2014			175	409	589	687	744	783	806	815	
2015				136	390	694	856	957	1 012	1 042	
2016					143	479	724	891	981	1 027	
2017						183	581	863	1 029	1 102	
2018							185	647	961	1 116	
2019								280	705	1 029	
2020									302	655	
2021										192	
Total										<b>8 758</b>	
All liabilities before 2012											596
<b>Liabilities for claims and claim adjustment expenses, net of reinsurance</b>											<b>5 583</b>

<sup>1</sup> Unaudited

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 <sup>1</sup> )	13.8%	26.0%	20.6%	11.5%	6.5%	4.2%	2.7%	1.4%	0.6%	0.6%

<sup>1</sup> Unaudited

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 2021 accident years, claims incurred is higher due to natural catastrophes, with 2020 accident year impacted by COVID-19, due to higher default probability than expected for Credit & Surety and coverage for Non-Damage Business Interruption for Engineering.

**Corporate Solutions**

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										2021	Cumulative thereof reported claims IBNR	Cumulative number of reported claims (in nominals)
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021			
<b>Accident year</b>													
2012	1 303	1 231	1 157	1 124	1 121	1 178	1 160	1 205	1 202		1 208	31	13 071
2013		1 602	1 581	1 511	1 427	1 424	1 414	1 387	1 400		1 426	72	26 496
2014			1 838	1 780	1 708	1 713	1 684	1 613	1 593		1 596	137	21 798
2015				1 891	2 062	2 126	2 096	1 913	1 876		1 908	141	18 627
2016					2 016	2 103	2 142	2 132	2 125		2 132	236	17 976
2017						3 013	3 241	2 991	3 013		2 975	267	21 061
2018							2 695	2 623	2 655		2 626	388	26 533
2019								2 793	2 639		2 622	624	22 096
2020									3 359		2 856	957	16 714
2021											2 623	1 349	9 196
<b>Total</b>											<b>21 972</b>	<b>4 202</b>	<b>193 568</b>

<sup>1</sup> Unaudited

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

USD millions	Reporting year										2021
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
<b>Accident year</b>											
2012	183	559	721	815	904	976	1 009	1 039	1 061		1 086
2013		273	669	939	1 096	1 164	1 241	1 289	1 316		1 334
2014			272	831	1 123	1 267	1 357	1 456	1 474		1 504
2015				351	906	1 302	1 500	1 635	1 725		1 748
2016					369	1 139	1 391	1 660	1 734		1 847
2017						381	1 507	2 114	2 369		2 547
2018							416	1 422	1 900		2 093
2019								526	1 228		1 504
2020									576		1 261
2021											329
<b>Total</b>											<b>15 253</b>
All liabilities before 2012											372
<b>Liabilities for claims and claim adjustment expenses, net of reinsurance</b>											<b>7 091</b>

<sup>1</sup> Unaudited

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

Years	1	2	3	4	5	6	7	8	9	10
Corporate Solutions (RSI <sup>1</sup> )	16.9%	31.8%	16.5%	9.5%	5.7%	5.5%	2.1%	2.1%	1.5%	2.1%

<sup>1</sup> Unaudited

The current accident year claims burden came back to normality after last year's increase due to COVID-19, which has mainly impacted Property (including Event Cancellation and Business Interruption) and Credit & Surety.

Reserves on the US liability line of business on accident years 2012-2019 were reduced by a Loss Portfolio Transfer to P&C Reinsurance of USD 1.2 billion in the financial year 2019. In addition, the impact of unfavourable development across all lines of business for accident years 2012-2018 was reduced by recoveries under an Adverse Development Cover with P&C Reinsurance in place since the second half of the financial year 2019. For the financial year 2021, there were movements under both the Loss Portfolio Transfer and the Adverse Development Cover mainly in the property and casualty lines of business.

P&C Reinsurance reports both the Adverse Development Cover and the Loss Portfolio Transfer under accident year 2019 (see "Property & Casualty Reinsurance – Liability, non-proportional" on page 238).



**Life & Health Reinsurance, long tail**

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										2021	Cumulative number of reported claims (in nominals) thereof IBNR	
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021			
<b>Accident year</b>													
2012	269	359	362	386	350	353	350	364	365		370	25	9 896
2013		484	476	474	438	437	438	463	462		455	14	12 628
2014			474	433	412	413	436	460	468		465	21	14 701
2015				405	439	424	425	456	465		458	22	17 583
2016					426	442	428	457	472		462	58	15 272
2017						434	440	462	484		461	73	18 238
2018							404	436	450		445	113	18 084
2019								375	457		405	141	15 171
2020									175		140	73	6 640
2021											191	162	3 231
<b>Total</b>											<b>3 852</b>	<b>702</b>	<b>131 444</b>

<sup>1</sup> Unaudited

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

USD millions	Reporting year										2021
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
<b>Accident year</b>											
2012	27	87	139	177	210	232	251	267	281		291
2013		37	121	185	245	285	312	333	354		369
2014			32	108	197	258	294	323	349		368
2015				35	106	187	237	275	309		334
2016					13	86	158	211	254		284
2017						12	75	161	232		273
2018							12	74	161		212
2019								12	78		149
2020									5		33
2021											5
<b>Total</b>											<b>2 318</b>
All liabilities before 2012											300
<b>Liabilities for claims and claim adjustment expenses, net of reinsurance</b>											<b>1 834</b>

<sup>1</sup> Unaudited

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 <sup>1</sup> )	4.7%	16.2%	17.0%	12.3%	8.7%	6.4%	5.2%	4.3%	3.5%	2.7%

<sup>1</sup> Unaudited

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

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 and Corporate Solutions which could not be allocated on a consistent basis to disaggregation categories or specific accident years.

As of 31 December

USD millions	2021
<b>Net outstanding liabilities</b>	
Property & Casualty Reinsurance	
Property	10 477
Liability, proportional	13 406
Liability, non-proportional	9 421
Accident & Health	5 158
Motor, proportional	3 772
Motor, non-proportional	6 193
Specialty	5 583
Corporate Solutions	7 091
Life & Health Reinsurance, long tail	1 834
<b>Total net undiscounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable</b>	<b>62 935</b>
Discounting impact on (Life & Health Reinsurance) short duration contracts	-249
Impact of acquisition accounting	-384
<b>Total net discounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable</b>	<b>62 302</b>
Other short duration contract lines	4 331
<b>Total net discounted outstanding short duration liabilities</b>	<b>66 633</b>
Allocated reinsurance recoverables on unpaid claims:	
Property & Casualty Reinsurance	
Property	701
Liability, proportional	244
Liability, non-proportional	250
Accident & Health	235
Motor, proportional	45
Motor, non-proportional	204
Specialty	358
Corporate Solutions	5 163
Consolidation	-4 628
Impact of acquisition accounting	-66
Other short duration contract lines	531
<b>Total short duration reinsurance recoverable on outstanding liabilities</b>	<b>3 037</b>
Exclusions:	
Unallocated claim adjustment expenses	1 278
Long duration contracts	13 148
<b>Total other reconciling items</b>	<b>14 426</b>
<b>Total unpaid claims and claim adjustment expenses</b>	<b>84 096</b>

**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	2020	2021
Carrying amount of discounted claims	1 374	1 103
Aggregate amount of the discount	-311	-249
Interest accretion <sup>1</sup>	29	29
Range of interest rates	3.0–3.2%	3.1–3.2%

<sup>1</sup> 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:

2020 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Total
Opening balance as of 1 January	2 613	4 529	494		202	7 838
Opening balance as of 1 January classified as held for sale				657		657
Deferred	5 016	619	573		142	6 350
Effect of acquisitions/disposals and retrocessions		-2		-595	2	-595
Amortisation	-5 103	-417	-648	-46	-65	-6 279
Effect of foreign currency translation and other changes	50	171	7	-16	47	259
<b>Closing balance</b>	<b>2 576</b>	<b>4 900</b>	<b>426</b>	<b>0</b>	<b>328</b>	<b>8 230</b>

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Total
Opening balance as of 1 January	2 576	4 900	426		328	8 230
Deferred	5 367	501	738		250	6 856
Effect of acquisitions/disposals and retrocessions		-38				-38
Amortisation	-5 359	-496	-679		-164	-6 698
Effect of foreign currency translation and other changes	-46	-150	-5		-7	-208
<b>Closing balance</b>	<b>2 538</b>	<b>4 717</b>	<b>480</b>	<b>0</b>	<b>407</b>	<b>8 142</b>

Retroceded DAC arise on retrocession of reinsurance portfolios, including reinsurance undertaken as part of a securitisation.

As of 31 December, the PVFP was as follows:

2020 USD millions	Life & Health Reinsurance	Life Capital		Group items	Total
		Positive PVFP	Negative PVFP		
Opening balance as of 1 January	577			465	1 042
Opening balance as of 1 January classified as held for sale		1 156	-476	680	680
Effect of acquisitions/disposals and retrocessions		-912	444	-468	-470
Amortisation	-99	-254	33	-221	-394
Interest accrued on unamortised PVFP	28	36	-10	26	91
Effect of change in unrealised gains/losses				-8	-8
Effect of foreign currency translation	4	-26	9	-17	-13
<b>Closing balance</b>	<b>510</b>	<b>0</b>	<b>0</b>	<b>418</b>	<b>928</b>

2021 USD millions	Life & Health Reinsurance	Life Capital		Group items	Total
		Positive PVFP	Negative PVFP		
Opening balance as of 1 January	510			418	928
Effect of acquisitions/disposals and retrocessions	-7				-7
Amortisation	-76			-55	-131
Interest accrued on unamortised PVFP	5			37	42
Effect of change in unrealised gains/losses				5	5
Effect of foreign currency translation	-1				-1
<b>Closing balance</b>	<b>431</b>	<b>0</b>	<b>0</b>	<b>405</b>	<b>836</b>

Retroceded PVFP arises on retrocession of reinsurance portfolios, including reinsurance undertaken as part of a securitisation.

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

## 7 Investments

### Investment income

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

USD millions	2020	2021
Fixed income securities	2 251	1 787
Equity securities	92	133
Policy loans, mortgages and other loans	127	132
Investment real estate	241	246
Short-term investments	36	19
Other current investments	103	141
Share in earnings of equity-accounted investees	-51	806
Cash and cash equivalents	25	
Net result from deposit-accounted contracts	128	20
Deposits with ceding companies	421	482
<b>Gross investment income</b>	<b>3 373</b>	<b>3 766</b>
Investment expenses	-378	-391
Interest charged for funds held	-7	-2
<b>Net investment income – non-participating business</b>	<b>2 988</b>	<b>3 373</b>

Dividends received from investments accounted for using the equity method were USD 124 million and USD 236 million for 2020 and 2021, respectively.

Share in earnings of equity-accounted investees included impairments of the carrying amount of equity-accounted investees of USD 5 million and nil for 2020 and 2021, respectively.

### Realised gains and losses

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

USD millions	2020	2021
Fixed income securities available-for-sale:		
Gross realised gains	1 676	599
Gross realised losses	-256	-271
Other-than-temporary impairments	-29	-1
Net realised investment gains/losses on equity securities	-87	47
Change in net unrealised investment gains/losses on equity securities	782	-33
Net realised investment gains/losses on trading securities	86	-53
Change in net unrealised investment gains/losses on trading securities	-33	-102
Net realised/unrealised gains/losses on other investments	-41	365
Net realised/unrealised gains/losses on insurance-related activities	40	20
Foreign exchange gains/losses	-163	-34
Loss related to sale of ReAssure	-245	
<b>Net realised investment gains/losses – non-participating business</b>	<b>1 730</b>	<b>537</b>

Net realised/unrealised gains/losses on insurance-related activities included impairments of nil and USD 9 million for 2020 and 2021, respectively.

### Investment result – unit-linked and with-profit business

For unit-linked contracts, the investment risk is borne by the policyholder. For with-profit contracts, the majority of the investment risk is also borne by the policyholder, although there are certain guarantees that limit the downside risk for the policyholder, and a certain proportion of the returns may be retained by the Group (typically 10%).

