Financial Statements

This document is an extract from Swiss Re's Financial Report 2023.
The complete Financial Report 2023 is available at https://reports.swissre.com/2023/.

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Income statement

For the years ended 31 December

USD millions	Note	2022	2023
Revenues			
Gross premiums written	4	47 889	**49 954**
Net premiums written	4	43 917	**45 095**
Change in unearned premiums		–1 049	**–339**
Premiums earned	3	42 868	**44 756**
Fee income from policyholders	3	250	**247**
Net investment income – non-participating business[1]	7	2 869	**3 995**
Net realised investment gains/losses – non-participating business[2]	7	–3	**719**
Net investment result – unit-linked business	7	–43	**21**
Other revenues		57	**62**
Total revenues		45 998	**49 800**
Expenses			
Claims and claim adjustment expenses[3]	3	–19 607	**–18 646**
Life and health benefits[3]	3	–13 721	**–13 695**
Return credited to policyholders		–280	**–364**
Acquisition costs	3	–7 800	**–8 364**
Operating expenses		–3 369	**–3 737**
Total expenses before interest expenses		–44 777	**–44 806**
Income before interest and income tax expense		1 221	**4 994**
Interest expenses		–570	**–556**
Income before income tax expense		651	**4 438**
Income tax expense	14	–171	**–1 210**
Net income before attribution of non-controlling interests		480	**3 228**
Income/loss attributable to non-controlling interests		–8	**–14**
Net income attributable to common shareholders		472	**3 214**
Earnings per share in USD			
Basic	13	1.63	**11.09**
Diluted	13	1.60	**10.49**
Earnings per share in CHF[4]			
Basic	13	1.63	**9.94**
Diluted	13	1.60	**9.40**

[1] Total impairments for the years ended 31 December of USD 18 million in 2022 and nil in 2023, respectively, were fully recognised in earnings.
[2] Total impairments for the years ended 31 December of USD 70 million in 2022 and nil in 2023, respectively, were fully recognised in earnings.
[3] The Group has revised the presentation of the medical business of Elips Versicherungen AG and starting 2023 reports it under claims and claim adjustment expenses. Comparative information was adjusted accordingly.
[4] 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	2022	2023
Net income before attribution of non-controlling interests	480	**3 228**
Other comprehensive income, net of tax:		
Change in net unrealised investment gains/losses	–9 736	**2 225**
Change in other-than-temporary impairment	–2	
Change in cash flow hedges		**10**
Change in foreign currency translation	68	**–263**
Change in adjustment for pension benefits	124	**–27**
Change in credit risk of financial liabilities at fair value option	–1	**–1**
Other comprehensive income/loss attributable to non-controlling interests	–7	**25**
Total comprehensive income/loss before attribution of non-controlling interests	–9 074	**5 197**
Comprehensive income/loss attributable to non-controlling interests	–1	**–39**
Total comprehensive income/loss attributable to common shareholders	–9 075	**5 158**

Reclassification out of accumulated other comprehensive income
For the years ended 31 December

2022 USD millions	Net unrealised investment gains/losses[1]	Other-than-temporary impairment[1]	Cash flow hedges[1]	Foreign currency translation[1, 2]	Adjustment for pension benefits[3]	Credit risk of financial liabilities at fair value option	Accumulated other comprehensive income
Balance as of 1 January	2 809	–6	0	–6 216	–549	4	–3 958
Change during the period	–13 429	–2		206	132	–1	–13 094
Amounts reclassified out of accumulated other comprehensive income	1 197			–5	25		1 217
Tax	2 496			–133	–33		2 330
Balance as of period end	–6 927	–8	0	–6 148	–425	3	–13 505

2023 USD millions	Net unrealised investment gains/losses[1]	Other-than-temporary impairment[1]	Cash flow hedges[1]	Foreign currency translation[1, 2]	Adjustment for pension benefits[3]	Credit risk of financial liabilities at fair value option	**Accumulated other comprehensive income**
Balance as of 1 January	–6 927	–8	0	–6 148	–425	3	**–13 505**
Impact of ASC 326[4]	25	8					**33**
Change during the period	2 920		13	–340	–44	–2	**2 547**
Amounts reclassified out of accumulated other comprehensive income	–123			–6	3		**–126**
Tax	–572		–3	83	14	1	**–477**
Balance as of period end	**–4 677**	**0**	**10**	**–6 411**	**–452**	**2**	**–11 528**

[1] Reclassification adjustment included in net income is presented in "Net realised investment gains/losses – non-participating business".
[2] Reclassification adjustment is limited to translation gains and losses realised upon sale or upon complete or substantially complete liquidation of an investment in a foreign entity.
[3] Reclassification adjustment included in net income is presented in "Operating expenses".
[4] Impact of ASC 326 "Financial Instruments – Credit Losses". Please refer to Note 1 "Organisation and summary of significant accounting policies" for more details.

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

Balance sheet

Assets
As of 31 December

USD millions	Note	2022	2023
Investments	7, 8, 9		
Fixed income securities:			
Available-for-sale (including 12 355 in 2022 and 12 996 in 2023 subject to securities lending and repurchase agreements) (allowance for credit losses of 39 in 2023, amortised cost: 2022: 82 638; 2023: 82 145)		74 089	**76 207**
Trading (including 143 in 2022 and 119 in 2023 subject to securities lending and repurchase agreements)		484	**1 005**
Equity securities at fair value through earnings (including 12 in 2022 and 0 in 2023 subject to securities lending and repurchase agreements)		2 114	**156**
Policy loans, mortgages and other loans, net of allowance for credit losses of 36 in 2023		4 343	**5 034**
Investment real estate		2 931	**2 905**
Short-term investments (including 1 465 in 2022 and 2 339 in 2023 subject to securities lending and repurchase agreements)		8 907	**9 931**
Other invested assets, net of allowance for credit losses of 1 in 2023		8 794	**11 510**
Investments for unit-linked business (equity securities at fair value through earnings)		330	**325**
Total investments		101 992	**107 073**
Cash and cash equivalents (including 421 in 2022 and 1 191 in 2023 subject to securities lending, and 5 in 2022 and 5 in 2023 backing unit-linked contracts)		4 077	**4 583**
Accrued investment income		684	**795**
Premiums and other receivables, net of allowance for credit losses of 71 in 2022 and 92 in 2023		18 145	**19 077**
Reinsurance recoverable on unpaid claims and policy benefits, net of allowance for credit losses of 31 in 2022 and 38 in 2023		6 507	**6 104**
Funds held by ceding companies, net of allowance for credit losses of 11 in 2023		13 929	**16 178**
Deferred acquisition costs	6	8 121	**8 151**
Acquired present value of future profits	6	794	**724**
Goodwill		3 863	**3 978**
Income taxes recoverable		356	**530**
Deferred tax assets	14	8 284	**7 399**
Other assets		3 924	**4 984**
Total assets		170 676	**179 576**

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

Liabilities and Equity
As of 31 December

USD millions	Note	2022	2023
Liabilities			
Unpaid claims and claim adjustment expenses	5	85 418	**87 513**
Liabilities for life and health policy benefits		20 925	**20 624**
Policyholder account balances		4 850	**4 775**
Unearned premiums		14 747	**15 488**
Funds held under reinsurance treaties		6 921	**8 460**
Reinsurance balances payable		1 837	**2 733**
Income taxes payable		254	**305**
Deferred and other non-current tax liabilities	14	6 011	**6 415**
Short-term debt	11	786	**1 291**
Accrued expenses and other liabilities		5 866	**7 075**
Long-term debt	11	10 252	**8 526**
Total liabilities		157 867	**163 205**
Equity			
Common shares, CHF 0.10 par value			
2022: 317 497 306; 2023: 317 497 306 shares authorised and issued		30	**30**
Additional paid-in capital		293	**378**
Treasury shares, net of tax		–1 398	**–1 282**
Accumulated other comprehensive income:			
Net unrealised investment gains/losses, net of tax		–6 927	**–4 677**
Other-than-temporary impairment, net of tax		–8	
Cash flow hedges, net of tax			**10**
Foreign currency translation, net of tax		–6 148	**–6 411**
Adjustment for pension and other post-retirement benefits, net of tax		–425	**–452**
Credit risk of financial liabilities at fair value option, net of tax		3	**2**
Total accumulated other comprehensive income		–13 505	**–11 528**
Retained earnings		27 279	**28 548**
Shareholders' equity		12 699	**16 146**
Non-controlling interests		110	**225**
Total equity		12 809	**16 371**
Total liabilities and equity		170 676	**179 576**

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

Statement of shareholders' equity

For the years ended 31 December

USD millions	2022	2023
Common shares		
Balance as of 1 January	30	**30**
Balance as of period end	30	**30**
Additional paid-in capital		
Balance as of 1 January	266	**293**
Share-based compensation	13	**51**
Realised gains/losses on treasury shares	14	**34**
Balance as of period end	293	**378**
Treasury shares, net of tax		
Balance as of 1 January	–1 402	**–1 398**
Purchase of treasury shares	–44	**–8**
Issuance of treasury shares, including share-based compensation to employees	48	**124**
Balance as of period end	–1 398	**–1 282**
Net unrealised investment gains/losses, net of tax		
Balance as of 1 January	2 809	**–6 927**
Impact of ASC 326[1]		**25**
Changes during the period	–9 736	**2 225**
Balance as of period end	–6 927	**–4 677**
Other-than-temporary impairment, net of tax		
Balance as of 1 January	–6	**–8**
Impact of ASC 326[1]		**8**
Changes during the period	–2	
Balance as of period end	–8	**0**
Cash flow hedges, net of tax		
Balance as of 1 January	0	**0**
Changes during the period		**10**
Balance as of period end	0	**10**
Foreign currency translation, net of tax		
Balance as of 1 January	–6 216	**–6 148**
Changes during the period	68	**–263**
Balance as of period end	–6 148	**–6 411**
Adjustment for pension and other post-retirement benefits, net of tax		
Balance as of 1 January	–549	**–425**
Changes during the period	124	**–27**
Balance as of period end	–425	**–452**

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

USD millions	2022	2023
Credit risk of financial liabilities at fair value option, net of tax		
Balance as of 1 January	4	**3**
Changes during the period	–1	**–1**
Balance as of period end	3	**2**
Retained earnings		
Balance as of 1 January	28 632	**27 279**
Net income after attribution of non-controlling interests	472	**3 214**
Dividends on common shares	–1 825	**–1 850**
Impact of ASC 326[1]		**–95**
Balance as of period end	27 279	**28 548**
Shareholders' equity	12 699	**16 146**
Non-controlling interests		
Balance as of 1 January	110	**110**
Transactions with non-controlling interests		**79**
Income/loss attributable to non-controlling interests	8	**14**
Other comprehensive income attributable to non-controlling interests:		
Change in net unrealised investment gains/losses	–4	**8**
Change in foreign currency translation	–3	**17**
Dividends to non-controlling interests	–1	**–3**
Balance as of period end	110	**225**
Total equity	12 809	**16 371**

[1] Impact of ASC 326 "Financial Instruments – Credit Losses". Please refer to Note 1 "Organisation and summary of significant accounting policies" for more details.