Net investment result on unit-linked and with-profit business credited to policyholders was as follows:

USD millions	2020		2021	
	Unit-linked	With-profit	Unit-linked	With-profit
Investment income – fixed income securities	29	50		
Investment income – equity securities	401	27	23	
Investment income – other	5	3	–1	
<b>Total investment income – unit-linked and with-profit business</b>	<b>435</b>	<b>80</b>	<b>22</b>	<b>0</b>
Realised gains/losses – fixed income securities	92	72		
Realised gains/losses – equity securities	–2 566	–283	41	
Realised gains/losses – other	–8	–9		
<b>Total realised gains/losses – unit-linked and with-profit business</b>	<b>–2 482</b>	<b>–220</b>	<b>41</b>	<b>0</b>
<b>Total net investment result – unit-linked and with-profit business</b>	<b>–2 047</b>	<b>–140</b>	<b>63</b>	<b>0</b>

### 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	2020	2021
Balance as of 1 January	61	46
Credit losses for which an other-than-temporary impairment was not previously recognised	18	5
Reductions for securities sold during the period	–32	–10
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		5
Impact of increase in cash flows expected to be collected	–2	–1
Impact of foreign exchange movements	1	–1
<b>Balance as of 31 December</b>	<b>46</b>	<b>44</b>

**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:

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	10 915	693	-18		11 590
US Agency securitised products	6 575	214	-10		6 779
States of the United States and political subdivisions of the states	1 444	248			1 692
United Kingdom	4 206	841	-5		5 042
Germany	3 038	494	-1		3 531
Canada	2 179	223	-13		2 389
France	2 551	570	-1		3 120
China	1 704	23	-6		1 721
Other	10 571	821	-38		11 354
<b>Total</b>	<b>43 183</b>	<b>4 127</b>	<b>-92</b>		<b>47 218</b>
Corporate debt securities	27 538	3 084	-35		30 587
Mortgage- and asset-backed securities	3 141	157	-22	-1	3 275
<b>Fixed income securities available-for-sale</b>	<b>73 862</b>	<b>7 368</b>	<b>-149</b>	<b>-1</b>	<b>81 080</b>

2021 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	14 969	360	-98		15 231
US Agency securitised products	2 981	46	-25		3 002
States of the United States and political subdivisions of the states	1 306	203			1 509
United Kingdom	4 158	367	-62		4 463
Germany	2 758	275	-23		3 010
Canada	2 874	120	-12		2 982
France	2 403	205	-49		2 559
China	2 286	26			2 312
Other	10 603	376	-114		10 865
<b>Total</b>	<b>44 338</b>	<b>1 978</b>	<b>-383</b>		<b>45 933</b>
Corporate debt securities	33 952	2 019	-220	-1	35 750
Mortgage- and asset-backed securities	3 940	91	-22	-7	4 002
<b>Fixed income securities available-for-sale</b>	<b>82 230</b>	<b>4 088</b>	<b>-625</b>	<b>-8</b>	<b>85 685</b>

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 2020 and 2021.

2020 USD millions	Less than 12 months		12 months or more		Total	
	Fair value	Unrealised losses	Fair value	Unrealised losses	Fair value	Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	1 315	18			1 315	18
US Agency securitised products	382	10	9	0	391	10
States of the United States and political subdivisions of the states	8	0			8	0
United Kingdom	230	5			230	5
Germany	13	0	27	1	40	1
Canada	61	8	66	5	127	13
France	41	0	28	1	69	1
China	738	6			738	6
Other	1 642	29	108	9	1 750	38
<b>Total</b>	<b>4 430</b>	<b>76</b>	<b>238</b>	<b>16</b>	<b>4 668</b>	<b>92</b>
Corporate debt securities	1 072	31	147	4	1 219	35
Mortgage- and asset-backed securities	402	9	173	14	575	23
<b>Total</b>	<b>5 904</b>	<b>116</b>	<b>558</b>	<b>34</b>	<b>6 462</b>	<b>150</b>

2021 USD millions	Less than 12 months		12 months or more		Total	
	Fair value	Unrealised losses	Fair value	Unrealised losses	Fair value	Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	9 635	74	582	24	10 217	98
US Agency securitised products	1 325	24	36	1	1 361	25
States of the United States and political subdivisions of the states	20	0			20	0
United Kingdom	830	25	388	37	1 218	62
Germany	766	20	39	3	805	23
Canada	1 633	10	40	2	1 673	12
France	1 130	45	48	4	1 178	49
China	20	0	39	0	59	0
Other	4 612	66	636	48	5 248	114
<b>Total</b>	<b>19 971</b>	<b>264</b>	<b>1 808</b>	<b>119</b>	<b>21 779</b>	<b>383</b>
Corporate debt securities	12 181	188	701	33	12 882	221
Mortgage- and asset-backed securities	1 349	16	70	13	1 419	29
<b>Total</b>	<b>33 501</b>	<b>468</b>	<b>2 579</b>	<b>165</b>	<b>36 080</b>	<b>633</b>

**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 2020 and 2021, USD 20 219 million and USD 25 004 million, respectively, of fixed income securities available-for-sale were callable.

USD millions	Amortised cost or cost	2020	Amortised cost or cost	2021
		Estimated fair value		Estimated fair value
Due in one year or less	8 806	8 863	6 119	6 142
Due after one year through five years	18 298	19 040	34 770	35 028
Due after five years through ten years	14 512	15 696	13 612	14 171
Due after ten years	29 942	35 035	24 668	27 216
Mortgage- and asset-backed securities with no fixed maturity	2 304	2 446	3 061	3 128
<b>Total fixed income securities available-for-sale</b>	<b>73 862</b>	<b>81 080</b>	<b>82 230</b>	<b>85 685</b>



### 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 and with-profit business) as of 31 December were as follows:

USD millions	2020	2021
Debt securities issued by governments and government agencies	1 907	1 272
Mortgage- and asset-backed securities	31	28
<b>Fixed income securities trading – non-participating business</b>	<b>1 938</b>	<b>1 300</b>
<b>Equity securities at fair value through earnings – non-participating business</b>	<b>4 899</b>	<b>3 978</b>

### Investments held for unit-linked and with-profit business

As of 31 December 2020 and 31 December 2021, the carrying amounts of investments held for unit-linked business consist of equity securities at fair value through earnings of USD 463 million and USD 468 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 and with-profit business) were as follows:

USD millions	2020		2021	
	Carrying value	Fair value	Carrying value	Fair value
Policy loans	43	43	34	34
Mortgage loans	1 410	1 458	1 645	1 672
Other loans	1 862	1 906	2 264	2 302
Investment real estate	2 602	5 118	2 871	5 544

Depreciation expense related to investment real estate was USD 67 million and USD 63 million for 2020 and 2021, respectively.

Accumulated depreciation on investment real estate totalled USD 779 million and USD 786 million as of 31 December 2020 and 2021, respectively. Investment real estate held by the Group includes residential and commercial investment real estate.

Substantially all mortgage, policy and other loan receivables are secured by buildings, land or the underlying policies. The loans are spread across numerous counterparties largely based in the US and UK with no specific high risk regarding credit concentration.

### Maturity of lessor cash flows

As of 31 December 2021, 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	211
Between one year and two years	188
Between two years and three years	158
Between three years and four years	129
Between four years and five years	99
After five years	398
<b>Total cash flows</b>	<b>1 183</b>

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 2020 and 2021 was USD 27 million and USD 25 million, respectively.

**Other financial assets and liabilities by measurement category**

As of 31 December 2020 and 2021, "Other invested assets" and "Accrued expenses and other liabilities" by measurement category were as follows:

2020 USD millions	Fair value	Investments measured at net asset value as practical expedient	Amortised cost or cost	Equity-accounted	Not in scope <sup>1</sup>	Total
<b>Other invested assets</b>						
Derivative financial instruments	266					266
Reverse repurchase agreements			3 002			3 002
Securities lending/borrowing	1 636		282			1 918
Equity-accounted investments	287			2 503		2 790
Other	302	1 026	1 010			2 338
<b>Other invested assets</b>	<b>2 491</b>	<b>1 026</b>	<b>4 294</b>	<b>2 503</b>	<b>0</b>	<b>10 314</b>
<b>Accrued expenses and other liabilities</b>						
Derivative financial instruments	495					495
Repurchase agreements			248			248
Securities lending	1 638		84			1 722
Securities sold short	1 353					1 353
Other			1 959		2 316	4 275
<b>Accrued expenses and other liabilities</b>	<b>3 486</b>	<b>0</b>	<b>2 291</b>	<b>0</b>	<b>2 316</b>	<b>8 093</b>

2021 USD millions	Fair value	Investments measured at net asset value as practical expedient	Amortised cost or cost	Equity-accounted	Not in scope <sup>1</sup>	Total
<b>Other invested assets</b>						
Derivative financial instruments	164					164
Reverse repurchase agreements			2 336			2 336
Securities lending/borrowing	1 333		122			1 455
Equity-accounted investments	398			2 717		3 115
Other	376	1 470	963			2 809
<b>Other invested assets</b>	<b>2 271</b>	<b>1 470</b>	<b>3 421</b>	<b>2 717</b>	<b>0</b>	<b>9 879</b>
<b>Accrued expenses and other liabilities</b>						
Derivative financial instruments	435					435
Repurchase agreements			11			11
Securities lending	1 334		86			1 420
Securities sold short	1 032					1 032
Other			1 512		2 390	3 902
<b>Accrued expenses and other liabilities</b>	<b>2 801</b>	<b>0</b>	<b>1 609</b>	<b>0</b>	<b>2 390</b>	<b>6 800</b>

<sup>1</sup> 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:

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	1 609	-1 343	266	-3	263
Reverse repurchase agreements	4 945	-1 943	3 002	-3 002	0
Securities borrowing	292	-10	282	-280	2
<b>Total</b>	<b>6 846</b>	<b>-3 296</b>	<b>3 550</b>	<b>-3 285</b>	<b>265</b>

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	-1 775	1 280	-495	303	-192
Repurchase agreements	-1 891	1 643	-248	248	0
Securities lending	-2 032	310	-1 722	1 652	-70
<b>Total</b>	<b>-5 698</b>	<b>3 233</b>	<b>-2 465</b>	<b>2 203</b>	<b>-262</b>

2021 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	1 371	-1 207	164		<b>164</b>
Reverse repurchase agreements	4 398	-2 062	2 336	-2 336	<b>0</b>
Securities borrowing	260	-138	122	-122	<b>0</b>
<b>Total</b>	<b>6 029</b>	<b>-3 407</b>	<b>2 622</b>	<b>-2 458</b>	<b>164</b>

2021 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	-1 550	1 115	-435	181	<b>-254</b>
Repurchase agreements	-1 778	1 767	-11	11	<b>0</b>
Securities lending	-1 853	433	-1 420	1 351	<b>-69</b>
<b>Total</b>	<b>-5 181</b>	<b>3 315</b>	<b>-1 866</b>	<b>1 543</b>	<b>-323</b>

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", "Investments for unit-linked and with-profit business" and "Accrued expenses and other liabilities".

**Assets pledged**

As of 31 December 2020 and 2021, investments with a carrying value of USD 5 858 million and USD 5 974 million, respectively, were on deposit with regulatory agencies in accordance with local requirements, of which USD 249 million and USD 244 million, respectively, were cash and cash equivalents. As of 31 December 2020 and 2021, investments with a carrying value of USD 15 424 million and USD 15 006 million, respectively, were placed on deposit or pledged to secure certain reinsurance liabilities, including pledged investments in subsidiaries, of which USD 259 million and USD 119 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 2020 and 2021, investments with a carrying value of USD 795 million and USD 463 million, respectively, were placed on deposit or pledged to secure certain derivative and debt liabilities.

As of 31 December 2020 and 2021, securities of USD 13 787 million and USD 16 775 million, respectively, were transferred to third parties under securities lending transactions and repurchase agreements on a fully collateralised basis. Corresponding liabilities of USD 1 970 million and USD 1 431 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 2020 and 2021, a real estate portfolio with a carrying value of USD 200 million and USD 190 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 2020 and 2021, the fair value of the equity securities, government and corporate debt securities received as collateral was USD 4 837 million and USD 5 494 million, respectively. Of this, the amount that was sold or repledged as of 31 December 2020 and 2021 was USD 1 341 million and USD 1 002 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 2020 and 2021, 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.

2020 USD millions	Remaining contractual maturity of the agreements				Total
	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	
<b>Repurchase agreements</b>					
Debt securities issued by governments and government agencies	197	1 490	54		1 741
Corporate debt securities	2	148			150
<b>Total repurchase agreements</b>	<b>199</b>	<b>1 638</b>	<b>54</b>	<b>0</b>	<b>1 891</b>
<b>Securities lending</b>					
Debt securities issued by governments and government agencies	1 099		303	551	1 953
Corporate debt securities	79				79
<b>Total securities lending</b>	<b>1 178</b>	<b>0</b>	<b>303</b>	<b>551</b>	<b>2 032</b>
<b>Gross amount of recognised liabilities for repurchase agreements and securities lending</b>					<b>3 923</b>

2021 USD millions	Remaining contractual maturity of the agreements				Total
	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	
<b>Repurchase agreements</b>					
Debt securities issued by governments and government agencies	2	1 614			1 616
Corporate debt securities	2	160			162
<b>Total repurchase agreements</b>	<b>4</b>	<b>1 774</b>	<b>0</b>	<b>0</b>	<b>1 778</b>
<b>Securities lending</b>					
Debt securities issued by governments and government agencies	794		445	402	1 641
Corporate debt securities	73	139			212
<b>Total securities lending</b>	<b>867</b>	<b>139</b>	<b>445</b>	<b>402</b>	<b>1 853</b>
<b>Gross amount of recognised liabilities for repurchase agreements and securities lending</b>					<b>3 631</b>

The programme is structured in a conservative manner with 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 2021, 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 Group items.