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

Statement of cash flows

For the years ended 31 December

USD millions	2022	2023
Cash flows from operating activities		
Net income attributable to common shareholders	472	**3 214**
Add income/loss attributable to non-controlling interests	8	**14**
Adjustments to reconcile net income to net cash provided/used by operating activities:		
Depreciation, amortisation and other non-cash items	425	**–68**
Net realised investment gains/losses	67	**–717**
Income from equity-accounted investees, net of dividends received	258	**23**
Change in:		
Technical provisions and other reinsurance assets and liabilities, net	3 263	**1 347**
Funds held by ceding companies and under reinsurance treaties	–1 019	**–701**
Reinsurance recoverable on unpaid claims and policy benefits	–143	**203**
Other assets and liabilities, net	–460	**–185**
Income taxes payable/recoverable	–248	**686**
Derivative financial instruments and collateral, net	304	**270**
Net cash provided/used by operating activities	2 927	**4 086**
Cash flows from investing activities		
Fixed income securities:		
Sales	24 088	**19 912**
Maturities	5 447	**9 836**
Purchases	–32 393	**–29 305**
Net purchases/sales/maturities of short-term investments	–590	**–783**
Equity securities:		
Sales	2 461	**2 872**
Purchases	–1 270	**–895**
Securities purchased/sold under agreement to resell/repurchase, net	193	**–827**
Cash paid/received for acquisitions/disposals and reinsurance transactions, net	22	**–42**
Net purchases/sales/maturities of other investments	–321	**–1 152**
Net purchases/sales/maturities of investments held for unit-linked business	25	**22**
Net cash provided/used by investing activities	–2 338	**–362**
Cash flows from financing activities		
Policyholder account balances, unit-linked business:		
Deposits	18	**5**
Withdrawals	–66	**–53**
Issuance/repayment of long-term debt	1 449	**–710**
Issuance/repayment of short-term debt	–806	**–818**
Purchase/sale of treasury shares	–6	**126**
Dividends paid to shareholders	–1 825	**–1 850**
Dividends paid to non-controlling interests	–1	**–3**
Transactions with non-controlling interests		**79**
Net cash provided/used by financing activities	–1 237	**–3 224**

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

USD millions	2022	2023
Total net cash provided/used	–648	**500**
Effect of foreign currency translation	–326	**6**
Change in cash and cash equivalents	–974	**506**
Cash and cash equivalents as of 1 January	5 051	**4 077**
Cash and cash equivalents as of 31 December	4 077	**4 583**

Interest paid was USD 565 million and USD 554 million (thereof USD 8 million and USD 8 million for letter of credit fees) for 2022 and 2023, respectively. Tax paid was USD 419 million and USD 524 million for 2022 and 2023, respectively.

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.

Swiss Re Group consists of three core operating business segments: Property & Casualty Reinsurance, Life & Health Reinsurance and Corporate Solutions.

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.

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). The impact of the adoption on the Group's financial statements is being assessed. Financial statements for periods ending on or prior to 31 December 2023 have been prepared in accordance with US GAAP.

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 2023, 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 and subject to impairment. For fixed income securities AFS for which the fair value is below amortised cost and there is no intention or obligation to sell, the impairment loss is split into (i) the estimated amount relating to credit losses, and (ii) the amount relating to non-credit factors. The estimated credit loss is recognised as an allowance in earnings as a component of net realised investment gains/losses, with the remainder of the loss recognised in other comprehensive income. The allowance for credit losses is measured as the amount by which the amortised cost basis exceeds the best estimate of the present value of cash flows expected to be collected. The allowance for credit losses and the corresponding charge to earnings can be reversed as conditions change. However, the amount to be reversed is limited to the initial credit loss allowance recognised. When there is an intention or obligation to sell and the fair value is lower than amortised cost, the amortised cost of the respective security is written down to its current fair value. Subsequent recoveries are recognised in earnings as a component of net realised investment gains/losses.

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.

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. The allowance for credit losses on mortgage and other loans are estimated on an expected loss basis using a model that utilises probability of default and loss given default methods over the contractual lifetime of the instrument. The allowance is recognised in earnings as a component of net realised investment gains/losses. The allowance for credit losses and the corresponding charge to earnings can be reversed as conditions change and are recognised as adjustments to the allowance for credit losses. When all or a portion of a loan is deemed uncollectible, the uncollectible portion of the carrying amount of the loan is written- off against the allowance.

Investment in real estate that the Group intends to hold in order to earn 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 earnings. 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 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 cash flow 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 12 "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 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, ie there is no mortality and morbidity risk, or the mortality and morbidity risk associated with the insurance benefit features offered in the contract is of insignificant amount or remote probability. Amounts received as payment for investment contracts are reported as policyholder account balances. Related assets are included in general account assets except for investments for unit-linked, 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. unallocated loss adjustment expenses), 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 expected 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 principally set up based on an analysis of the credit quality 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 2023, the Group had a Leadership Performance Plan (LPP)/Leadership Share Plan (LSP), a Deferred Share Plan (DSP), restricted shares and a Global Share Participation Plan. These plans are described in more detail in Note 16 "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 12 March 2024. This is the date on which the financial statements are available to be issued.

Adoption of new accounting standards
In June 2016, the FASB issued ASC 326, "Financial Instruments – Credit Losses", which replaces the incurred loss impairment methodology with a methodology that reflects current expected credit losses (CECL). The standard is applicable to all assets such as financial instruments that are measured at amortised cost, fixed income securities available-for-sale, premium receivables, funds withheld assets and reinsurance recoverable. 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 assets in scope. The Group adopted the standard on 1 January 2023 using a modified retrospective method. As of 1 January 2023, the impact of the adoption of the standard was a reduction in opening retained earnings of USD 95 million (net of tax). The Group also adopted the required disclosures within Note 3 "Insurance information" and Note 7 "Investments". Results for reporting periods prior to 1 January 2023 are presented in accordance with the previous guidance.

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. The Group adopted the standard on 1 January 2023. The adoption did not have an impact on the Group's financial statements.

In October 2018, the FASB issued ASU 2021-08, "Accounting for Contract Assets and Contract Liabilities from Contracts with Customers", an update to Topic 805, "Business Combinations". Prior to the update, Topic 805 required all assets acquired and all liabilities assumed in a business combination to be recognized on the basis of the fair value as of the acquisition date. The amendments in ASU 2021-08 outline that contract assets and contract liabilities with a respective deferred revenue and deferred expense component acquired in a business combination should be recognized in accordance with ASC 606 "Revenue from Contracts with Customers" assuming the contractual terms as if the acquirer entered into the original contract on the same date with the same conditions when determining the recognition value. ASU 2021-08 is effective prospectively in annual and interim periods beginning after 15 December 2022. The Group adopted ASU 2021-08 as of 1 January 2023.

In March 2022, the FASB issued ASU 2022-01, "Fair Value Hedging — Portfolio Layer Method", an update to Topic 815, "Derivatives and Hedging". This ASU amends ASU 2017-12 issued in August 2017 to further simplify fair value hedge accounting. ASU 2017-12 established the "last-of-layer" method to enable the application of fair value hedging to a stated amount of closed portfolios of prepayable financial assets or one or more beneficial interests secured by a portfolio of prepayable financial instruments. The amendments in this update expand the scope of fair value hedge accounting permitting the application of the "portfolio-layer" method to portfolios of all financial assets, including both prepayable and non-prepayable financial assets. ASU 2022-01 is effective prospectively in annual and interim periods beginning after 15 December 2022. The Group adopted ASU 2022-01 as of 1 January 2023.

In September 2022, the FASB issued ASU 2022-04, "Disclosure of Supplier Finance Program Obligations", an update to Topic 405 "Liabilities- Supplier Finance Programs". This ASU applies to all entities that use supplier finance programs in connection with the purchase of goods and services and require that a buyer in a supplier finance program discloses sufficient information about the program to allow a user of financial statements to understand the program's nature, activity during the period, changes from period to period, and potential magnitude. ASU 2022-04 is effective retrospectively in annual and interim periods beginning after 15 December 2022, except for the amendment on rollforward information, which is effective in annual and interim periods beginning after 15 December 2023. The Group adopted ASU 2022-04 as of 1 January 2023 for the requirements that have become effective as of this date. 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 2024, with the effective period amended by ASU 2022-06 "Deferral of the Sunset Date of Topic 848", an update to Topic 848, "Reference Rate Reform". As of 31 December 2023, the Group applied the guidance to Topic 815 related to derivative contracts that were amended for LIBOR references due to the Adjustable Interest Rate (LIBOR) Act (the "LIBOR Act") which applies to US contracts that lack sufficient contractual provisions addressing the permanent cessation of LIBOR 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". The Group also applied the guidance to modifications of loan contracts within the scope of Topic 310 "Receivables" due to replacements of reference rates that are expected to be discontinued. These modifications are being accounted for by prospectively adjusting the effective interest rate.

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 applied ASU 2021-01 as of 31 December 2023.

Although the Group has exposure to discontinued IBORs, the transition to the new risk-free reference rates did not have a material impact, mostly due to the transition relief measures in Topic 848, "Reference Rate Reform".

Future adoption of new accounting standards

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

2 Information on business segments

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

The Group presents three core operating business segments: Property & Casualty Reinsurance, Life & Health Reinsurance and Corporate Solutions. 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.

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.

The reinsurance business is managed through two operating segments, Property & Casualty Reinsurance and Life & Health Reinsurance, operating globally, both through brokers and directly with clients, and providing 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, both Property & Casualty Reinsurance and Life & Health Reinsurance offer insurance-linked securities and other insurance-related capital market products.

The Business Unit Global Clients and Solutions, that comprises Public Sector Solutions, Reinsurance Solutions, and iptiQ, is reported across different operating segments.

Property & Casualty Reinsurance
Property & Casualty includes the business lines property, casualty (including motor) and specialty.

Life & Health Reinsurance
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.

Group items
iptiQ results are reported within the Group items segment. Group items also includes items not allocated to the core operating business segments, which encompass parts of 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 the Swiss Re Group 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 under 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

2022 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions[1]	Group items	Consolidation	Total
Revenues						
Gross premiums written	23 848	15 986	8 198	868	–1 011	47 889
Net premiums written	22 826	14 476	6 124	491		43 917
Change in unearned premiums	–798	258	–642	133		–1 049
Premiums earned	22 028	14 734	5 482	624		42 868
Fee income from policyholders		250				250
Net investment income – non-participating business	1 355	1 431	223	131	–271	2 869
Net realised investment gains/losses – non-participating business	–117	187	29	–102		–3
Net investment result – unit-linked business		–43				–43
Other revenues	27	1	3	429	–403	57
Total revenues	23 293	16 560	5 737	1 082	–674	45 998
Expenses						
Claims and claim adjustment expenses[1]	–16 344		–3 225	–38		–19 607
Life and health benefits[1]		–12 948	–339	–434		–13 721
Return credited to policyholders		–280				–280
Acquisition costs	–5 106	–1 772	–748	–174		–7 800
Operating expenses	–1 106	–840	–793	–1 033	403	–3 369
Total expenses before interest expenses	–22 556	–15 840	–5 105	–1 679	403	–44 777
Income/loss before interest and income tax expense/benefit	737	720	632	–597	–271	1 221
Interest expenses	–372	–233	–24	–212	271	–570
Income/loss before income tax expense/benefit	365	487	608	–809	0	651
Income tax expense/benefit	–53	–71	–114	67		–171
Net income/loss before attribution of non-controlling interests	312	416	494	–742	0	480
Income/loss attributable to non-controlling interests			–8			–8
Net income/loss attributable to common shareholders	312	416	486	–742	0	472
Combined ratio in %	102.4		93.1			100.5
Management expense ratio[2] in %		5.1				
Net operating margin[3] in %	3.2	4.3	11.0			2.7

[1] The Group has revised the presentation of the medical business of Elips Versicherungen AG and starting 2023 reports it under claims and claim adjustment expenses. Comparative information was adjusted accordingly.
[2] Management expense ratio is calculated as "Operating expenses" divided by "Total revenues" excluding "Net realised investment gains/losses – non-participating business" and "Net investment result – unit-linked business".
[3] Net operating margin is calculated as "Income/loss before interest and income tax expense/benefit" divided by "Total revenues" excluding "Net investment result – unit-linked business".

Business segments – income statement
For the year ended 31 December

2023 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
Revenues						
Gross premiums written	24 367	16 909	8 152	1 436	–910	49 954
Net premiums written	22 878	15 391	5 643	1 183		45 095
Change in unearned premiums	3	10	–164	–188		–339
Premiums earned	22 881	15 401	5 479	995		44 756
Fee income from policyholders		247				247
Net investment income – non-participating business	1 981	1 848	401	222	–457	3 995
Net realised investment gains/losses – non-participating business	65	347	58	249		719
Net investment result – unit-linked business		21				21
Other revenues	30	1	5	545	–519	62
Total revenues	**24 957**	**17 865**	**5 943**	**2 011**	**–976**	**49 800**
Expenses						
Claims and claim adjustment expenses	–15 075		–3 420	–151		–18 646
Life and health benefits		–13 061		–634		–13 695
Return credited to policyholders		–364				–364
Acquisition costs	–5 376	–1 998	–733	–257		–8 364
Operating expenses	–1 386	–905	–869	–1 096	519	–3 737
Total expenses before interest expenses	**–21 837**	**–16 328**	**–5 022**	**–2 138**	**519**	**–44 806**
Income/loss before interest and income tax expense/benefit	**3 120**	**1 537**	**921**	**–127**	**–457**	**4 994**
Interest expenses	–581	–210	–29	–193	457	–556
Income/loss before income tax expense/benefit	**2 539**	**1 327**	**892**	**–320**	**0**	**4 438**
Income tax expense/benefit	–672	–351	–206	19		–1 210
Net income/loss before attribution of non-controlling interests	**1 867**	**976**	**686**	**–301**	**0**	**3 228**
Income/loss attributable to non-controlling interests	–6		–8			–14
Net income/loss attributable to common shareholders	**1 861**	**976**	**678**	**–301**	**0**	**3 214**
Combined ratio[1] in %	94.8		91.7			94.2
Management expense ratio[2] in %		5.2				
Net operating margin[3] in %	12.5	8.6	15.5			10.0

[1] The Group has prospectively, as from Q1 2023, revised the methodology used to calculate the combined ratio to include interest on funds withheld.
[2] Management expense ratio is calculated as "Operating expenses" divided by "Total revenues" excluding "Net realised investment gains/losses – non-participating business" and "Net investment result – unit-linked business".
[3] Net operating margin is calculated as "Income/loss before interest and income tax expense/benefit" divided by "Total revenues" excluding "Net investment result – unit-linked business".

Business segments – balance sheet
As of 31 December

2022 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
Assets						
Fixed income securities	38 918	27 220	7 922	513		74 573
Equity securities	1 110	268	116	620		2 114
Other investments	18 265	3 549	371	4 107	–10 224	16 068
Short-term investments	4 367	2 795	1 451	294		8 907
Investments for unit-linked business		330				330
Cash and cash equivalents	1 605	1 715	718	39		4 077
Deferred acquisition costs	2 675	4 520	489	437		8 121
Acquired present value of future profits		794				794
Reinsurance recoverable	1 865	2 211	6 413	273	–4 255	6 507
Other reinsurance assets	17 024	12 335	3 135	216	–636	32 074
Goodwill	1 859	1 791	184	29		3 863
Other	12 406	9 221	3 115	4 058	–15 552	13 248
Total assets	100 094	66 749	23 914	10 586	–30 667	170 676
Liabilities						
Unpaid claims and claim adjustment expenses	58 317	16 784	13 914	662	–4 259	85 418
Liabilities for life and health policy benefits		19 426	625	874		20 925
Policyholder account balances		4 850				4 850
Other reinsurance liabilities	16 842	2 000	5 341	361	–1 039	23 505
Short-term debt	720			909	–843	786
Long-term debt	4 962	9 670	499	2 971	–7 850	10 252
Other	13 389	11 424	1 335	2 659	–16 676	12 131
Total liabilities	94 230	64 154	21 714	8 436	–30 667	157 867
Shareholders' equity	5 856	2 595	2 098	2 150	0	12 699
Non-controlling interests	8		102			110
Total equity	5 864	2 595	2 200	2 150	0	12 809
Total liabilities and equity	100 094	66 749	23 914	10 586	–30 667	170 676

Business segments – balance sheet
As of 31 December

2023 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
Assets						
Fixed income securities	42 567	25 974	8 069	602		77 212
Equity securities	53	56	17	30		156
Other investments	18 006	5 099	464	2 803	–6 923	19 449
Short-term investments	5 141	3 122	1 510	158		9 931
Investments for unit-linked business		325				325
Cash and cash equivalents	2 347	816	826	594		4 583
Deferred acquisition costs	2 634	4 565	452	500		8 151
Acquired present value of future profits		724				724
Reinsurance recoverable	1 450	2 065	6 188	272	–3 871	6 104
Other reinsurance assets	18 565	13 299	3 602	578	–789	35 255
Goodwill	1 929	1 823	197	29		3 978
Other	16 257	13 210	4 577	5 412	–25 748	13 708
Total assets	**108 949**	**71 078**	**25 902**	**10 978**	**–37 331**	**179 576**
Liabilities						
Unpaid claims and claim adjustment expenses	58 569	17 620	14 333	864	–3 873	87 513
Liabilities for life and health policy benefits		19 103	596	925		20 624
Policyholder account balances		4 775				4 775
Other reinsurance liabilities	18 684	2 413	6 023	725	–1 164	26 681
Short-term debt	348	290	499	499	–345	1 291
Long-term debt	4 777	6 660		2 001	–4 912	8 526
Other	20 635	14 469	1 532	4 196	–27 037	13 795
Total liabilities	**103 013**	**65 330**	**22 983**	**9 210**	**–37 331**	**163 205**
Shareholders' equity	**5 853**	**5 748**	**2 777**	**1 768**	**0**	**16 146**
Non-controlling interests	83		142			225
Total equity	**5 936**	**5 748**	**2 919**	**1 768**	**0**	**16 371**
Total liabilities and equity	**108 949**	**71 078**	**25 902**	**10 978**	**–37 331**	**179 576**