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

### Valuation techniques

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

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

Values of mortgage- and asset-backed securities are obtained both from third party pricing vendors and through quoted prices, some of which may be based on the prices of comparable securities with similar structural and collateral features. Values of certain 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:

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 <sup>1</sup>	Total
<b>Assets</b>					
Fixed income securities held for proprietary investment purposes	11 264	70 571	1 183		83 018
Debt securities issued by US government and government agencies	11 264	2 194			13 458
US Agency securitised products		7 021			7 021
Debt securities issued by non-US governments and government agencies		28 646			28 646
Corporate debt securities		29 404	1 183		30 587
Mortgage- and asset-backed securities		3 306			3 306
Equity securities held for proprietary investment purposes	4 899				4 899
Equity securities backing unit-linked and with-profit business	463				463
Short-term investments held for proprietary investment purposes	6 846	9 236			16 082
Derivative financial instruments	5	1 372	232	-1 343	266
Interest rate contracts		494			494
Foreign exchange contracts		215			215
Equity contracts	4	653	201		858
Credit contracts		10			10
Other contracts	1		31		32
Other invested assets	551	1 085	588		2 224
Funds held by ceding companies		172			172
<b>Total assets at fair value</b>	<b>24 028</b>	<b>82 436</b>	<b>2 003</b>	<b>-1 343</b>	<b>107 124</b>
<b>Liabilities</b>					
Derivative financial instruments	-12	-1 422	-341	1 280	-495
Interest rate contracts		-444	-2		-446
Foreign exchange contracts		-410			-410
Equity contracts	-10	-331	-23		-364
Credit contracts		-237			-237
Other contracts	-2		-316		-318
Liabilities for life and health policy benefits			-98		-98
Accrued expenses and other liabilities	-891	-2 099			-2 990
<b>Total liabilities at fair value</b>	<b>-903</b>	<b>-3 521</b>	<b>-439</b>	<b>1 280</b>	<b>-3 583</b>

<sup>1</sup> 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.

2021 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 <sup>1</sup>	Total
<b>Assets</b>					
Fixed income securities held for proprietary investment purposes	14 998	70 675	1 312		86 985
Debt securities issued by US government and government agencies	14 998	1 939			16 937
US Agency securitised products		3 100			3 100
Debt securities issued by non-US governments and government agencies		27 168			27 168
Corporate debt securities		34 438	1 312		35 750
Mortgage- and asset-backed securities		4 030			4 030
Equity securities held for proprietary investment purposes	3 358	620			3 978
Equity securities backing unit-linked and with-profit business	468				468
Short-term investments held for proprietary investment purposes	2 495	5 967			8 462
Derivative financial instruments	12	1 273	86	-1 207	164
Interest rate contracts	1	433			434
Foreign exchange contracts		331			331
Equity contracts	9	504	60		573
Credit contracts		5			5
Other contracts	2		26		28
Other invested assets	1 114	486	507		2 107
Funds held by ceding companies		172			172
<b>Total assets at fair value</b>	<b>22 445</b>	<b>79 193</b>	<b>1 905</b>	<b>-1 207</b>	<b>102 336</b>
<b>Liabilities</b>					
Derivative financial instruments	-3	-1 275	-272	1 115	-435
Interest rate contracts		-459	-2		-461
Foreign exchange contracts		-421			-421
Equity contracts	-1	-302	-9		-312
Credit contracts		-93			-93
Other contracts	-2		-261		-263
Liabilities for life and health policy benefits			-83		-83
Accrued expenses and other liabilities	-1 080	-1 285			-2 365
<b>Total liabilities at fair value</b>	<b>-1 083</b>	<b>-2 560</b>	<b>-355</b>	<b>1 115</b>	<b>-2 883</b>

<sup>1</sup>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:

2020 USD millions	Fixed income securities	Equity securities	Derivative assets	Investment real estate	Other invested assets	Total assets	Derivative liabilities	Liabilities for life and health policy benefits	Total liabilities
<b>Assets and liabilities</b>									
Balance as of 1 January	1 696	0	225	143	411	2 475	-465	-91	-556
Realised/unrealised gains/losses:									
Included in net income <sup>1</sup>	79		14	1	-9	85	-8	-8	-16
Included in other comprehensive income <sup>2</sup>	-2					-2		1	1
Purchases	367				19	386			0
Issuances						0	-102		-102
Sales	-7			-14	-47	-68	6		6
Settlements	-48		-11			-59	127		127
Transfers into level 3		204	3		211	418			0
Transfers out of level 3						0			0
Disposals	-945	-204		-134		-1 283	104		104
Impact of foreign exchange movements	43		1	4	3	51	-3		-3
<b>Closing balance as of 31 December</b>	<b>1 183</b>	<b>0</b>	<b>232</b>	<b>0</b>	<b>588</b>	<b>2 003</b>	<b>-341</b>	<b>-98</b>	<b>-439</b>

<sup>1</sup> Fair value changes are reported in "Net realised investment gains/losses – non-participating business".

<sup>2</sup> 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".

2021 USD millions	Fixed income securities	Equity securities	Derivative assets	Investment real estate	Other invested assets	Total assets	Derivative liabilities	Liabilities for life and health policy benefits	Total liabilities
<b>Assets and liabilities</b>									
Balance as of 1 January	1 183	0	232	0	588	2 003	-341	-98	-439
Realised/unrealised gains/losses:									
Included in net income <sup>1</sup>	1		-93		-7	-99	121	16	137
Included in other comprehensive income <sup>2</sup>	-42					-42		-1	-1
Purchases	202		3		81	286			0
Issuances						0	-86		-86
Sales	-2		-3		-147	-152	1		1
Settlements	-20		-53			-73	33		33
Transfers into level 3						0			0
Transfers out of level 3					-8	-8			0
Disposals						0			0
Impact of foreign exchange movements	-10					-10			0
<b>Closing balance as of 31 December</b>	<b>1 312</b>	<b>0</b>	<b>86</b>	<b>0</b>	<b>507</b>	<b>1 905</b>	<b>-272</b>	<b>-83</b>	<b>-355</b>

<sup>1</sup> Fair value changes are reported in "Net realised investment gains/losses – non-participating business".

<sup>2</sup> 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	2020	2021
Gains/losses included in net income for the period	69	38
Whereof change in unrealised gains/losses relating to assets and liabilities still held at the reporting date	-16	-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	2020 Fair value	2021 Fair value	Valuation technique	Unobservable input	Range (weighted average <sup>1</sup> )
<b>Assets</b>					
Corporate debt securities	1 183	<b>1 312</b>			
Infrastructure loans	701	779	Discounted cash flow model	Valuation spread	65–305 bps (203 bps)
Private placement corporate debt	440	491	Corporate spread matrix	Credit spread	39–196 bps (99 bps)
Private placement credit tenant leases	42	36	Discounted cash flow model	Illiquidity premium	125–150 bps (146 bps)
Derivative equity contracts	201	<b>60</b>			
OTC equity option referencing correlated equity indices	201	60	Proprietary option model	Correlation	-20–50% (33%)
<b>Liabilities</b>					
Derivative equity contracts	-23	<b>-9</b>			
OTC equity option referencing correlated equity indices	-23	-9	Proprietary option model	Correlation	-20–95% (39.3%)
Other derivative contracts and liabilities for life and health policy benefits	-414	<b>-344</b>			
Variable annuity and fair valued GMDB contracts	-355	-261	Discounted cash flow model	Risk margin	4% (n/a)
				Volatility	10.7–70.8%
				Lapse	1–10%
				Mortality improvement	0–1.5%
				Withdrawal rate	0–90%
Weather contracts	-30	-66	Proprietary option model	Risk margin	7–18% (13.5%)
				Correlation	-26%–48% (-0.7%)
				Volatility (power/gas)	39–179% (120.9%)
				Volatility (temperature)	50–149 (119) HDD/CAT <sup>2</sup>
				Index value (temperature)	1 133–7 379 (1 508) HDD/CAT <sup>2</sup>

<sup>1</sup> 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.

<sup>2</sup> Heating Degree Days (HDD); Cumulative Average Temperature (CAT).

### 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.

The significant unobservable inputs used in the fair value measurement of the Group's weather contracts are risk margin, correlation, volatility and index value. Where the Group has a long position, a significant increase (decrease) in the risk margin input in isolation would have resulted in a significantly higher (lower) fair value measurement. Where the Group has a long volatility or correlation position, a significant increase (decrease) in the correlation and volatility inputs would have resulted in a significantly higher (lower) fair value measurement. Where the Group has a long index position, an increase (decrease) in the index value input in isolation would have resulted in a significantly higher (lower) fair value measurement. Where the Group has a short position, a significant increase (decrease) in the risk margin input in isolation would have resulted in a significantly lower (higher) fair value measurement. Where the Group has a short volatility or correlation position, a significant increase (decrease) in the correlation and volatility inputs would have resulted in a significantly lower (higher) fair value measurement. Where the Group has a short index position, an increase (decrease) in the index value input in isolation would have resulted in a significantly lower (higher) fair value measurement.

**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	2020 Fair value	2021 Fair value	Unfunded commitments	Redemption frequency (if currently eligible)	Redemption notice period
Private equity funds	763	1 302	714	non-redeemable	n/a
Hedge funds	2	1		redeemable <sup>1</sup>	90 days <sup>2</sup>
Private equity direct	259	165	110	non-redeemable	n/a
Real estate funds	2	2	15	non-redeemable	n/a
<b>Total</b>	<b>1 026</b>	<b>1 470</b>	<b>839</b>		

<sup>1</sup> The redemption frequency varies by position.

<sup>2</sup> 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. 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 on 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	2020	2021
<b>Assets</b>		
Other invested assets	10 314	9 879
of which at fair value pursuant to the fair value option	287	398
Funds held by ceding companies	10 726	12 532
of which at fair value pursuant to the fair value option	172	172
<b>Liabilities</b>		
Liabilities for life and health policy benefits	-22 456	-22 196
of which at fair value pursuant to the fair value option	-98	-83

**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	2020	2021
Other invested assets	-24	54
Funds held by ceding companies	6	
Liabilities for life and health policy benefits	-8	16
<b>Total</b>	<b>-26</b>	<b>70</b>

Fair value changes from other invested assets and funds held by ceding companies are reported in "Net investment income – non-participating business". Fair value changes from the GMDB reserves are shown in "Life and health benefits". Fair value changes from accrued expenses and other liabilities are reported in "Net realised investment gains/losses – non-participating business".

**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:

2020 USD millions	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Total
<b>Assets</b>			
Policy loans		43	43
Mortgage loans		1 458	1 458
Other loans		1 906	1 906
Investment real estate		5 118	5 118
<b>Total assets</b>	0	8 525	8 525
<b>Liabilities</b>			
Debt	-10 735	-4 014	-14 749
<b>Total liabilities</b>	-10 735	-4 014	-14 749

2021 USD millions	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Total
<b>Assets</b>			
Policy loans		34	34
Mortgage loans		1 672	1 672
Other loans		2 302	2 302
Investment real estate		5 544	5 544
<b>Total assets</b>	0	9 552	9 552
<b>Liabilities</b>			
Debt	-10 058	-3 407	-13 465
<b>Total liabilities</b>	-10 058	-3 407	-13 465

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:

2020 USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
<b>Derivatives not designated as hedging instruments</b>				
Interest rate contracts	21 315	485	-436	49
Foreign exchange contracts	27 311	195	-186	9
Equity contracts	21 583	858	-364	494
Credit contracts	9 755	10	-237	-227
Other contracts	10 128	32	-318	-286
<b>Total</b>	<b>90 092</b>	<b>1 580</b>	<b>-1 541</b>	<b>39</b>
<b>Derivatives designated as hedging instruments</b>				
Interest rate contracts	3 990	9	-10	-1
Foreign exchange contracts	18 258	20	-224	-204
<b>Total</b>	<b>22 248</b>	<b>29</b>	<b>-234</b>	<b>-205</b>
<b>Total derivative financial instruments</b>	<b>112 340</b>	<b>1 609</b>	<b>-1 775</b>	<b>-166</b>
<b>Amount offset</b>				
Where a right of set-off exists		-653	653	
Due to cash collateral		-690	627	
<b>Total net amount of derivative financial instruments</b>		<b>266</b>	<b>-495</b>	<b>-229</b>

2021 USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
<b>Derivatives not designated as hedging instruments</b>				
Interest rate contracts	24 144	433	-408	25
Foreign exchange contracts	29 157	304	-222	82
Equity contracts	16 067	573	-312	261
Credit contracts	9 007	5	-93	-88
Other contracts	9 091	28	-263	-235
<b>Total</b>	<b>87 466</b>	<b>1 343</b>	<b>-1 298</b>	<b>45</b>
<b>Derivatives designated as hedging instruments</b>				
Interest rate contracts	3 730	1	-53	-52
Foreign exchange contracts	19 057	27	-199	-172
<b>Total</b>	<b>22 787</b>	<b>28</b>	<b>-252</b>	<b>-224</b>
<b>Total derivative financial instruments</b>	<b>110 253</b>	<b>1 371</b>	<b>-1 550</b>	<b>-179</b>
<b>Amount offset</b>				
Where a right of set-off exists		-788	788	
Due to cash collateral		-419	327	
<b>Total net amount of derivative financial instruments</b>		<b>164</b>	<b>-435</b>	<b>-271</b>

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 "Investments for unit-linked and with-profit business". 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 2020 and 2021.