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

2022 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	10 478	9 462	3 908		23 848
Net premiums written	9 551	9 405	3 870		22 826
Change in unearned premiums	–460	–70	–268		–798
Premiums earned	9 091	9 335	3 602		22 028
Net investment income				1 355	1 355
Net realised investment gains/losses				–117	–117
Other revenues				27	27
Total revenues	9 091	9 335	3 602	1 265	23 293
Expenses					
Claims and claim adjustment expenses	–6 764	–7 229	–2 351		–16 344
Acquisition costs	–1 732	–2 565	–809		–5 106
Operating expenses	–474	–436	–196		–1 106
Total expenses before interest expenses	–8 970	–10 230	–3 356	0	–22 556
Income/loss before interest and income tax expense	121	–895	246	1 265	737
Interest expenses				–372	–372
Income/loss before income tax expense	121	–895	246	893	365
Combined ratio in %	98.7	109.6	93.2		102.4

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

2023 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	10 784	9 132	4 451		24 367
Net premiums written	9 424	9 065	4 389		22 878
Change in unearned premiums	–106	314	–205		3
Premiums earned	9 318	9 379	4 184		22 881
Net investment income				1 981	1 981
Net realised investment gains/losses				65	65
Other revenues				30	30
Total revenues	**9 318**	**9 379**	**4 184**	**2 076**	**24 957**
Expenses					
Claims and claim adjustment expenses	–4 051	–8 909	–2 115		–15 075
Acquisition costs	–1 747	–2 595	–1 034		–5 376
Operating expenses	–590	–507	–289		–1 386
Total expenses before interest expenses	**–6 388**	**–12 011**	**–3 438**	**0**	**–21 837**
Income/loss before interest and income tax expense	**2 930**	**–2 632**	**746**	**2 076**	**3 120**
Interest expenses				–581	–581
Income/loss before income tax expense	**2 930**	**–2 632**	**746**	**1 495**	**2 539**
Combined ratio[1] in %	68.5	126.7	82.1		94.8

[1] The Group has prospectively, as from Q1 2023, revised the methodology used to calculate the combined ratio to include interest on funds withheld.

c) Life & Health Reinsurance business segment – by line of business
For the year ended 31 December

2022 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	11 351	4 635		15 986
Net premiums written	10 108	4 368		14 476
Change in unearned premiums	132	126		258
Premiums earned	10 240	4 494		14 734
Fee income from policyholders	250			250
Net investment income – non-participating business	1 171	260		1 431
Net realised investment gains/losses – non-participating business	58	–2	131	187
Net investment result – unit-linked business	–43			–43
Other revenues	1			1
Total revenues	11 677	4 752	131	16 560
Expenses				
Life and health benefits	–9 427	–3 521		–12 948
Return credited to policyholders	–280			–280
Acquisition costs	–1 132	–640		–1 772
Operating expenses	–553	–287		–840
Total expenses before interest expenses	–11 392	–4 448	0	–15 840
Income before interest and income tax expense	285	304	131	720
Interest expenses			–233	–233
Income/loss before income tax expense	285	304	–102	487
Management expense ratio[1] in %	4.7	6.0		5.1
Net operating margin[2] in %	2.4	6.4		4.3

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

Life & Health Reinsurance business segment – by line of business
For the year ended 31 December

2023 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	11 954	4 955		16 909
Net premiums written	10 678	4 713		15 391
Change in unearned premiums	–51	61		10
Premiums earned	10 627	4 774		15 401
Fee income from policyholders	247			247
Net investment income – non-participating business	1 365	483		1 848
Net realised investment gains/losses – non-participating business	72	–9	284	347
Net investment result – unit-linked business	21			21
Other revenues	1			1
Total revenues	**12 333**	**5 248**	**284**	**17 865**
Expenses				
Life and health benefits	–9 289	–3 772		–13 061
Return credited to policyholders	–364			–364
Acquisition costs	–1 288	–710		–1 998
Operating expenses	–603	–302		–905
Total expenses before interest expenses	**–11 544**	**–4 784**	**0**	**–16 328**
Income before interest and income tax expense	**789**	**464**	**284**	**1 537**
Interest expenses			–210	–210
Income before income tax expense	**789**	**464**	**74**	**1 327**
Management expense ratio[1] in %	4.9	5.7		5.2
Net operating margin[2] in %	6.4	8.8		8.6

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

d) Group items business segment
For the year ended 31 December

2022 USD millions	iptiQ	Other	Total
Revenues			
Gross premiums written	851	17	868
Net premiums written	475	16	491
Change in unearned premiums	7	126	133
Premiums earned	482	142	624
Net investment income – non-participating business	–21	152	131
Net realised investment gains/losses	–18	–84	–102
Other revenues	29	400	429
Total revenues	472	610	1 082
Expenses			
Claims and claim adjustment expenses	–38		–38
Life and health benefits	–323	–111	–434
Acquisition costs	–144	–30	–174
Operating expenses	–329	–704	–1 033
Total expenses before interest expenses	–834	–845	–1 679
Income/loss before interest and income tax expense/benefit	–362	–235	–597
Interest expenses	–1	–211	–212
Income/loss before income tax expense/benefit	–363	–446	–809
Income tax expense/benefit	22	45	67
Net income/loss	–341	–401	–742

Group items business segment
For the year ended 31 December

2023 USD millions	iptiQ	Other	Total
Revenues			
Gross premiums written	1 100	336	1 436
Net premiums written	861	322	1 183
Change in unearned premiums	–188		–188
Premiums earned	673	322	995
Net investment income – non-participating business	39	183	222
Net realised investment gains/losses		249	249
Other revenues	38	507	545
Total revenues	**750**	**1 261**	**2 011**
Expenses			
Claims and claim adjustment expenses	–151		–151
Life and health benefits	–360	–274	–634
Acquisition costs	–191	–66	–257
Operating expenses	–295	–801	–1 096
Total expenses before interest expenses	**–997**	**–1 141**	**–2 138**
Income/loss before interest and income tax expense/benefit	**–247**	**120**	**–127**
Interest expenses		–193	–193
Income/loss before income tax expense/benefit	**–247**	**–73**	**–320**
Income tax expense/benefit	24	–5	19
Net income/loss	**–223**	**–78**	**–301**

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	2022	**2023**
Americas	22 151	22 330
Europe (including Middle East and Africa)	13 211	14 561
Asia-Pacific	7 756	8 112
Total	43 118	**45 003**

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

USD millions	2022	**2023**
United States	19 557	20 080
United Kingdom	3 878	4 092
Australia	1 830	1 848
Canada	1 517	1 689
China	1 619	1 537
Ireland	1 021	1 330
Germany	1 349	1 160
Japan	1 160	1 099
South Korea	699	1 034
France	996	954
Liechtenstein	317	792
Other	9 175	9 388
Total	43 118	**45 003**

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

2022 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Premiums earned, thereof:					
Direct			6 224	810	7 034
Reinsurance	22 157	16 183	1 072	137	39 549
Intra-group transactions (assumed and ceded)	791		–482	–309	0
Premiums earned before retrocession to external parties	22 948	16 183	6 814	638	46 583
Retrocession to external parties	–920	–1 449	–1 332	–14	–3 715
Net premiums earned	22 028	14 734	5 482	624	42 868
Fee income from policyholders, thereof:					
Direct					0
Reinsurance		251			251
Gross fee income before retrocession to external parties		251			251
Retrocession to external parties		–1			–1
Net fee income	0	250	0	0	250

2023 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Premiums earned, thereof:					
Direct			6 453	962	7 415
Reinsurance	23 464	16 904	1 190	331	41 889
Intra-group transactions (assumed and ceded)	708	1	–428	–281	0
Premiums earned before retrocession to external parties	24 172	16 905	7 215	1 012	49 304
Retrocession to external parties	–1 291	–1 504	–1 736	–17	–4 548
Net premiums earned	**22 881**	**15 401**	**5 479**	**995**	**44 756**
Fee income from policyholders, thereof:					
Direct					0
Reinsurance		248			248
Gross fee income before retrocession to external parties		248			248
Retrocession to external parties		–1			–1
Net fee income	**0**	**247**	**0**	**0**	**247**

Claims and claim adjustment expenses

For the year ended 31 December

2022 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Claims paid, thereof:					
Gross claims paid to external parties	–12 949	–14 212	–4 286	–480	–31 927
Intra-group transactions (assumed and ceded)	–744	–8	616	136	0
Claims before receivables from retrocession to external parties	–13 693	–14 220	–3 670	–344	–31 927
Retrocession to external parties	407	1 330	736	8	2 481
Net claims paid	–13 286	–12 890	–2 934	–336	–29 446
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:					
Gross – with external parties	–3 388	–85	–305	–262	–4 040
Intra-group transactions (assumed and ceded)	292	8	–428	128	0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties	–3 096	–77	–733	–134	–4 040
Retrocession to external parties	38	19	103	–2	158
Net unpaid claims and claim adjustment expenses; life and health benefits	–3 058	–58	–630	–136	–3 882
Claims and claim adjustment expenses; life and health benefits	–16 344	–12 948	–3 564	–472	–33 328

Acquisition costs

For the year ended 31 December

2022 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Acquisition costs, thereof:					
Gross acquisition costs with external parties	–5 106	–2 075	–1 038	–218	–8 437
Intra-group transactions (assumed and ceded)	–125	–2	87	40	0
Acquisition costs before impact of retrocession to external parties	–5 231	–2 077	–951	–178	–8 437
Retrocession to external parties	125	305	203	4	637
Net acquisition costs	–5 106	–1 772	–748	–174	–7 800

Claims and claim adjustment expenses
For the year ended 31 December

2023 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Claims paid, thereof:					
Gross claims paid to external parties	–14 843	–14 090	–4 443	–832	–34 208
Intra-group transactions (assumed and ceded)	–740		518	222	0
Claims before receivables from retrocession to external parties	–15 583	–14 090	–3 925	–610	–34 208
Retrocession to external parties	412	1 324	1 007	25	2 768
Net claims paid	**–15 171**	**–12 766**	**–2 918**	**–585**	**–31 440**
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:					
Gross – with external parties	166	–399	–250	–189	–672
Intra-group transactions (assumed and ceded)	324		–333	9	0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties	490	–399	–583	–180	–672
Retrocession to external parties	–394	104	81	–20	–229
Net unpaid claims and claim adjustment expenses; life and health benefits	**96**	**–295**	**–502**	**–200**	**–901**
Claims and claim adjustment expenses; life and health benefits	**–15 075**	**–13 061**	**–3 420**	**–785**	**–32 341**

Acquisition costs
For the year ended 31 December

2023 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Acquisition costs, thereof:					
Gross acquisition costs with external parties	–5 482	–2 154	–1 029	–287	–8 952
Intra-group transactions (assumed and ceded)	–99		71	28	0
Acquisition costs before impact of retrocession to external parties	–5 581	–2 154	–958	–259	–8 952
Retrocession to external parties	205	156	225	2	588
Net acquisition costs	**–5 376**	**–1 998**	**–733**	**–257**	**–8 364**

Reinsurance recoverable on unpaid claims and policy benefits
As of 31 December 2022 and 2023, the Group had a reinsurance recoverable of USD 6 507 million and USD 6 104 million, respectively. The concentration of credit risk is regularly monitored and evaluated. The reinsurance programme with Berkshire Hathaway Inc. and its subsidiaries accounted for 24% and 27% of the Group's reinsurance recoverable as of year-end 2022 and 2023, respectively.

Reinsurance receivables
Reinsurance receivables as of 31 December were as follows:

USD millions	2022	**2023**
Premium receivables invoiced	4 717	4 804
Receivables invoiced from ceded re/insurance business	517	819
Assets arising from the application of the deposit method of accounting and meeting the definition of financing receivables	614	804

Allowance for credit losses
A reconciliation of the opening and closing allowance for credit losses related to premiums and other receivables and reinsurance recoverable on unpaid claims and policy benefits is presented as follows:

2023 USD millions	Premiums and other receivables	Reinsurance recoverable on unpaid claims and policy benefits
Balance as of 1 January	-71	-31
Impact of ASC 326[1]	–6	–40
Current period provision for expected credit losses and disputes	–14	33
Foreign exchange revaluation	–1	
Balance as of 31 December	**–92**	**–38**

[1] Impact of ASC 326 "Financial Instruments – Credit Losses". Please refer to Note 1 "Organisation and summary of significant accounting policies" for more details.

The Group has established an allowance for credit losses and disputes for premiums and other receivables as well as reinsurance recoverable on unpaid claims and policy benefits. The evaluation of the allowance includes several judgements including a default analysis to estimate uncollectible balances based on balances by cedent, net of collateral and netting, and default factors used to estimate the forward-looking allowance. Default factors are determined using principally the current financial strength rating of each cedent, asset class, seniority and geography. Changes in the allowance for premiums and other receivables are recorded in "Operating expenses" in the income statement. Changes in the allowance for reinsurance recoverable are recorded in "Claims and claim adjustment expenses" and "Life and health benefits" in the income statement.

4 Premiums written

For the years ended 31 December

2022 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
Gross premiums written, thereof:						
Direct			6 994	858		7 852
Reinsurance	22 922	15 986	1 119	10		40 037
Intra-group transactions (assumed)	926		85		–1 011	0
Gross premiums written	23 848	15 986	8 198	868	–1 011	47 889
Intra-group transactions (ceded)	–85		–564	–362	1 011	0
Gross premiums written before retrocession to external parties	23 763	15 986	7 634	506		47 889
Retrocession to external parties	–937	–1 510	–1 510	–15		–3 972
Net premiums written	22 826	14 476	6 124	491	0	43 917

2023 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
Gross premiums written, thereof:						
Direct			6 726	1 104		7 830
Reinsurance	23 595	16 908	1 289	332		42 124
Intra-group transactions (assumed)	772	1	137		–910	0
Gross premiums written	24 367	16 909	8 152	1 436	–910	49 954
Intra-group transactions (ceded)	–137		–541	–232	910	0
Gross premiums written before retrocession to external parties	24 230	16 909	7 611	1 204		49 954
Retrocession to external parties	–1 352	–1 518	–1 968	–21		–4 859
Net premiums written	**22 878**	**15 391**	**5 643**	**1 183**	**0**	**45 095**

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	2022	**2023**
Balance as of 1 January	84 096	85 418
Reinsurance recoverable	−3 975	−4 224
Deferred expense on retroactive reinsurance	−165	−121
Impact of ASC 326[1]		40
Net balance as of 1 January	79 956	**81 113**
Incurred related to:		
Current year	32 255	31 440
Prior year	675	809
Amortisation of deferred expense on retroactive reinsurance and impact of commutations	9	−12
Total incurred	32 939	**32 237**
Paid related to:		
Current year	−8 798	−9 528
Prior year	−20 648	−21 912
Total paid	−29 446	**−31 440**
Foreign exchange	−2 731	971
Effect of acquisitions, disposals, new retroactive reinsurance and other items	355	439
Net balance as of period end	81 073	**83 320**
Reinsurance recoverable	4 224	4 052
Deferred expense on retroactive reinsurance	121	141
Balance as of period end	85 418	**87 513**

[1] Impact of ASC 326 "Financial Instruments – Credit Losses". Please refer to Note 1 "Organisation and summary of significant accounting policies" for more details.

Prior-year development

Non-life claims development on prior years in the year ended 31 December 2023 is due to adverse development in casualty, partly offset by favourable development from property and specialty. The adverse movement in casualty is due to adverse experience and assumption strengthening in liability and motor. Development in property is principally due to releases for large losses and lower-than-expected claims activity in all regions. Specialty was mainly impacted by favourable development in credit and surety, partly offset by engineering and aviation.

For life and health lines of business, development on prior years' unpaid claims in the year ended 31 December 2023 is unfavourable. There is unfavourable development from adverse claims experience in the US, partially offset by favourable claims development in the UK. Claims development related to prior years for disability portfolio 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[1]:

USD millions	2022	**2023**
Line of business:		
Property	–468	–1 789
Casualty	810	2 350
Specialty	–13	–23
Life and health	346	271
Total	675	**809**

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

US asbestos and environmental claims exposure

The Group's obligation for claims payments and claims settlement charges also includes obligations for long-latent injury claims arising out of policies written prior to 1986, in particular in the area of US asbestos and environmental liability.

At the end of 2023, the Group carried net reserves for US asbestos and environmental liabilities equal to USD 1 175 million. During 2023, the Group incurred net gains of USD 16 million and net paid losses of USD 125 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, Continental Europe 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.

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 cedent. For reinsurance business, case reserves and estimated IBNR are reported by cedent 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 Business Unit 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, 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 175). 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. Claims frequency information is not available for the group disability business in Continental Europe as reliable historical claims frequency information is not obtainable.

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										
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**	**thereof IBNR**
2014	2 612	2 450	2 275	2 242	2 238	2 225	2 236	2 223	2 225	2 227	–1
2015		2 735	2 665	2 495	2 465	2 425	2 407	2 415	2 415	2 413	–3
2016			3 754	3 499	3 208	3 199	3 174	3 196	3 206	3 197	–4
2017				5 903	5 787	5 551	5 523	5 500	5 508	5 509	19
2018					4 260	4 605	4 379	4 306	4 291	4 265	14
2019						4 729	4 693	4 527	4 502	4 547	128
2020							7 033	6 735	6 622	6 002	115
2021								5 846	5 761	5 641	602
2022	RSI [1]								6 907	6 163	995
2023										5 486	2 627
Total										**45 450**	**4 492**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**
2014	449	1 625	1 984	2 106	2 147	2 162	2 180	2 184	2 189	2 198
2015		460	1 590	2 087	2 248	2 322	2 344	2 364	2 368	2 385
2016			629	2 131	2 737	2 938	3 020	3 077	3 094	3 117
2017				964	3 584	4 628	4 958	5 111	5 214	5 275
2018					610	3 068	3 594	3 734	3 848	3 984
2019						894	2 940	3 616	3 963	4 137
2020							1 279	3 673	4 704	5 318
2021								1 111	3 166	4 298
2022	RSI [1]								1 250	3 455
2023										1 324
Total										**35 491**
All liabilities before 2014										209
Liabilities for claims and claim adjustment expenses, net of reinsurance										**10 168**

[1] 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[1])	19.6%	45.4%	17.4%	6.5%	2.8%	1.7%	0.8%	0.4%	0.5%	0.4%

[1] 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 - 2023 accident year claims incurred are higher due to natural catastrophes. 2022 and 2023 reporting years include inflation adjustments where appropriate.

Property & Casualty Reinsurance – Liability, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	thereof IBNR
2014	987	978	991	980	969	1 004	1 011	1 027	1 039	1 076	129
2015		1 254	1 302	1 393	1 465	1 538	1 523	1 557	1 572	1 636	178
2016			1 696	1 705	1 703	1 805	1 855	1 894	1 950	2 076	374
2017				1 952	2 060	2 201	2 381	2 441	2 522	2 665	500
2018					1 887	2 064	2 210	2 314	2 490	2 723	743
2019						2 629	2 982	3 055	3 219	3 341	1 049
2020							2 837	2 990	3 005	3 211	1 406
2021								2 620	2 628	2 695	1 647
2022	RSI[1]								2 230	2 438	1 815
2023										2 339	2 072
Total										**24 200**	**9 913**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2014	23	155	288	426	561	656	737	797	838	883
2015		34	207	420	648	898	1 076	1 152	1 248	1 318
2016			46	102	395	660	895	1 076	1 254	1 422
2017				49	249	538	998	1 243	1 514	1 809
2018					52	307	569	846	1 204	1 561
2019						82	394	718	1 183	1 739
2020							112	328	704	1 162
2021								85	288	609
2022	RSI[1]								83	279
2023										88
Total										**10 870**
All liabilities before 2014										1 131
Liabilities for claims and claim adjustment expenses, net of reinsurance										**14 461**

[1] 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[1])	2.6%	8.2%	11.7%	13.6%	13.0%	10.3%	8.0%	6.5%	4.0%	4.2%

[1] 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 2023 are due to adverse experience and assumption strengthening related to the US business. 2022 and 2023 reporting years include inflation adjustments where appropriate.