### 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" and "Net investment result – unit-linked and with-profit 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	2020	2021
<b>Derivatives not designated as hedging instruments</b>		
Interest rate contracts	145	52
Foreign exchange contracts	970	-907
Equity contracts	-114	-209
Credit contracts	-93	-43
Other contracts		162
<b>Total gains/losses recognised in income</b>	<b>908</b>	<b>-945</b>

### 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 2020 and 2021, 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:

USD millions	Net realised investment gains/losses – non-participating business	Interest expenses	2020 Other comprehensive income - Net unrealised investment gains/losses	Net realised investment gains/losses – non-participating business	Interest expenses	2021 Other comprehensive income - Net unrealised investment gains/losses <sup>1</sup>
<b>Total amounts of income and expense line items</b>	1 730	-588	2 741	537	-571	-2 951
<b>Foreign exchange contracts</b>						
Gains/losses on derivatives	-852			678		
Gains/losses on hedged items	852			-678		
Amounts excluded from the effectiveness assessment						
<b>Interest rate contracts</b>						
Gains/losses on derivatives		30			-64	
Gains/losses on hedged items		-30			65	

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:

USD millions	Carrying value	2020 Cumulative basis adjustment	Carrying value	2021 Cumulative basis adjustment
<b>Assets</b>				
Fixed income securities available-for-sale	13 083		15 248	
<b>Liabilities</b>				
Short-term debt			-562	1
Long-term debt	-3 968	-10	-3 090	54

### Cash flow hedges

The Group entered into cross-currency swaps to reduce the exposure to foreign exchange volatility for a long-term debt instrument issued in the second quarter of 2016. These derivative instruments were designated as cash flow hedging instruments, until the hedge was discontinued in the second quarter of 2020. As of 31 December 2021 the Group had no derivative instruments designated as cash flow hedging instruments outstanding.

For the years ended 31 December, the gains and losses recorded in accumulated other comprehensive income, and reclassified into income were as follows:

USD millions	Net realised investment gains/losses – non-participating business	2020 Other comprehensive income – Cash flow hedges
<b>Total amounts of income and expense line items</b>	1 730	2
<b>Foreign exchange contracts</b>		
Gains/losses on derivatives	15 <sup>1</sup>	2

<sup>1</sup> Includes a loss of USD 11 million that was reclassified into earnings, as a result of cash flow hedge discontinuance.

### 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.

As of 31 December 2020 and 2021, the Group recorded an accumulated net unrealised foreign currency remeasurement gain of USD 248 million and USD 594 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 2020 and 2021 was approximately USD 956 million and USD 583 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 71 million and USD 63 million as of 31 December 2020 and 2021, respectively. For derivative financial instruments containing credit risk-related contingent features, the Group posted collateral of USD 48 million and USD 36 million as of 31 December 2020 and 2021, respectively. In the event of a reduction of the Group's credit rating to below investment grade, a fair value of USD 30 million additional collateral would have had to be posted as of 31 December 2021. The total equals the amount needed to settle the instruments immediately as of 31 December 2021.

## 10 Disposals

### **ReAssure Group Plc.**

On 22 July 2020, the Group completed the sale of ReAssure Group Plc. (ReAssure) to Phoenix Group Holdings Plc. (Phoenix), following the receipt of all required regulatory and anti-trust approvals. The agreement to sell the subsidiary was entered into in the fourth quarter of 2019.

Swiss Re received a cash payment of USD 1.6 billion, and shares in Phoenix representing a 13.3% stake. ReAssure's minority shareholder, MS&AD Insurance Group Holdings, Inc. received shares in Phoenix representing a 14.5% stake. Swiss Re sold part of its stake in June 2021 and the remaining stake in January 2022, see Note 23 Subsequent events for further details.

Please refer to Note 10 of the 2020 Annual Report for further details on the disposal of ReAssure.

## 11 Assets held for sale

### **Elips Life AG**

The Group announced on the 10 December 2021, that it has agreed to sell its life insurance subsidiary Elips Life AG (elipsLife), which is part of the Corporate Solutions business segment, to Swiss Life International and to enter into a long-term reinsurance partnership for elipsLife's in-force and new business.

As part of the agreement, Swiss Life will take over elipsLife, excluding the medical business of Elips Versicherungen AG in Ireland, which will remain with the Group. The transaction is expected to close around the middle of 2022, subject to several closing conditions, including regulatory approval and merger control clearance by the applicable authorities.

## 1.2 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	2020	2021
Senior financial debt		300
Senior operational debt	153	
Subordinated financial debt		562
<b>Short-term debt</b>	<b>153</b>	<b>862</b>
Senior financial debt	2 919	2 578
Senior operational debt	95	99
Subordinated financial debt	6 147	5 290
Subordinated operational debt	1 927	1 859
Contingent capital instruments classified as financial debt	496	497
<b>Long-term debt</b>	<b>11 584</b>	<b>10 323</b>
<b>Total carrying value</b>	<b>11 737</b>	<b>11 185</b>
<b>Total fair value</b>	<b>14 749</b>	<b>13 465</b>

As of 31 December 2020 and 2021, operational debt, ie debt related to operational leverage, amounted to USD 2.2 billion (thereof USD 1.9 billion limited- or non-recourse) and USD 2 billion (thereof USD 1.9 billion limited- or non-recourse), respectively. Operational leverage is subject to asset/liability matching and is excluded from rating agency financial leverage calculations.

### Maturity of long-term debt

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

USD millions	2020	2021
Due in 2022	856	
Due in 2023	916	851
Due in 2024	2 271	2 264
Due in 2025	1 157	1 083
Due in 2026	464	461
Due after 2026	5 920	5 664
<b>Total carrying value</b>	<b>11 584</b>	<b>10 323</b>

**Senior long-term debt**

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Book value in USD millions
2023	Senior notes	2016	EUR	750	1.38%	849
2024	EMTN	2014	CHF	250	1.00%	272
2026	Senior notes <sup>1</sup>	1996	USD	397	7.00%	449
2027	EMTN	2015	CHF	250	0.75%	271
2030	Senior notes <sup>1</sup>	2000	USD	193	7.75%	247
2042	Senior notes	2012	USD	500	4.25%	490
Various	Payment undertaking agreements	Various	USD	90	Various	99
<b>Total senior long-term debt as of 31 December 2021</b>						<b>2 677</b>
Total senior long-term debt as of 31 December 2020						3 014

<sup>1</sup> 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 note	2020	SGD	350	3.13%	2025	258
2044	Subordinated fixed rate resettable callable loan note	2014	USD	500	4.50%	2024	499
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	849
2052	Subordinated fixed rate reset step-up callable loan note	2020	EUR	800	2.71%	2032	876
2057	Subordinated private placement (amortising, limited recourse)	2007	GBP	1 372	6.25%		1 858
Perpetual	Perpetual subordinated fixed-to-floating rate callable loan note	2015	EUR	750	2.60%	2025	822
Perpetual	Perpetual subordinated fixed spread callable note	2019	USD	1 000	4.25%	2024	995
<b>Total subordinated long-term debt as of 31 December 2021</b>						<b>7 149</b>	
Total subordinated long-term debt as of 31 December 2020						8 074	

**Contingent capital instruments classified as long-term debt**

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Book value in USD millions
2024	Senior unsecured exchangeable instrument with issuer stock settlement	2018	USD	500	3.25%	497
<b>Total contingent capital instruments classified as long-term debt as of 31 December 2021</b>						<b>497</b>
Total contingent capital instruments classified as long-term debt as of 31 December 2020						496

**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	2020	2021
Senior financial debt	88	88
Senior operational debt	7	3
Subordinated financial debt	263	227
Subordinated operational debt	112	119
Contingent capital instruments classified as financial debt	17	17
<b>Total</b>	<b>487</b>	<b>454</b>

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".

**Convertible debt**

In June 2018, SRL issued six-year senior unsecured exchangeable notes with issuer stock settlement. The notes have a face value of USD 500 million, with a fixed coupon of 3.25% per annum, payable semi-annually in arrear until the maturity date (13 June 2024). Subject to the conditions of the notes, noteholders may exchange their notes for ordinary shares of SRL at an exchange price of USD 102.2844 (adjusted from the initial exchange price of USD 115.2593). The exchange price is subject to further adjustment in certain circumstances described in the conditions of the notes. The issuer may elect to settle a noteholder-initiated exchange in cash or SRL shares. To economically offset the settlement of a noteholder-initiated exchange, SRL purchased matching call options on SRL shares with a portion of the proceeds. Consequently, no new SRL shares will be issued upon a noteholder-initiated exchange. Assuming that all of the notes are exchanged at the request of noteholders, and subject to further adjustments to the exchange price as described in the conditions of the notes, 4 888 331 registered shares of SRL would have to be delivered to noteholders. Both the noteholder-initiated exchange option and the matching call options are accounted as equity within these financial statements.

**Long-term debt issued in 2021**

No long-term debt was issued in the year ended 31 December 2021.

## 13 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	2020	2021
Operating lease right-of-use assets	471	426
Operating lease liabilities	524	478

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	2020	2021
Less than one year	90	86
Between one year and two years	80	74
Between two years and three years	73	66
Between three years and four years	63	53
Between four years and five years	51	48
After five years	232	209
<b>Total undiscounted cash flows</b>	<b>589</b>	<b>536</b>
Less imputed interest	-65	-58
<b>Total lease liability</b>	<b>524</b>	<b>478</b>

As of 31 December 2021, undiscounted sublease cash flows over the next ten years were USD 54 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 2020 and 2021 was 2.4% and 2.1%, respectively. The weighted average remaining lease term for operating leases as of 31 December 2020 and 2021 was 9.3 years and 9.9 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	2020	2021
Fixed operating lease cost	89	85
Other lease cost <sup>1</sup>	5	5
<b>Total operating lease cost</b>	<b>94</b>	<b>90</b>
Less sublease income from operating leases	-10	-6
<b>Total lease cost</b>	<b>84</b>	<b>84</b>

<sup>1</sup> "Other lease cost" includes variable lease cost.

### Other information

For the year ended 31 December 2020 and 2021, cash paid for amounts included in the measurement of operating lease liabilities was USD 93 million and USD 89 million, respectively. Right-of-use assets obtained in exchange for new operating lease liabilities in 2020 and 2021 were USD 51 million and USD 51 million, respectively.



## 14 Earnings per share

Earnings per share for the years ended 31 December were as follows:

USD millions (except share data)	2020	2021
<b>Basic earnings per share</b>		
Net income/loss	-824	1 437
Non-controlling interests	-54	
Net income/loss attributable to common shareholders	-878	<b>1 437</b>
Weighted average common shares outstanding	289 126 570	288 952 702
<b>Net income/loss per share in USD</b>	-3.04	<b>4.97</b>
<b>Net income/loss per share in CHF<sup>1</sup></b>	-2.97	<b>4.52</b>
<b>Effect of dilutive securities</b>		
Change in income available to common shares due to convertible debt		14
Change in average number of shares due to convertible debt		14 072 893
Change in average number of shares due to employee options		506 107
<b>Diluted earnings per share</b>		
Net income assuming debt conversion and exercise of options		<b>1 451</b>
Weighted average common shares outstanding		303 531 702
<b>Net income/loss per share in USD</b>	-3.04	<b>4.78</b>
<b>Net income/loss per share in CHF<sup>1</sup></b>	-2.97	<b>4.35</b>

<sup>1</sup> The translation from USD to CHF is shown for informational purposes only and has been calculated using the Group's average exchange rates.

Dividends are declared in Swiss francs. During the years ended 31 December 2020 and 2021, the parent company of the Group (Swiss Re Ltd) paid dividends per share of CHF 5.90, respectively.

Net of tax expense effects of debt conversion, totalling USD 14 million in 2020, and the potential impact of this debt conversion as well as the issuance of employee options on the weighted average number of shares, of 14 303 549 shares, have not been included in the diluted earnings per share calculation because the impact of such an inclusion was antidilutive.