Property & Casualty Reinsurance – Liability, non-proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**	**thereof IBNR**
2014	*431*	*435*	*403*	*361*	*333*	*352*	*352*	*340*	*336*	329	47
2015		*1 751*	*1 791*	*1 761*	*1 778*	*1 802*	*1 780*	*1 577*	*1 578*	1 646	141
2016			*578*	*560*	*586*	*632*	*685*	*692*	*722*	741	121
2017				*486*	*504*	*585*	*636*	*736*	*777*	822	140
2018					*445*	*449*	*469*	*448*	*501*	567	179
2019						*2 399*	*2 375*	*2 346*	*2 425*	2 680	299
2020							*823*	*805*	*779*	878	561
2021								*588*	*676*	706	466
2022	*RSI* [1]								*577*	667	545
2023										695	654
Total										**9 731**	**3 153**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**
2014	*–2*	*8*	*39*	*70*	*99*	*140*	*165*	*188*	*207*	222
2015		*0*	*89*	*193*	*320*	*468*	*569*	*635*	*709*	868
2016			*13*	*202*	*228*	*280*	*341*	*387*	*453*	500
2017				*–2*	*18*	*47*	*123*	*218*	*330*	478
2018					*–1*	*21*	*71*	*124*	*189*	260
2019						*209*	*493*	*663*	*906*	1 153
2020							*10*	*28*	*68*	143
2021								*4*	*57*	122
2022	*RSI* [1]								*0*	32
2023										3
Total										**3 781**
All liabilities before 2014										3 495
Liabilities for claims and claim adjustment expenses, net of reinsurance										**9 445**

[1] 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[1])	*1.1%*	*7.2%*	*6.5%*	*8.6%*	*9.7%*	*10.2%*	*9.6%*	*5.9%*	*7.7%*	*4.6%*

[1] 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 2014 include reserves for historic US Asbestos and Environmental losses. 2022 and 2023 reporting years include inflation adjustments where appropriate.

Property & Casualty Reinsurance – Accident & Health

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**	**thereof IBNR**
2014	*296*	*329*	*321*	*310*	*299*	*298*	*283*	*281*	*283*	275	28
2015		*426*	*422*	*401*	*391*	*383*	*363*	*359*	*354*	352	31
2016			*583*	*618*	*613*	*578*	*573*	*554*	*548*	544	83
2017				*726*	*761*	*722*	*713*	*693*	*688*	691	135
2018					*717*	*803*	*799*	*772*	*765*	755	105
2019						*794*	*785*	*771*	*747*	734	72
2020							*884*	*877*	*838*	815	88
2021								*798*	*776*	769	142
2022	*RSI* [1]								*935*	982	252
2023										898	538
Total										**6 815**	**1 474**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**
2014	*30*	*99*	*139*	*167*	*184*	*200*	*207*	*212*	*215*	219
2015		*58*	*131*	*182*	*214*	*233*	*246*	*257*	*263*	271
2016			*71*	*171*	*263*	*319*	*348*	*366*	*382*	393
2017				*94*	*228*	*328*	*387*	*421*	*452*	475
2018					*96*	*306*	*446*	*523*	*564*	587
2019						*109*	*323*	*450*	*525*	574
2020							*116*	*363*	*483*	564
2021								*128*	*341*	461
2022	*RSI* [1]								*122*	427
2023										113
Total										**4 084**
All liabilities before 2014										2 122
Liabilities for claims and claim adjustment expenses, net of reinsurance										**4 853**

[1] 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[1])	*13.7%*	*25.5%*	*15.8%*	*9.8%*	*5.7%*	*4.1%*	*3.0%*	*1.8%*	*1.7%*	*1.5%*

[1] 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. The 2014 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. 2022 and 2023 reporting years include inflation adjustments where appropriate.

Property & Casualty Reinsurance – Motor, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**	**thereof IBNR**
2014	*1 923*	*1 888*	*1 888*	*1 872*	*1 862*	*1 860*	*1 858*	*1 859*	*1 860*	1 851	–2
2015		*1 852*	*1 846*	*1 849*	*1 852*	*1 852*	*1 859*	*1 863*	*1 864*	1 858	12
2016			*2 392*	*2 509*	*2 557*	*2 559*	*2 563*	*2 574*	*2 578*	2 573	8
2017				*2 299*	*2 317*	*2 304*	*2 315*	*2 323*	*2 334*	2 334	36
2018					*1 985*	*2 018*	*1 997*	*1 991*	*2 000*	1 997	54
2019						*1 980*	*1 956*	*1 987*	*1 991*	2 008	94
2020							*1 808*	*1 854*	*1 867*	1 891	165
2021								*1 859*	*1 965*	2 034	257
2022	*RSI* [1]								*1 896*	2 073	425
2023										1 942	927
Total										**20 561**	**1 976**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**
2014	*710*	*1 413*	*1 651*	*1 726*	*1 760*	*1 780*	*1 792*	*1 798*	*1 801*	1 805
2015		*767*	*1 386*	*1 619*	*1 717*	*1 760*	*1 784*	*1 800*	*1 808*	1 817
2016			*793*	*1 754*	*2 090*	*2 266*	*2 367*	*2 431*	*2 467*	2 504
2017				*728*	*1 467*	*1 792*	*1 961*	*2 074*	*2 149*	2 200
2018					*600*	*1 292*	*1 530*	*1 670*	*1 771*	1 832
2019						*634*	*1 247*	*1 493*	*1 641*	1 749
2020							*590*	*1 140*	*1 379*	1 544
2021								*628*	*1 233*	1 533
2022	*RSI* [1]								*671*	1 326
2023										698
Total										**17 008**
All liabilities before 2014										291
Liabilities for claims and claim adjustment expenses, net of reinsurance										**3 844**

[1] 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[1])	*33.4%*	*32.9%*	*13.0%*	*6.6%*	*3.9%*	*2.2%*	*1.3%*	*0.7%*	*0.3%*	*0.2%*

[1] Unaudited

The increase in the incurred losses from accident years 2014 to 2016 is driven by new business volume across all regions. Proportional motor business includes both longer-tailed liability business and shorter-tailed hull business. The increases in the incurred losses in accident year 2022 in reporting year 2023 are due to adverse experience and assumption strengthening related to the US business. 2022 and 2023 reporting years include inflation adjustments where appropriate.

Property & Casualty Reinsurance – Motor, non-proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**	**thereof IBNR**
2014	*402*	*435*	*430*	*429*	*422*	*402*	*399*	*394*	*403*	391	41
2015		*382*	*404*	*439*	*435*	*448*	*446*	*444*	*453*	499	107
2016			*462*	*577*	*541*	*536*	*523*	*508*	*523*	521	78
2017				*570*	*600*	*588*	*596*	*589*	*606*	597	102
2018					*483*	*522*	*529*	*519*	*549*	541	107
2019						*1 151*	*1 163*	*1 147*	*1 147*	1 139	133
2020							*510*	*513*	*525*	507	201
2021								*533*	*559*	566	254
2022	*RSI* [1]								*572*	597	301
2023										602	471
Total										**5 960**	**1 795**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**
2014	*4*	*60*	*104*	*143*	*186*	*215*	*234*	*247*	*258*	268
2015		*-1*	*33*	*91*	*156*	*201*	*230*	*261*	*283*	304
2016			*8*	*64*	*124*	*178*	*238*	*268*	*296*	309
2017				*8*	*59*	*125*	*201*	*238*	*289*	327
2018					*4*	*35*	*95*	*142*	*189*	240
2019						*88*	*289*	*468*	*594*	697
2020							*3*	*41*	*82*	138
2021								*9*	*67*	130
2022	*RSI* [1]								*2*	61
2023										10
Total										**2 484**
All liabilities before 2014										2 802
Liabilities for claims and claim adjustment expenses, net of reinsurance										**6 278**

[1] 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[1])	*1.6%*	*10.2%*	*11.4%*	*11.0%*	*9.2%*	*7.4%*	*5.7%*	*3.4%*	*3.5%*	*2.6%*

[1] Unaudited

The increase in incurred losses for accident year 2019 compared to other years is due to an increase in volume of business. 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. 2022 and 2023 reporting years include inflation adjustments where appropriate.

Property & Casualty Reinsurance – Specialty

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**	**thereof IBNR**
2014	*1 065*	*1 052*	*954*	*929*	*915*	*920*	*902*	*893*	*904*	900	15
2015		*1 199*	*1 179*	*1 163*	*1 155*	*1 153*	*1 175*	*1 176*	*1 188*	1 191	29
2016			*1 247*	*1 233*	*1 187*	*1 190*	*1 174*	*1 166*	*1 183*	1 172	28
2017				*1 575*	*1 495*	*1 366*	*1 333*	*1 348*	*1 363*	1 371	51
2018					*1 590*	*1 680*	*1 647*	*1 561*	*1 608*	1 574	60
2019						*1 763*	*1 933*	*2 040*	*2 149*	2 174	107
2020							*1 911*	*1 947*	*1 871*	1 899	309
2021								*1 836*	*1 820*	1 765	509
2022	*RSI* [1]								*2 238*	2 264	1 211
2023										2 106	1 564
Total										**16 416**	**3 883**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**
2014	*163*	*387*	*560*	*655*	*710*	*748*	*771*	*780*	*793*	805
2015		*128*	*373*	*669*	*827*	*924*	*978*	*1 007*	*1 033*	1 046
2016			*137*	*462*	*699*	*863*	*950*	*995*	*1 031*	1 092
2017				*176*	*565*	*839*	*1 000*	*1 070*	*1 128*	1 189
2018					*178*	*623*	*927*	*1 077*	*1 192*	1 287
2019						*271*	*706*	*1 048*	*1 295*	1 590
2020							*305*	*706*	*1 002*	1 239
2021								*204*	*524*	840
2022	*RSI* [1]								*190*	579
2023										177
Total										**9 844**
All liabilities before 2014										577
Liabilities for claims and claim adjustment expenses, net of reinsurance										**7 149**

[1] 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[1])	*12.2%*	*22.9%*	*19.1%*	*11.8%*	*7.9%*	*4.6%*	*3.1%*	*2.8%*	*1.3%*	*1.3%*

[1] Unaudited

This category contains several individual large losses on marine, aviation and space lines. From 2017 to 2022 accident years, claims incurred is higher due to natural catastrophes. 2022 and 2023 reporting years include inflation adjustments where appropriate.