## 15 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	2020	2021
Current taxes	398	268
Deferred taxes	-664	126
<b>Income tax expense/benefit</b>	<b>-266</b>	<b>394</b>

### 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	2020	2021
Income tax at the Swiss statutory tax rate of 19.7% (2020: 21.0%)	-229	361
Increase (decrease) in the income tax charge resulting from:		
Foreign income taxed at different rates	-12	81
Impact of foreign exchange movements	172	-45
Tax exempt income/dividends received deduction	-181	29
Change in valuation allowance	-88	-42
Non-deductible expenses	61	42
Change in statutory rate	7	-10
Other income based taxes	-36	13
Change in liability for unrecognised tax benefits including interest and penalties	-17	-3
Basis differences in subsidiaries	38	-25
Intra-entity transfers	92	-12
Other, net <sup>1</sup>	-73	5
<b>Total</b>	<b>-266</b>	<b>394</b>

<sup>1</sup> Other, net includes tax return to tax provision and other prior year adjustments from various jurisdictions in 2020 and 2021 of -80 million and -2 million, respectively.

For the year ended 31 December 2021, the Group reported a tax expense of USD 394 million on a pre-tax income of USD 1 831 million, compared to a benefit of USD 266 million on a pre-tax loss of USD 1 090 million for 2020. This translates into an effective tax rate in the current and prior-year reporting periods of 21.5% and 24.4%, respectively.

For the year ended 31 December 2021, the tax rate was largely driven by profits earned in higher tax jurisdictions and tax charges from non-deductible expenses, partially offset by tax benefits from the release of valuation allowance on deferred tax assets and foreign currency translation differences between statutory and US GAAP accounts. The tax rate in the year ended 31 December 2020 was largely driven by tax benefits from tax-exempt income and the release of valuation allowance on deferred tax assets, partially offset by tax charges from intra-entity transfers and foreign currency translation differences between statutory and US GAAP accounts.

**Deferred and other non-current taxes**

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

USD millions	2020	2021
<b>Deferred tax assets</b>		
Income accrued/deferred	312	156
Technical provisions	756	1 001
Unearned Premium Reserves	322	375
Pension provisions	295	221
Benefit on loss carryforwards	2 982	3 155
Currency translation adjustments	522	436
Unrealised gains in income	232	121
Investment valuation in income	182	257
Other	869	824
<b>Gross deferred tax asset</b>	<b>6 472</b>	<b>6 546</b>
Valuation allowance	-395	-388
Unrecognised tax benefits offsetting benefits on loss carryforwards	2	-27
<b>Total deferred tax assets</b>	<b>6 079</b>	<b>6 131</b>
<b>Deferred tax liabilities</b>		
Investment valuation in income	-240	-448
Deferred acquisition costs	-1 062	-1 115
Technical provisions	-1 818	-2 029
Unrealised gains on investments	-1 492	-736
Foreign exchange provisions	-790	-667
Currency translation adjustments	-266	-216
Other	-883	-1 019
<b>Total deferred tax liabilities</b>	<b>-6 551</b>	<b>-6 230</b>
Liability for unrecognised tax benefits including interest and penalties	-189	-154
<b>Total deferred and other non-current tax liabilities</b>	<b>-6 740</b>	<b>-6 384</b>

The Group has not recognised deferred tax liabilities or additional foreign withholding tax liabilities for undistributed earnings of its foreign subsidiaries that arose in 2021 and prior where there are current plans to indefinitely reinvest those earnings. The Group has the intent and ability to control all distributions from foreign subsidiaries in a tax efficient manner. Deferred tax liabilities or additional foreign withholding tax liabilities will be recognised if the Group can no longer demonstrate that it plans to indefinitely reinvest the undistributed earnings. As of 31 December 2021, the US GAAP undistributed earnings of these subsidiaries was USD 3.5 billion. Due to the differences in US GAAP and local tax basis of undistributed earnings, it is not practicable to estimate the amount of additional tax liability if these earnings were not indefinitely reinvested.

In 2021, USD 725 million was distributed from a subsidiary where the earnings were planned to be permanently reinvested. No foreign tax withholding liability arose from this distribution and no shareholder tax liability resulted due to the participation tax exemption rules.

As of 31 December 2021, the Group had USD 14 636 million net operating tax loss carryforwards, expiring as follows: USD 3 million in 2022, USD 6 million in 2023, USD 815 million in 2024, USD 411 million in 2025, USD 7 473 million in 2026 and beyond and USD 5 928 million never expire.

As of 31 December 2021, the Group had capital loss carryforwards of USD 609 million that never expire.

For the year ended 31 December 2021, net operating tax losses of USD 1 995 million and net capital tax losses of USD 28 million were utilised.

The valuation allowance for deferred tax assets as of 31 December 2020 and 2021 was USD 395 million and USD 388 million, respectively. The net change in the valuation allowance for the year ended 31 December 2021 was a decrease of USD 7 million, with a USD 13 million decrease driven by balance sheet translation recorded in equity, a USD 42 million decrease from net releases included as tax benefit in income tax from operations, and a USD 48 million increase from tax rate changes included as a tax charge in income tax from operations.

The valuation allowance as of 31 December 2021 was primarily related to loss carryforwards and intangible assets that, in the judgment of management, are not more likely than not to be realised. In assessing the realisability of deferred tax assets, management considers whether it is more likely than not that some or all of the deferred tax assets will not be realised. The ultimate realisation of deferred tax assets depends on the generation of future taxable income during the periods in which those temporary differences are deductible.

Management considers projections of future taxable income and tax planning strategies in making this assessment. Based on the level of historical taxable income and projections of future taxable income over the periods for which the deferred tax assets are deductible, management believes that it is more likely than not that the Group will realise the benefits of these deductible differences, net of the existing valuation allowance as of 31 December 2021. The amount of the deferred tax asset considered realisable, however, could be reduced in the near term if estimates of future taxable income during the carryforward periods are reduced.

Subsequently recognised tax benefits related to the valuation allowance for deferred tax assets as of 31 December 2021 will be allocated entirely to income tax from operations.

Income taxes paid in 2020 and 2021 were USD 364 million and USD 258 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	2020	2021
Balance as of 1 January	170	150
Additions based on tax positions related to current year	13	11
Additions based on tax positions related to prior years	-6	14
Reductions for tax positions of current year	16	-2
Reductions for tax positions of prior years	-30	-20
Statute expiration	-5	-2
Settlements	-17	-1
Other (including foreign currency translation)	9	-7
<b>Balance as of 31 December</b>	<b>150</b>	<b>143</b>

As of 31 December 2020 and 2021, the amount of gross unrecognised tax benefits within the tabular reconciliation that, if recognised, would affect the effective tax rate were approximately USD 150 million and USD 143 million, respectively.

Interest and penalties related to unrecognised tax benefits are recorded in income tax expense/benefit. For the years ended 31 December 2020 and 2021, such benefits were USD 10 million and expenses were USD 1 million, respectively. For the years ended 31 December 2020 and 2021, USD 37 million and USD 38 million, respectively, were accrued for the payment of interest (net of tax benefits) and penalties. The accrued interest balance as of 31 December 2021 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 2021 presented in the table above excludes accrued interest and penalties (USD 38 million).

During the year, certain tax positions and audits in 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 decrease by USD 62 million over the next 12 months due to settlements or expiration of statutes. It is also reasonably possible that balance could increase as a result of proposed adjustments by taxing authorities. Quantification of an estimated range of increases cannot be made at this time.

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

Australia	2017–2021	Korea	2013–2021
Brazil	2014; 2016–2021	Luxembourg	2017–2021
Canada	2014–2021	Malaysia	2021
China	2011–2021	Mexico	2016–2021
Colombia	2016–2021	Netherlands	2016–2021
Denmark	2015–2021	New Zealand	2016–2021
France	2019–2021	Nigeria	2016–2021
Germany	2017–2021	Singapore	2017–2021
Hong Kong	2014–2021	Slovakia	2016–2021
India	2004; 2010–2021	South Africa	2015–2021
Ireland	2016–2021	Spain	2017–2021
Israel	2016–2021	Switzerland	2017–2021
Italy	2017–2021	United Kingdom	2018–2021
Japan	2019–2021	United States	2017–2021

## 16 Benefit plans

### Defined benefit pension plans and post-retirement benefits

The Group sponsors various funded defined benefit pension plans. Employer 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 Group also provides certain healthcare and life insurance benefits for retired employees and their dependants. Generally 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.

2020 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	4 165	2 589	340	7 094
Service cost	120	8	4	132
Interest cost	4	47	5	56
Amendments				0
Actuarial gains/losses	226	169	10	405
Benefits paid	-49	-84	-17	-150
Employee contribution	35			35
Acquisitions/disposals/additions		-541		-541
Effect of settlement, curtailment and termination	-161			-161
Effect of foreign currency translation	410	46	18	474
<b>Benefit obligation as of 31 December</b>	<b>4 750</b>	<b>2 234</b>	<b>360</b>	<b>7 344</b>
Fair value of plan assets as of 1 January	4 145	2 633	0	6 778
Actual return on plan assets	220	272		492
Company contribution	104	15	17	136
Benefits paid	-49	-84	-17	-150
Employee contribution	35			35
Acquisitions/disposals/additions		-559		-559
Effect of settlement, curtailment and termination	-161			-161
Effect of foreign currency translation	408	39		447
<b>Fair value of plan assets as of 31 December</b>	<b>4 702</b>	<b>2 316</b>	<b>0</b>	<b>7 018</b>
<b>Funded status</b>	<b>-48</b>	<b>82</b>	<b>-360</b>	<b>-326</b>
<b>2021</b> USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	4 750	2 234	360	7 344
Service cost	136	7	4	147
Interest cost		35	4	39
Amendments				0
Actuarial gains/losses	2	-76	-20	-94
Benefits paid	-40	-79	-17	-136
Employee contribution	38			38
Effect of settlement, curtailment and termination	-146			-146
Effect of foreign currency translation	-142	-49	-6	-197
<b>Benefit obligation as of 31 December</b>	<b>4 598</b>	<b>2 072</b>	<b>325</b>	<b>6 995</b>
Fair value of plan assets as of 1 January	4 702	2 316	0	7 018
Actual return on plan assets	346	-31		315
Company contribution	112	15	17	144
Benefits paid	-40	-79	-17	-136
Employee contribution	38			38
Effect of settlement, curtailment and termination	-146			-146
Effect of foreign currency translation	-140	-40		-180
<b>Fair value of plan assets as of 31 December</b>	<b>4 872</b>	<b>2 181</b>	<b>0</b>	<b>7 053</b>
<b>Funded status</b>	<b>274</b>	<b>109</b>	<b>-325</b>	<b>58</b>

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

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
<b>Net amount recognised</b>	<b>-48</b>	<b>82</b>	<b>-360</b>	<b>-326</b>

  

2021 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Non-current assets	274	263		537
Current liabilities		-2	-18	-20
Non-current liabilities		-152	-307	-459
<b>Net amount recognised</b>	<b>274</b>	<b>109</b>	<b>-325</b>	<b>58</b>

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

2020 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	832	297	23	1 152
Prior service cost/credit	-70	2	-35	-103
<b>Total</b>	<b>762</b>	<b>299</b>	<b>-12</b>	<b>1 049</b>

  

2021 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	528	263	2	793
Prior service cost/credit	-55	2	-20	-73
<b>Total</b>	<b>473</b>	<b>265</b>	<b>-18</b>	<b>720</b>

### Components of net periodic benefit cost

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

2020 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Service cost (net of participant contributions)	120	8	4	132
Interest cost	4	47	5	56
Expected return on assets	-102	-61		-163
Amortisation of:				
Net gain/loss	66	21		87
Prior service cost	-15		-15	-30
Effect of settlement, curtailment and termination	34			34
<b>Net periodic benefit cost</b>	<b>107</b>	<b>15</b>	<b>-6</b>	<b>116</b>

  

2021 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Service cost (net of participant contributions)	136	7	4	147
Interest cost		35	4	39
Expected return on assets	-118	-47		-165
Amortisation of:				
Net gain/loss	65	20	1	86
Prior service cost	-15		-15	-30
Effect of settlement, curtailment and termination	14			14
<b>Net periodic benefit cost</b>	<b>82</b>	<b>15</b>	<b>-6</b>	<b>91</b>

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

2020 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	108	-42	10	76
Prior service cost/credit				0
Amortisation of:				
Net gain/loss	-66	-21		-87
Prior service cost	15		15	30
Effect of settlement, curtailment and termination	-28			-28
Impact of sale of ReAssure		-93		-93
Exchange rate gain/loss recognised during the year		12		12
<b>Total recognised in other comprehensive income, gross of tax</b>	<b>29</b>	<b>-144</b>	<b>25</b>	<b>-90</b>
<b>Total recognised in net periodic benefit cost and other comprehensive income, gross of tax</b>	<b>136</b>	<b>-129</b>	<b>19</b>	<b>26</b>

2021 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	-226	2	-20	-244
Prior service cost/credit				0
Amortisation of:				
Net gain/loss	-65	-20	-1	-86
Prior service cost	15		15	30
Effect of settlement, curtailment and termination	-13			-13
Exchange rate gain/loss recognised during the year		-16		-16
<b>Total recognised in other comprehensive income, gross of tax</b>	<b>-289</b>	<b>-34</b>	<b>-6</b>	<b>-329</b>
<b>Total recognised in net periodic benefit cost and other comprehensive income, gross of tax</b>	<b>-207</b>	<b>-19</b>	<b>-12</b>	<b>-238</b>