Corporate Solutions

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year											
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**	**thereof IBNR**	**Cumulative number of reported claims (in nominals)**
2014	*1 820*	*1 762*	*1 691*	*1 696*	*1 668*	*1 597*	*1 577*	*1 581*	*1 566*	1 565	92	21 933
2015		*1 874*	*2 044*	*2 109*	*2 080*	*1 896*	*1 859*	*1 892*	*1 865*	1 915	84	19 181
2016			*1 998*	*2 084*	*2 123*	*2 111*	*2 105*	*2 112*	*2 141*	2 134	150	18 504
2017				*2 996*	*3 226*	*2 978*	*2 999*	*2 962*	*2 946*	3 054	160	21 813
2018					*2 675*	*2 594*	*2 626*	*2 598*	*2 625*	2 521	254	28 031
2019						*2 768*	*2 614*	*2 598*	*2 616*	2 654	317	24 996
2020							*3 330*	*2 819*	*2 729*	2 671	489	22 813
2021								*2 605*	*2 493*	2 439	486	36 072
2022	*RSI*[1]								*2 862*	2 972	754	377 170
2023										3 284	1 692	991 674
Total										**25 209**	**4 478**	**1 562 187**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**
2014	*270*	*821*	*1 110*	*1 253*	*1 342*	*1 441*	*1 459*	*1 489*	*1 505*	1 508
2015		*349*	*898*	*1 291*	*1 488*	*1 622*	*1 711*	*1 733*	*1 741*	1 759
2016			*369*	*1 130*	*1 380*	*1 645*	*1 718*	*1 829*	*2 040*	1 942
2017				*381*	*1 502*	*2 107*	*2 361*	*2 538*	*2 620*	2 765
2018					*413*	*1 411*	*1 882*	*2 074*	*2 341*	2 513
2019						*523*	*1 219*	*1 492*	*1 712*	1 896
2020							*572*	*1 253*	*1 605*	1 822
2021								*326*	*1 047*	1 496
2022	*RSI*[1]								*364*	1 305
2023										586
Total										**17 592**
All liabilities before 2014										436
Liabilities for claims and claim adjustment expenses, net of reinsurance										**8 053**

[1] 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[1])	*16.6%*	*32.1%*	*16.4%*	*9.2%*	*6.6%*	*5.1%*	*4.2%*	*-0.8%*	*1.0%*	*0.2%*

[1] Unaudited

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 2023, there were movements under both the Loss Portfolio Transfer and the Adverse Development Cover mainly in casualty and other specialty 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 180). There were immaterial movements under both the Loss Portfolio Transfer and the Adverse Development Cover.

Life & Health Reinsurance, long tail

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year											
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	thereof IBNR	Cumulative number of reported claims (in nominals)
2014	445	406	387	388	410	432	440	436	442	438	7	15 694
2015		380	412	398	399	428	437	430	437	435	6	18 058
2016			400	415	402	429	443	434	438	435	31	15 894
2017				408	413	433	454	433	433	420	25	19 147
2018					379	409	423	418	411	397	54	19 528
2019						352	429	380	372	357	57	17 513
2020							164	132	138	139	23	9 117
2021								180	187	178	60	10 293
2022	RSI [1]								1 407	1 325	510	4 551
2023										439	423	396
Total										**4 563**	**1 196**	**130 191**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2014	30	101	184	242	276	303	327	346	359	370
2015		33	99	176	222	258	290	313	330	346
2016			13	81	148	198	238	267	287	305
2017				11	70	151	218	256	283	305
2018					11	69	151	199	227	250
2019						11	73	139	179	217
2020							4	31	69	90
2021								4	36	78
2022	RSI [1]								4	27
2023										2
Total										**1 990**
All liabilities before 2014										315
Liabilities for claims and claim adjustment expenses, net of reinsurance										**2 888**

[1] 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[1])	3.2%	14.7%	20.2%	12.8%	8.7%	6.5%	5.2%	4.1%	3.3%	2.5%

[1] Unaudited

The decrease in incurred losses from accident year 2019 is due to lower volume from disability business written in Australia. The increase in incurred losses in accident year 2022 is due to the acquisition of in-force group disability business in Europe.

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	2023
Net outstanding liabilities	
Property & Casualty Reinsurance	
Property	10 168
Liability, proportional	14 461
Liability, non-proportional	9 445
Accident & Health	4 853
Motor, proportional	3 844
Motor, non-proportional	6 278
Specialty	7 149
Corporate Solutions	8 053
Life & Health Reinsurance, long tail	2 888
Total net undiscounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	67 139
Discounting impact on (Life & Health Reinsurance) short duration contracts	–248
Impact of acquisition accounting	–302
Total net discounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	66 589
Other short duration contract lines	3 365
Total net discounted outstanding short duration liabilities	**69 954**
Allocated reinsurance recoverables on unpaid claims:	
Property & Casualty Reinsurance	
Property	518
Liability, proportional	191
Liability, non-proportional	189
Accident & Health	245
Motor, proportional	46
Motor, non-proportional	184
Specialty	108
Corporate Solutions	4 856
Consolidation	–3 530
Impact of acquisition accounting	–48
Other short duration contract lines	443
Total short duration reinsurance recoverable on outstanding liabilities	**3 202**
Exclusions:	
Unallocated claim adjustment expenses	1 243
Long duration contracts	13 114
Total other reconciling items	**14 357**
Total unpaid claims and claim adjustment expenses	**87 513**

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	2022	**2023**
Carrying amount of discounted claims	1 562	1 417
Aggregate amount of the discount	–266	–248
Interest accretion[1]	27	34
Range of interest rates	0.5–3.3%	0.5–3.7%

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

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

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

As of 31 December, the DAC were as follows:

2022 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Opening balance as of 1 January	2 538	4 718	480	406	8 142
Deferred	5 327	496	779	215	6 817
Effect of acquisitions/disposals and retrocessions		11	−17	6	0
Amortisation	−5 106	−459	−737	−174	−6 476
Effect of foreign currency translation and other changes	−84	−246	−16	−16	−362
Closing balance	2 675	4 520	489	437	8 121

2023 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Opening balance as of 1 January	2 675	4 520	489	437	8 121
Deferred	5 339	486	680	311	6 816
Effect of acquisitions/disposals and retrocessions		−18			−18
Amortisation	−5 376	−455	−724	−257	−6 812
Effect of foreign currency translation and other changes	−4	32	7	9	44
Closing balance	**2 634**	**4 565**	**452**	**500**	**8 151**

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

As of 31 December, the PVFP for Life & Health Reinsurance was as follows:

USD millions	2022	**2023**
Opening balance as of 1 January	836	794
Effect of acquisitions/disposals and retrocessions		−3
Amortisation	−100	−104
Interest accrued on unamortised PVFP	38	36
Effect of change in unrealised gains/losses	29	−2
Effect of foreign currency translation	−9	3
Closing balance	794	**724**

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 12%, 12%, 11%, 10% and 9%.

7 Investments

Investment income

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

USD millions	2022	2023
Fixed income securities	1 951	2 559
Equity securities	57	36
Policy loans, mortgages and other loans	183	287
Investment real estate	251	245
Short-term investments	106	297
Other current investments	136	181
Share in earnings of equity-accounted investees	–44	68
Cash and cash equivalents	42	151
Net result from deposit-accounted contracts	102	35
Deposits with ceding companies	472	575
Gross investment income	3 256	**4 434**
Investment expenses	–381	–416
Interest charged for funds held	–6	–23
Net investment income – non-participating business	2 869	**3 995**

Dividends received from investments accounted for using the equity method were USD 214 million and USD 89 million for 2022 and 2023, respectively.

Share in earnings of equity-accounted investees included impairments of the carrying amount of equity-accounted investees of USD 18 million and nil for 2022 and 2023, respectively.

Realised gains and losses

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

USD millions	2022	2023
Fixed income securities available-for-sale:		
Gross realised gains	222	39
Gross realised losses	–204	–282
Other-than-temporary impairments[1]	–60	
Net realised investment gains/losses on equity securities	–347	47
Change in net unrealised investment gains/losses on equity securities	–271	–37
Net realised investment gains/losses on trading securities	–208	–23
Change in net unrealised investment gains/losses on trading securities	–67	21
Net realised/unrealised gains/losses on other investments	705	503
Net realised/unrealised gains/losses on insurance-related activities	132	127
Change in allowance for credit losses on[1]:		
Fixed income securities available-for-sale		3
Other investments		–17
Foreign exchange gains/losses	95	338
Net realised investment gains/losses – non-participating business	–3	**719**

[1] Other-than-temporary impairment losses have been superseded by credit loss allowances upon the adoption of ASC 326 "Financial Instruments — Credit Losses". Please refer to Note 1 "Organisation and summary of significant accounting policies" for more details.