The accumulated benefit obligation (the current value of accrued benefits excluding future salary increases) for pension benefits was USD 6 921 million and USD 6 631 million as of 31 December 2020 and 2021, 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	2020	2021
Projected benefit obligation	5 455	523
Fair value of plan assets	5 195	368

USD millions	2020	2021
Accumulated benefit obligation	5 413	517
Fair value of plan assets	5 195	367



## Principal actuarial assumptions

	Swiss plan		Foreign plans weighted average		Other benefits weighted average	
	2020	2021	2020	2021	2020	2021
<b>Assumptions used to determine obligations at the end of the year</b>						
Discount rate	0.0%	0.2%	1.6%	2.1%	1.1%	1.5%
Rate of compensation increase	1.8%	1.8%	2.6%	2.9%	2.1%	2.1%
Interest crediting rate	1.8%	1.5%				
<b>Assumptions used to determine net periodic pension costs for the year ended</b>						
Discount rate	0.1%	0.0%	2.1%	1.6%	1.5%	1.1%
Expected long-term return on plan assets	2.5%	2.8%	2.9%	2.2%		
Rate of compensation increase	1.8%	1.8%	2.9%	2.6%	2.1%	2.1%
Interest crediting rate	1.8%	1.8%				
<b>Assumed medical trend rates at year end</b>						
Medical trend – initial rate					4.3%	4.4%
Medical trend – ultimate rate					3.6%	3.7%
Year that the rate reaches the ultimate trend rate					2024	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 2020 and 2021 was as follows:

Asset category	Swiss plan allocation			Foreign plans allocation		
	2020	2021	Target allocation	2020	2021	Target allocation
Equity securities	26%	28%	23%	5%	5%	5%
Fixed income securities	37%	36%	47%	75%	68%	87%
Real estate	18%	18%	23%	0%	0%	0%
Other	19%	18%	7%	20%	27%	8%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

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 2 million (0.03% of total plan assets) and USD 3 million (0.04% of total plan assets) as of 31 December 2020 and 2021, 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. Tactical allocation decisions that reflect this strategy are made on a quarterly basis, including balancing the investment portfolios between equity and fixed income securities.

**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 were as follows:

2020 USD millions	Fair value			Investments measured at net asset value as practical expedient	Total
	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)		
<b>Assets</b>					
Fixed income securities:					
Government debt securities	60	1 521			1 581
Corporate debt securities		1 891	11		1 902
RMBS/CMBS/ABS		9			9
Equity securities	1 209	122			1 331
Real estate	4		861		865
Other assets		56		1 155	1 211
Cash and cash equivalents	119				119
<b>Total plan assets</b>	<b>1 392</b>	<b>3 599</b>	<b>872</b>	<b>1 155</b>	<b>7 018</b>

2021 USD millions	Fair value			Investments measured at net asset value as practical expedient	Total
	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)		
<b>Assets</b>					
Fixed income securities:					
Government debt securities	93	1 346			1 439
Corporate debt securities		1 635	9		1 644
RMBS/CMBS/ABS		132			132
Equity securities	1 347	111			1 458
Real estate	25		882		907
Other assets		106		1 248	1 354
Cash and cash equivalents	119				119
<b>Total plan assets</b>	<b>1 584</b>	<b>3 330</b>	<b>891</b>	<b>1 248</b>	<b>7 053</b>

**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:

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
<b>Closing balance as of 31 December</b>	<b>861</b>	<b>11</b>	<b>872</b>

2021 USD millions	Real estate	Other assets	Total
Balance as of 1 January	861	11	872
Realised/unrealised gains/losses:			
Relating to assets still held at the reporting date	33	-1	32
Relating to assets sold during the period			0
Purchases, issuances and settlements	13		13
Transfers in and/or out of level 3			0
Impact of foreign exchange movements	-25	-1	-26
<b>Closing balance as of 31 December</b>	<b>882</b>	<b>9</b>	<b>891</b>

**Expected contributions and estimated future benefit payments**

The employer contributions expected to be made in 2022 to the defined benefit pension plans are USD 128 million and to the post-retirement benefit plans are USD 18 million.

As of 31 December 2021, 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
2022	272	80	18	370
2023	268	84	18	370
2024	258	86	18	362
2025	256	88	18	362
2026	249	89	18	356
Years 2027–2031	1 134	468	88	1 690

**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 2020 and 2021 was USD 84 million and USD 87 million, respectively.

## 17 Share-based payments

As of 31 December 2020 and 2021, the Group had the share-based compensation plans as described below.

The total compensation cost for share-based compensation plans recognised in net income was USD 44 million and USD 61 million in 2020 and 2021, respectively. The related tax benefit was USD 9 million and USD 12 million, respectively.

### Restricted shares

The Group granted 21 709 and 74 018 restricted shares to selected employees in 2020 and 2021, respectively. In addition, 47 984 and 45 315 shares were delivered to members of the Board of Directors during 2020 and 2021, respectively, which are generally not subject to forfeiture risk.

A summary of the movements in shares relating to outstanding awards granted under the restricted share plans for the year ended 31 December 2021 is as follows:

	Weighted average grant date fair value in CHF <sup>1</sup>	Number of shares
Non-vested at 1 January	87	233 503
Granted	82	119 333
Forfeited	98	-3 030
Vested	87	-70 645
<b>Outstanding as of 31 December</b>	<b>85</b>	<b>279 161</b>

<sup>1</sup> Equal to the market price of the shares at grant.

### Leadership Performance Plan/Leadership Share Plan

The Leadership Performance Plan (LPP)/Leadership Share Plan (LSP) awards are expected to be settled in shares, and the requisite service as well as the maximum contractual term are three years. For LPP 2018, LPP 2019, LPP 2020 and LSP 2021 awards, an additional two-year holding period applies for all members of the Group EC and other key executives. At grant date, LPP 2018 and LPP 2019 awards were split equally into two underlying components of Performance Share Units (PSUs). The ROE PSUs are measured against a return on equity performance condition and will vest within a range of 0–100%. The TSR PSUs are based on relative total shareholder return, measured against a pre-defined group of peers and will vest within a range of 0–200%. At grant date, LPP 2020 was split equally into three underlying components of PSUs. The ENW PSUs, being the third component, are measured against ENW growth performance and will vest within a range of 0-100%. In 2021 the Leadership Share Plan (LSP) succeeded the LPP, whereby depending on the corporate band of the participant, the plan consists of either non-performance based components in the form of Share Units (SUs), three separate performance-based components in the form of PSUs, similar to LPP 2020, each vesting within a range of 0-150%, or a mix of both non-performance and performance based components. Each SU is entitled to a dividend equivalent (equal value to actual Swiss Re dividends), allocated annually and settled in shares at the end of the vesting period. The fair values of all components are determined separately, based on stochastic models.

The fair value assumptions in the grant valuations include market estimates for dividends and the risk-free rate based on the average of the 10-year US Treasury bond taken monthly over each year in the performance period, resulting in risk-free rates ranging between 1.5% and 3.1% for all outstanding LPP and LSP awards.

For the year ended 31 December 2021, the outstanding units were as follows:

<b>ROE PSU</b>	LPP 2018	LPP 2019	LPP 2020	LSP 2021
Non-vested at 1 January	303 205	297 030	207 926	
Granted				124 760
Forfeited	-357	-10 872	-7 535	-6 728
Vested	-302 848			
<b>Outstanding as of 31 December</b>		<b>286 158</b>	<b>200 391</b>	<b>118 032</b>
<b>Grant date fair value in CHF</b>	<b>70.18</b>	<b>78.22</b>	<b>78.81</b>	<b>74.20</b>

<b>TSR PSU</b>				
Non-vested at 1 January	245 696	286 069	340 493	
Granted				225 148
Forfeited	-290	-10 473	-12 340	-12 141
Vested	-245 406			
<b>Outstanding as of 31 December</b>		<b>275 596</b>	<b>328 153</b>	<b>213 007</b>
<b>Grant date fair value in CHF</b>	<b>86.62</b>	<b>81.25</b>	<b>48.12</b>	<b>53.67</b>

<b>ENW PSU</b>				
Non-vested at 1 January			192 523	
Granted				121 144
Forfeited			-6 978	-6 533
Vested				
<b>Outstanding as of 31 December</b>			<b>185 545</b>	<b>114 611</b>
<b>Grant date fair value in CHF</b>			<b>85.17</b>	<b>74.20</b>

<b>SU</b>				
Non-vested at 1 January				
Granted				316 789
Forfeited				-9 010
Vested				
<b>Outstanding as of 31 December</b>				<b>307 779</b>
<b>Grant date fair value in CHF</b>				<b>93.50</b>

### **Unrecognised compensation cost**

As of 31 December 2021, the total unrecognised compensation cost (net of forfeitures) related to non-vested, share-based compensation awards was USD 74 million and the weighted average period over which that cost is expected to be recognised is 2.0 years.

The number of shares authorised for the Group's share-based payments to employees was 3 004 148 and 3 711 203 as of 31 December 2020 and 2021, respectively. The Group's policy is to ensure that sufficient treasury shares are available at all times to settle future share-based compensation plans.

### **Global Share Participation Plan**

Swiss Re has a Global Share Participation Plan, which is a share purchase plan available to employees of companies within the Group. Swiss Re makes a financial contribution to participants in the plan, by matching the commitment that they make during the plan cycle with additional Swiss Re shares.

If the employee is still employed by Swiss Re at the end of a plan cycle, the employee will receive an additional number of shares equal to 30% of the total number of purchased and dividend shares held at that time. In 2020 and 2021, Swiss Re contributed USD 11 million and USD 12 million to the plans and authorised 178 571 and 199 569 shares as of 31 December 2020 and 2021, respectively.

## 18 Compensation, participations and loans of members of governing bodies

The disclosure requirements under Swiss law in respect of compensation and loans to the members of the Board of Directors and of the Group Executive Committee, as well as closely related persons, are detailed in the Compensation Report on pages 128–137 of the Financial Report of the Swiss Re Group.

The disclosure requirements under Swiss law in respect of participations of members of the Board of Directors and the Group Executive Committee, as well as closely related persons, are detailed on page 320–321 of the Annual Report of Swiss Re Ltd.

## 19 Related parties

The Group defines the following as related parties to the Group: subsidiaries of Swiss Re Ltd, entities in which the Group has significant influence, pension plans, members of the Board of Directors (BoD) and the Group Executive Committee (EC) and their close family members, and entities which are directly and indirectly controlled by members of governing bodies of the Group and their close family members.

As part of the consolidation process, transactions between Swiss Re Ltd and subsidiaries are eliminated in consolidation and are not disclosed in the notes.

Contributions made to defined benefit pension plans and post-retirement benefit plans are disclosed in Note 16 "Benefit plans". Plan assets of the defined benefit pension plans include Swiss Re common stock of USD 2 million (0.03% of total plan assets) and USD 3 million (0.04% of total plan assets) as of 31 December 2020 and 2021, respectively.

The total number of shares, options and related instruments held by members of the BoD and the Group EC and persons closely related to, amounts to less than 1% of the shares issued by Swiss Re Ltd. None of the members of the Board of Directors and the Group EC has any significant business connection with Swiss Re Ltd or any of its Group companies. The Board member Susan L. Wagner is also a board member of BlackRock, Inc., which provides technology and asset management services to Swiss Re. The Board member Joachim Oechslein served on an interim basis as a member of the Executive Board of Credit Suisse Group AG in 2021 and continues to serve as a Senior Advisor to Credit Suisse Group AG. Swiss Re has a business relationship with Credit Suisse. It is also a credit provider, and a named dealer under Swiss Re's Debt Issuance Programme.

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

USD millions	2020	2021
Share in earnings of equity-accounted investees	-51	806
Dividends received from equity-accounted investees	124	236



## 20 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 2021 were USD 1 607 million.

The Group has entered into various real estate construction contracts. The commitments under the contracts amount to USD 83 million over the next six years.

The Group enters into a number of contracts in the ordinary course of re/insurance 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.

## 21 Significant subsidiaries and equity investees

		Share capital (millions)	Affiliation in % as of 31.12.2021	Method of consolidation
<b>Europe</b>				
<b>Germany</b>				
Swiss Re Germany GmbH, Munich	EUR	45	100	f
<b>Jersey</b>				
Swiss Re Finance Holdings (Jersey) Limited, St Helier	GBP	0.0001	100	f
Swiss Re Finance (Jersey) Limited, St Helier	GBP	3	100	f
Swiss Re Finance Midco (Jersey) Limited, St Helier	GBP	0.000002	100	f
<b>Liechtenstein</b>				
Elips Life AG, Vaduz	CHF	12	100	f
Elips Versicherungen AG, Vaduz	CHF	5	100	f
<b>Luxembourg</b>				
iptiQ Life S.A., Luxembourg	EUR	6	100	f
Swiss Pillar Investments Europe SARL, Luxembourg	EUR	0.01	100	f
Swiss Re Europe Holdings S.A., Luxembourg	EUR	105	100	f
Swiss Re Europe S.A., Luxembourg	EUR	350	100	f
Swiss Re Finance (Luxembourg) S.A., Luxembourg	EUR	0.2	100	f
Swiss Re Funds (Lux) I, Senningerberg <sup>1</sup>	EUR	15 960	100	f
Swiss Re International SE, Luxembourg	EUR	182	100	f
Ares ECSF XI (S) Holdings S.À R.L., Luxembourg	EUR	131	100	f
iptiQ EMEA P&C S.A., Luxembourg	EUR	6	100	f
<b>Netherlands</b>				
elipsLife EMEA Holding B.V., Hoofddorp	EUR	0.0001	100	f
Swiss Re Life Capital EMEA Holding B.V., Hoofddorp	EUR	0.0001	100	f
iptiQ EMEA P&C Holding B.V., Hoofddorp	EUR	0.0001	100	f
<b>Switzerland</b>				
Swiss Pillar Investments Ltd, Zurich	CHF	0.1	100	f
Swiss Re Direct Investments Company Ltd, Zurich	CHF	0.1	100	f
Swiss Re Investments Company Ltd, Zurich	CHF	0.1	100	f
Swiss Re Investments Ltd, Zurich	CHF	1	100	f
iptiQ Group Holding Ltd, Zurich	CHF	0.1	100	f
Swiss Re Nexus Reinsurance Company Ltd, Zurich	CHF	10	100	f
Swiss Re Management Ltd, Adliswil	CHF	0.1	100	f
Swiss Re Principal Investments Company Ltd, Zurich	CHF	0.1	100	f
Swiss Re Reinsurance Holding Company Ltd, Zurich	CHF	0.1	100	f
Swiss Reinsurance Company Ltd, Zurich	CHF	34	100	f
Swiss Re Investments Holding Company Ltd, Zurich	CHF	0.1	100	f
Swiss Re Corporate Solutions Holding Company Ltd, Zurich	CHF	0.1	100	f
<b>United Kingdom</b>				
Swiss Re Finance (UK) Plc, London	GBP	1	100	f
Swiss Re Capital Markets Limited, London	USD	60	100	f
Swiss Re Services Limited, London	GBP	2	100	f

<sup>1</sup> Net asset value instead of share capital.

		Share capital (millions)	Affiliation in % as of 31.12.2021	Method of consolidation
<b>Americas and Caribbean</b>				
<b>Brazil</b>				
Swiss Re Brasil Resseguros S.A., Sao Paulo	BRL	337	100	f
Swiss Re Corporate Solutions Brasil Seguros S.A., Sao Paulo	BRL	318	60	f
<b>Cayman Islands</b>				
FWD Group Ltd, Grand Cayman	USD	1	12	e
SRE HL PE 1 LP, George Town	EUR	306	100	f
SREH HL PE 1 LP, George Town	EUR	419	100	f
SRZ HL PE 1 LP, George Town	USD	348	100	f
Swiss Pillar Investments UK Limited, George Town	GBP	0.1	100	f
Ares European Credit Strategies Fund XI (S), L.P., George Town	EUR	131	100	f
<b>Colombia</b>				
Compañía Aseguradora de Fianzas S.A. Confianza, Bogota	COP	234 203	51	f
<b>United States</b>				
First Specialty Insurance Corporation, Jefferson City	USD	5	100	f
iptiQ Americas Inc., Wilmington	USD	0.0001	100	f
Lumico Life Insurance Company, Jefferson City	USD	0	100	f
North American Capacity Insurance Company, Manchester	USD	4	100	f
North American Elite Insurance Company, Kansas City	USD	4	100	f
North American Specialty Insurance Company, Kansas City	USD	5	100	f
Pecan Re Inc., Colchester	USD	5	100	f
Pillar RE Holdings LLC, Wilmington	USD	0.001	100	f
SR Corporate Solutions America Holding Corporation, Wilmington	USD	0.00001	100	f
SRE HL PE 1 (Master) LP, Wilmington	EUR	305	100	f
SREH HL PE 1 (Master) LP, Wilmington	EUR	417	100	f
SRZ HL PE 1 (Master) LP, Wilmington	USD	347	100	f
Swiss Re America Holding Corporation, Wilmington	USD	0.1	100	f
Swiss Re Corporate Solutions Global Markets Inc., Wilmington	USD	0	100	f
Swiss Re Financial Markets Corporation, Wilmington	USD	0	100	f
Swiss Re Financial Products Corporation, Wilmington	USD	0.00001	100	f
Swiss Re Life & Health America Holding Company, Wilmington	USD	0.001	100	f
Swiss Re Life & Health America Inc., Jefferson City	USD	4	100	f
Swiss Re Management (US) Corporation, Wilmington	USD	0.0001	100	f
Swiss Re Property & Casualty America Inc., Kansas City	USD	1	100	f
Swiss Re Risk Solutions Corporation, Wilmington	USD	0	100	f
Swiss Re Treasury (US) Corporation, Wilmington	USD	0.00001	100	f
Swiss Reinsurance America Corporation, Armonk	USD	10	100	f
Washington International Insurance Company, Kansas City	USD	4	100	f
Westport Insurance Corporation, Jefferson City	USD	6	100	f
Wing Re Inc., Jefferson City	USD	0.3	100	f
Wing Re II Inc., Jefferson City	USD	0.3	100	f
Elips Life Insurance Company, Jefferson City	USD	0	100	f

	Share capital (millions)	Affiliation in % as of 31.12.2021	Method of consolidation	
<b>Africa</b>				
<b>South Africa</b>				
Swiss Re Africa Limited, Cape Town	ZAR	2	100	f
<b>Asia-Pacific</b>				
<b>Australia</b>				
Swiss Re Australia Ltd, Sydney	AUD	845	100	f
Swiss Re Life & Health Australia Limited, Sydney	AUD	980	100	f
<b>China</b>				
Swiss Re Corporate Solutions Insurance China Ltd, Shanghai	CNY	669	100	f
<b>Singapore</b>				
Swiss Re Asia Holding Pte. Ltd., Singapore	USD	0.1	100	f
Swiss Re Asia Pte. Ltd., Singapore	USD	3 002	100	f
Swiss Re Principal Investments Company Asia Pte. Ltd., Singapore	USD	0.1	100	f
<b>India</b>				
Swiss Re Global Business Solutions India Private Limited, Bangalore	INR	150	100	f

Significance is defined by the total assets of the subsidiaries and the carrying value of the equity investees in relation to the total assets of the Group. The threshold is set at 0.05%.

Subsidiaries with share capital of less than 1 million (local currency) have been disclosed to the nearest decimal place.

#### Method of consolidation

f full  
e equity

## 22 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, in most cases it does not have power over the fund's investment decisions or unilateral kick-out rights relative to the decision maker.

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

### Senior commercial mortgage and infrastructure loans

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

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

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

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

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

### Other

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

The Group did not provide financial or other support to any VIEs during 2021 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	2020	2021
Fixed income securities available-for-sale	3 807	3 362
Short-term investments	59	42
Cash and cash equivalents	20	77
Accrued investment income	30	29
Premiums and other receivables	35	22
Funds held by ceding companies	1	4
Deferred acquisition costs	5	7
Deferred tax assets	191	126
Other assets	14	19
<b>Total assets</b>	<b>4 162</b>	<b>3 688</b>
Unpaid claims and claim adjustment expenses	59	89
Unearned premiums	16	25
Funds held under reinsurance treaties	4	4
Reinsurance balances payable	22	24
Deferred and other non-current tax liabilities	166	109
Accrued expenses and other liabilities	18	7
Long-term debt	1 926	1 859
<b>Total liabilities</b>	<b>2 211</b>	<b>2 117</b>

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	2020	2021
Fixed income securities available-for-sale	1 322 <sup>1</sup>	1 465
Equity securities at fair value through earnings	100	114
Policy loans, mortgages and other loans	1 518	1 774
Other invested assets	2 359	3 190
Investments for unit-linked and with-profit business	145	142
Funds held by ceding companies	25	
<b>Total assets</b>	<b>5 469</b>	<b>6 685</b>
Unpaid claims and claim adjustment expenses	19	
Accrued expenses and other liabilities	52	35
<b>Total liabilities</b>	<b>71</b>	<b>35</b>

<sup>1</sup> The Group has revised the scope of its insurance-linked securitisations holdings. The revision had no impact on net income or shareholders' equity. The comparatives have been adjusted accordingly.

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	Total assets	Total liabilities	2020 Maximum exposure to loss <sup>1</sup>	Total assets	Total liabilities	2021 Maximum exposure to loss <sup>1</sup>
Insurance-linked securitisations	783 <sup>3</sup>		796 <sup>3</sup>	837		855
Life and health funding vehicles	20		2 377	16		2 392
Swaps in trusts	14	52	- <sup>2</sup>	60	35	- <sup>2</sup>
Investment vehicles	2 435		2 435	3 244		3 244
Investment vehicles for unit-linked business	145			142		
Senior commercial mortgage and infrastructure loans	2 047		2 047	2 386		2 386
Other	25	19				
<b>Total</b>	<b>5 469</b>	<b>71</b>	<b>-<sup>2</sup></b>	<b>6 685</b>	<b>35</b>	<b>-<sup>2</sup></b>

<sup>1</sup> 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.

<sup>2</sup> The maximum exposure to loss for swaps in trusts cannot be meaningfully quantified due to their derivative character.

<sup>3</sup> The Group has revised the scope of its insurance-linked securitisations holdings. The revision had no impact on net income or shareholders' equity. The comparatives have been adjusted accordingly.

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.



## 23 Subsequent events

### **Sale of stake in Phoenix Group Holdings Plc.**

In January 2022, Swiss Re sold its remaining 6.6% stake in Phoenix Group Holdings Plc.

The Group financial statements and related notes presented in this report are not impacted by the sale.

### **Military conflict in Ukraine**

The military conflict unfolding in Ukraine, and the resulting trade and economic sanctions, are likely to have geopolitical, economic, business and financial asset implications that are difficult to predict at this stage. Group's exposures linked to the military conflict are being monitored and evaluated.

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# Statutory Auditor's Report

To the General Meeting of Swiss Re Ltd, Zurich

## Report on the Audit of the Consolidated Financial Statements

### Opinion

We have audited the consolidated financial statements of Swiss Re Ltd and its subsidiaries (the Group), which comprise the consolidated balance sheet as of 31 December 2021 and the related consolidated income statement, statement of comprehensive income, statement of shareholders' equity, and statement of cash flows for the year then ended, and the related notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements (pages 198 to 301) present fairly, in all material respects, the financial position of the Group as of 31 December 2021, and the results of its operations and its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles and comply with Swiss law.

### Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group, and have fulfilled our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit, which include relevant ethical requirements in the United States of America, with the provisions of Swiss law and the requirements of the Swiss audit profession. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Key Audit Matters based on the circular 1/2015 of the Federal Audit Oversight Authority



**VALUATION OF LEVEL 3 INVESTMENTS**



**VALUATION OF LIFE AND HEALTH RESERVES**



**VALUATION OF PROPERTY AND CASUALTY RESERVES**



**VALUATION OF DEFERRED TAX ASSETS ON LOSS CARRYFORWARDS**

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



## VALUATION OF LEVEL 3 INVESTMENTS

### Key Audit Matter

The Group has recorded Level 3 investments held at fair value of \$1,550 million as of 31 December 2021. Level 3 investments are included in the fixed income securities, other invested assets, and accrued expenses and other liabilities line items on the consolidated balance sheet.

Level 3 investments, including fixed income securities (private placements and infrastructure loans), derivatives, and other invested assets, trade infrequently and therefore have little or no price transparency. The Group's estimation of fair value relies on unobservable assumptions, such as liquidity or credit considerations. The determination of these unobservable assumptions requires subjectivity and judgment as these assumptions are generally not based on market activity. Unobservable assumptions, such as liquidity or credit considerations, among others, are based on internal estimates. The greater the number of unobservable assumptions used, the greater the amount of judgment used to determine the estimate.

The valuation of Level 3 investments has been designated as a key audit matter due to the increased extent of audit effort, including the involvement of specialists with specialized skills and knowledge. Auditing the unobservable inputs for Level 3 investments required a high degree of auditor judgment.

For further information on the valuation of Level 3 financial instruments refer to the following:

- Note 1
- Note 7
- Note 8

### Our response

As part of our audit, we gained an understanding of the process related to the valuation of certain Level 3 investments. Further, we tested the design and implementation of certain key controls within the process, including the independent price verification and impairment analyses.

We tested the completeness, and accuracy of the data used in the fair value estimation by reconciling to source information.

We involved our valuation specialists with specialized skills and knowledge, as applicable, who assisted the audit team in:

- Assessing the pricing methodologies with reference to relevant accounting standards, and industry practice.
- Developing an independent estimate for a selection of securities, and comparison of the independent estimate to the Group's fair value estimate.
- Evaluating the assumptions used to determine the fair value of other investments by comparing to industry benchmarks.



## VALUATION OF LIFE AND HEALTH RESERVES

### Key Audit Matter

The Group has recorded life and health reserves of \$45,628 million as of 31 December 2021. Life, and health reserves are included in the life and health related unpaid claims and claim adjustment expenses, liabilities for life and health policy benefits, and

### Our response

As part of our audit, we gained an understanding of the process related to the valuation of life and health reserves. Further, we tested the design and implementation of certain key controls within the



policyholder account balances line items on the consolidated balance sheet (collectively, life and health reserves).

The determination or revision of assumptions requires subjectivity and judgment as these assumptions are generally not based on observable market inputs. These assumptions include mortality, morbidity, withdrawals, persistency (lapse), benefit termination rates and lag factors. Additional uncertainties related to the mortality assumption have arisen due to the on-going Coronavirus pandemic.

The valuation of life and health reserves has been designated as a key audit matter given the material nature of the balance and the significant estimation uncertainty and complexity of the mortality, morbidity, withdrawals, persistency (lapse), benefit termination rates and lag factors. Auditing the estimate involved a high degree of auditor judgment and increased extent of audit effort, including the involvement of specialists with specialized skills and knowledge.

For further information on the valuation of life and health reserves refer to the following:

- Note 1
- Note 5

process, including the independent actuarial peer review and reserving committee level reviews.

We tested the completeness, and accuracy of the underlying policyholder contract data by reconciling to source information.

We involved our actuarial specialists with specialized skills, and knowledge, as applicable, who assisted the audit team in:

- Evaluating the methods applied to select the mortality, morbidity, persistency (lapse), benefit termination rates and lag factor assumptions by comparing them to generally accepted actuarial techniques;
- Challenging the selected mortality, morbidity, persistency (lapse), benefit termination rates and lag factor assumptions where deviations from Group or industry experience were observed;
- Recalculating the liabilities for a risk based sample and comparing the results of the recalculations to the Group's estimates.



## VALUATION OF PROPERTY AND CASUALTY RESERVES

### Key Audit Matter

The Group has recorded property and casualty reserves of \$65,811 million as of 31 December 2021. Property and casualty reserves is included in the property and casualty related unpaid claims and claim adjustment expenses line item on the consolidated balance sheet.

The determination of assumptions used to develop the estimate requires subjectivity and judgment as these assumptions are generally not based on observable market inputs. Among the most significant assumptions are the initial estimates of loss ratios, which are used to estimate liabilities in the most recent accident years. Other assumptions include but are not limited to changes in exposure, inflation trends, claims emergence trends, and other legal or regulatory decisions. Additional uncertainties related to these assumptions have arisen due to the on-going

### Our response

As part of our audit, we gained an understanding of the process related to the valuation of property and casualty reserves. Further, we tested the design, and implementation of certain key controls within the process, including the independent peer review and committee level reviews.

We tested the completeness, and accuracy of the underlying data by reconciling to source information, and validating the appropriateness of claims triangles.

We involved our actuarial specialists with specialized skills, and knowledge, as applicable, who assisted the audit team in:



Coronavirus pandemic. This includes legal interpretations of event aggregation clauses as well as terms and conditions, risks related to claims reporting, and social inflation.

Property and casualty reserves associated with long-tail lines of business, such as Liability, Asbestos and Environmental and Motor, generally require more subjectivity, and judgment due to the length of the claim reporting period resulting in increased volatility of claims frequency, and severity trends.

The valuation of property and casualty reserves has been designated as a key audit matter given the material nature of the balance and the significant estimation uncertainty and complexity of the actuarial assumptions. Auditing the estimate involved a high degree of auditor judgment and increased extent of audit effort, including the involvement of specialists with specialized skills and knowledge.

For further information on the valuation of property and casualty reserves refer to the following:

- Note 1
- Note 5

- Evaluating the methods applied to select the actuarial assumptions by comparing them to generally accepted actuarial techniques;
- Evaluating the Group's estimates by performing independent calculations of property and casualty reserves for certain lines of business;
- For certain lines of business where we performed independent calculations, developing a range of reserve estimates and assessing the position of the Group's recorded reserve relative to the range;
- Assessing the Group's internally prepared actuarial analyses in comparison to internal experience, and related industry trends for certain lines of business.



## VALUATION OF DEFERRED TAX ASSETS ON LOSS CARRYFORWARDS

### Key Audit Matter

The Group has recorded deferred tax assets of \$6,131 million (net of a valuation allowance of \$388 million) as of 31 December 2021.

The recoverability of deferred tax assets, resulting from net operating losses, and temporary differences, is based on assumptions, including future profitability. The determination of assumptions requires subjectivity and judgment as the assumptions are based on internal estimates.

The valuation of deferred tax assets has been designated as a key audit matter given changes in the estimate could have a material impact on net income (through income tax expense). Auditing the estimate involved a high degree of auditor judgment and increased extent of audit effort, including the involvement of specialized skills and knowledge, due to the estimation uncertainty associated with the assumptions.

### Our response

As part of our audit, we gained an understanding of the process related to the valuation of deferred tax assets. Further, we tested the design, and implementation of certain key controls within the process, including independent review of items for valuation and recognition.

We tested the completeness, and accuracy of the underlying data by reconciling to source information.

We involved our tax specialists with specialized skills, and knowledge, as applicable, who assisted the audit team in:

- Assessing the future profitability assumption by performing sensitivity analyses, and the feasibility of the tax planning measures.



For further information on the valuation of deferred tax assets on loss carryforwards refer to the following:

- Note 1
- Note 14

### **Other Matter**

The consolidated financial statements of the Group for the year ended 31 December 2020 were audited by another auditor who expressed an unmodified opinion on those statements on 17 March 2021.

### **Responsibilities of the Board of Directors for the Consolidated Financial Statements**

The Board of Directors is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with U.S. generally accepted accounting principles and the provisions of Swiss law, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Group's ability to continue as a going concern for one year after the date that the consolidated financial statements are available to be issued; to disclose, as applicable, matters related to going concern; and to use the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

### **Auditor's Responsibilities for the Audit of the Consolidated Financial Statements**

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS, Swiss Law, and Swiss Auditing Standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the consolidated financial statements.

In performing an audit in accordance with GAAS, Swiss Law, and Swiss Auditing Standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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.



- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management, as well as evaluate the overall presentation of the consolidated financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Group's ability to continue as a going concern for a reasonable period of time.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision, and performance of the group audit of the Group. We remain solely responsible for our audit opinion.

We are required to communicate with the Board of Directors regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters, including any significant deficiencies, that we identified during the audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

#### **Other Information in the Annual Report**

The Board of Directors is responsible for the other information included in the annual report. The other information comprises the information included in the annual report, with the exception of the consolidated financial statements, the stand-alone financial statements of the company, the compensation report and our auditor's report thereon. Our opinion on the financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report. We have nothing to report in this regard.





## Report on Other Legal and Regulatory Requirements

In accordance with article 728a para. 1 item 3 CO and the Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of the consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

KPMG AG

Dr. Frank Pfaffenzeller

Licensed Audit Expert

Auditor in charge

Zurich, 16 March 2022

Eric James Elman

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# Group financial years 2012–2021

USD millions	2012 <sup>1</sup>	2013	2014
<b>Income statement</b>			
<b>Revenues</b>			
Premiums earned	24 661	28 276	30 756
Fee income	785	542	506
Net investment income	5 302	4 735	4 992
Net realised investment gains/losses	2 688	3 325	1 059
Other revenues	188	24	34
<b>Total revenues</b>	<b>33 624</b>	<b>36 902</b>	<b>37 347</b>
<b>Expenses</b>			
Claims and claim adjustment expenses	-7 763	-9 655	-10 577
Life and health benefits	-8 878	-9 581	-10 611
Return credited to policyholders	-2 959	-3 678	-1 541
Acquisition costs	-4 548	-4 895	-6 515
Other operating costs and expenses	-3 953	-4 268	-3 876
<b>Total expenses</b>	<b>-28 101</b>	<b>-32 077</b>	<b>-33 120</b>
<b>Income/loss before income tax expense/benefit</b>	<b>5 523</b>	<b>4 825</b>	<b>4 227</b>
Income tax expense/benefit	-1 125	-312	-658
<b>Net income/loss before attribution of non-controlling interests</b>	<b>4 398</b>	<b>4 513</b>	<b>3 569</b>
Income/loss attributable to non-controlling interests	-141	-2	
<b>Net income/loss after attribution of non-controlling interests</b>	<b>4 257</b>	<b>4 511</b>	<b>3 569</b>
Interest on contingent capital instruments, net of tax	-56	-67	-69
<b>Net income/loss attributable to common shareholders</b>	<b>4 201</b>	<b>4 444</b>	<b>3 500</b>
<b>Balance sheet</b>			
<b>Assets</b>			
Investments	152 812	150 075	143 987
Other assets	68 691	63 445	60 474
Assets held for sale			
<b>Total assets</b>	<b>221 503</b>	<b>213 520</b>	<b>204 461</b>
<b>Liabilities</b>			
Unpaid claims and claim adjustment expenses	63 670	61 484	57 954
Liabilities for life and health policy benefits	36 117	36 033	33 605
Unearned premiums	9 384	10 334	10 576
Other liabilities	62 020	57 970	53 670
Long-term debt	16 286	14 722	12 615
Liabilities held for sale			
<b>Total liabilities</b>	<b>187 477</b>	<b>180 543</b>	<b>168 420</b>
<b>Shareholders' equity</b>	<b>34 002</b>	<b>32 952</b>	<b>35 930</b>
Non-controlling interests	24	25	111
<b>Total equity</b>	<b>34 026</b>	<b>32 977</b>	<b>36 041</b>
Earnings per share in USD	11.85	12.97	10.23
Earnings per share in CHF	11.13	12.04	9.33

<sup>1</sup> The Group updated its balance sheet presentation of deferred tax assets and liabilities. Deferred tax assets and liabilities are presented on a gross basis as per the first quarter 2013. The comparative period has been adjusted accordingly and is consistent with the relevant income tax disclosure in the notes to the financial statements in the prior year.

2015	2016	2017	2018	2019	2020	2021
29 751	32 691	33 119	33 875	37 974	40 321	<b>42 467</b>
463	540	586	586	620	449	<b>259</b>
4 236	4 740	4 702	5 077	5 175	3 503	<b>3 395</b>
1 220	5 787	4 048	-2 530	5 515	-972	<b>578</b>
44	28	32	39	30	37	<b>40</b>
35 714	43 786	42 487	37 047	49 314	43 338	<b>46 739</b>
-9 848	-12 564	-16 730	-14 855	-18 683	-19 838	<b>-17 181</b>
-9 080	-10 859	-11 083	-11 769	-13 087	-13 929	<b>-14 992</b>
-1 166	-5 099	-3 298	1 033	-4 633	1 760	<b>-431</b>
-6 419	-6 928	-6 977	-6 919	-7 834	-8 236	<b>-8 228</b>
-3 882	-3 964	-3 874	-3 987	-4 168	-4 185	<b>-4 076</b>
-30 395	-39 414	-41 962	-36 497	-48 405	-44 428	<b>-44 908</b>
5 319	4 372	525	550	909	-1 090	<b>1 831</b>
-651	-749	-132	-69	-140	266	<b>-394</b>
4 668	3 623	393	481	769	-824	<b>1 437</b>
-3	3	5	-19	-42	-54	
4 665	3 626	398	462	727	-878	<b>1 437</b>
-68	-68	-67	-41			
4 597	3 558	331	421	727	-878	<b>1 437</b>
137 810	155 016	161 897	147 302	103 746	120 693	<b>116 586</b>
58 325	60 049	60 629	60 268	60 382	61 929	<b>64 981</b>
				74 439		
196 135	215 065	222 526	207 570	238 567	182 622	<b>181 567</b>
55 518	57 355	66 795	67 446	72 373	81 258	<b>84 096</b>
30 131	41 176	42 561	39 593	19 836	22 456	<b>22 196</b>
10 869	11 629	11 769	11 721	13 365	13 309	<b>14 134</b>
55 033	59 402	56 959	51 581	23 232	26 757	<b>27 140</b>
10 978	9 787	10 148	8 502	10 138	11 584	<b>10 323</b>
				68 586		
162 529	179 349	188 232	178 843	207 530	155 364	<b>157 889</b>
33 517	35 634	34 124	27 930	29 251	27 135	<b>23 568</b>
89	82	170	797	1 786	123	<b>110</b>
33 606	35 716	34 294	28 727	31 037	27 258	<b>23 678</b>
13.44	10.72	1.03	1.37	2.46	-3.04	<b>4.97</b>
12.93	10.55	1.02	1.34	2.46	-2.97	<b>4.52</b>

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