Net realised/unrealised gains/losses on insurance-related activities included impairments of USD 10 million and nil for 2022 and 2023, respectively.

Investment result – unit-linked business

For unit-linked contracts, the investment risk is borne by the policyholder.

The net investment result on unit-linked business credited to policyholders amounted to losses of USD 43 million and to gains of USD 21 million for 31 December 2022 and 2023, respectively, originating from equity securities.

Allowance for credit impairments on fixed income securities
The Group periodically assesses whether a decline in fair value below amortised cost necessitates the calculation of an allowance for credit losses considering various quantitative and qualitative factors. Impairment is determined on an individual security basis.

For securities identified as credit-impaired, the calculation of the estimated credit loss amount includes forward-looking credit information incorporating macro-economic factors as well as credit ratings and is determined by discounting the expected cash shortfalls with the effective interest rate and multiplying with PD (probability of default) and LGD (loss given default). The Group includes accrued interest in the amortised cost basis to estimate expected credit losses.

A reconciliation of the allowance for credit losses related to fixed income securities classified as available-for-sale, aggregated by major investment category is presented as follows:

2023 USD millions	Debt securities issued by governments and government agencies	Corporate debt securities	Mortgage-and asset-backed securities	Total
Balance as of 1 January	0	0	0	**0**
Impact of ASC 326[1]	7	30	5	**42**
Securities for which allowance for credit losses were not previously recorded		7	1	**8**
Additions/ reductions in allowance recorded on previously impaired securities	–3	–7	1	**–9**
Securities sold during the period		–2		**–2**
Balance as of 31 December	**4**	**28**	**7**	**39**

[1] Impact of ASC 326 "Financial Instruments – Credit Losses". Please refer to Note 1 "Organisation and summary of significant accounting policies" for more details.

As of 31 December 2022, and prior to the adoption of ASC 326 "Financial Instruments – Credit Losses" standard, other-than-temporary impairments related to credit losses amounted to USD 60 million.

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:

2022 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Other-than-temporary impairments recognised in other comprehensive income[1]	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	15 418	3	–1 229		14 192
US Agency securitised products	3 870	4	–379		3 495
States of the United States and political subdivisions of the states	1 331	5	–109		1 227
United Kingdom	3 451	4	–1 149		2 306
France	2 243	10	–692		1 561
Germany	2 173	18	–437		1 754
Canada	2 443	17	–129		2 331
China	1 453	8	–7		1 454
Other	10 120	11	–1 191		8 940
Total	42 502	80	–5 322		37 260
Corporate debt securities	35 852	137	–3 137	–6	32 846
Mortgage- and asset-backed securities	4 284	12	–309	–4	3 983
Fixed income securities available-for-sale	82 638	229	–8 768	–10	74 089

2023 USD millions	Amortised cost or cost	Allowance for credit losses[2]	Gross unrealised gains	Gross unrealised losses	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	10 996		93	–841	10 248
US Agency securitised products	4 763		20	–343	4 440
States of the United States and political subdivisions of the states	1 307		10	–81	1 236
United Kingdom	3 648		10	–1 194	2 464
France	2 410		30	–614	1 826
Germany	1 921		37	–346	1 612
Canada	1 449		18	–76	1 391
Australia	1 401		5	–37	1 369
Other	9 735	–4	50	–984	8 797
Total	37 630	–4	273	–4 516	33 383
Corporate debt securities	40 044	–28	463	–1 957	38 522
Mortgage- and asset-backed securities	4 471	–7	25	–187	4 302
Fixed income securities available-for-sale	**82 145**	**–39**	**761**	**–6 660**	**76 207**

[1] 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. Other-than-temporary impairment losses have been superseded by credit loss allowances upon the adoption of ASC 326 "Financial Instruments – Credit Losses". Please refer to Note 1 "Organisation and summary of significant accounting policies" for more details.

[2] Represents the allowance for credit losses that has been recognised in the balance sheet. Changes in the allowance for credit losses are reported in "Net realised investment gains/losses – non-participating business".

Unrealised losses on securities available-for-sale

The following table shows the fair value and gross unrealised losses of 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 2022:

2022 USD millions	Less than 12 months Fair value	 Unrealised losses	12 months or more Fair value	 Unrealised losses	Total Fair value	 Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	4 912	280	9 120	949	14 032	1 229
US Agency securitised products	2 266	179	1 068	200	3 334	379
States of the United States and political subdivisions of the states	989	96	48	13	1 037	109
United Kingdom	1 171	462	1 128	687	2 299	1 149
France	678	233	632	459	1 310	692
Germany	1 018	227	416	210	1 434	437
Canada	734	32	1 481	97	2 215	129
China	198	3	45	4	243	7
Other	4 755	520	3 528	671	8 283	1 191
Total	16 721	2 032	17 466	3 290	34 187	5 322
Corporate debt securities	17 138	1 337	12 269	1 806	29 407	3 143
Mortgage- and asset-backed securities	2 868	193	1 002	120	3 870	313
Total	36 727	3 562	30 737	5 216	67 464	8 778

The following table shows the fair value and gross unrealised losses of fixed income securities, for which an allowance for credit losses has not been recognised or has only been recognised for a portion of the losses, aggregated by investment category and length of time that individual securities were in a continuous loss position as of 31 December 2023:

2023 USD millions	Less than 12 months Fair value	 Unrealised losses	12 months or more Fair value	 Unrealised losses	Total Fair value	 Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	794	15	5 644	826	6 438	841
US Agency securitised products	282	4	3 000	339	3 282	343
States of the United States and political subdivisions of the states	171	2	806	79	977	81
United Kingdom	21	8	2 399	1 186	2 420	1 194
France	79	0	1 358	614	1 437	614
Germany	3	0	1 170	346	1 173	346
Canada	55	1	1 030	75	1 085	76
Australia	542	3	589	34	1 131	37
Other	619	4	5 313	984	5 932	988
Total	2 566	37	21 309	4 483	23 875	4 520
Corporate debt securities	1 946	43	23 697	1 933	25 643	1 976
Mortgage- and asset-backed securities	649	8	2 546	181	3 195	189
Total	**5 161**	**88**	**47 552**	**6 597**	**52 713**	**6 685**

For fixed income securities classified as available-for-sale with significant declines in fair value, the Group performs a qualitative and quantitative credit analysis to determine whether the decline in value necessitates the recognition of an allowance for credit losses. The Group considers multiple factors when performing the analysis including the issuer's ability to meet contractual payments, the issuer's credit profile, the evolution of the security's credit rating and relevant characteristics of the security. If the Group determines that unrealised losses are due to non-credit factors, these losses are recognised in other comprehensive income and no allowance for credit losses is recognised in earnings.

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 2022 and 2023, USD 25 231 million and USD 31 023 million, respectively, of fixed income securities available-for-sale were callable.

USD millions	2022 Amortised cost or cost	2022 Estimated fair value	2023 Amortised cost or cost, net of allowance	2023 Estimated fair value
Due in one year or less	13 324	13 079	7 390	7 316
Due after one year through five years	28 616	26 979	29 408	28 534
Due after five years through ten years	13 691	12 195	15 054	14 438
Due after ten years	23 725	18 769	26 698	22 507
Mortgage- and asset-backed securities with no fixed maturity	3 282	3 067	3 556	3 412
Total fixed income securities available-for-sale	82 638	74 089	**82 106**	**76 207**

Investments trading and at fair value through earnings

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

USD millions	2022	**2023**
Debt securities issued by governments and government agencies	462	382
Mortgage- and asset-backed securities	22	623
Fixed income securities trading – non-participating business	484	**1 005**
Equity securities at fair value through earnings – non-participating business	2 114	**156**

Investments held for unit-linked business

As of 31 December 2022 and 2023, the carrying amounts of investments held for unit-linked business consist of equity securities at fair value through earnings of USD 330 million and USD 325 million, respectively.

Mortgage, policy and other loans, and investment real estate

As of 31 December 2022 and 2023, the carrying and respective fair values of investments in mortgage, policy and other loans, and investment real estate (excluding unit-linked business) were as follows:

USD millions	2022 Carrying value	2022 Fair value	2023 Carrying value	2023 Fair value
Mortgage loans	1 712	1 569	1 848	1 724
Other loans	2 599	2 443	3 188	3 122
Allowance for credit losses			–36	
Mortgage and other loans, net	**4311**	**4012**	**5 000**	**4 846**
Policy loans	32	32	34	34
Investment real estate	2 931	5 738	2 905	5 519

Substantially all mortgage, policy and other loan receivables are secured by buildings, infrastructure related assets, company assets, 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. There were no significant mortgage and other loans positions for which payments of contractual principal or interest were past due as of 31 December 2023.

Investment real estate held by the Group includes residential and commercial investment real estate. Depreciation expense related to investment real estate was USD 79 million and USD 72 million for 2022 and 2023, respectively. Accumulated depreciation on investment real estate totalled USD 829 million and USD 903 million as of 31 December 2022 and 2023, respectively.

Allowance for credit impairments on mortgage and other loans

Allowance for credit losses on mortgage and other loans are estimated on an expected loss basis using a model that utilises probability of default and loss given default methods over the contractual lifetime of the instrument. Within the reasonable and supportable forecast period, the allowance for credit losses for mortgage and other loans is established based on a pool considering the risk associated within the designated pool. If similar risk characteristics do not exist or when individual instruments no longer have similar credit risk characteristics, they are removed from the pool and the allowance is measured on an individual asset basis. The Group includes accrued interest in the amortised cost basis to estimate expected credit losses.

The evaluation also considers available relevant information about the collectability of cash flows, including information about past events, current conditions, and reasonable and supportable forecasts of future economic conditions. The Group forecasts future economic conditions using probability-weighted forecasts. The Group reverts to historical information when it is determined that future economic assumptions can no longer be reliably forecasted.

A reconciliation of the allowance for credit losses related to mortgage and other loans is presented as follows:

USD millions	2023
Balance as of 1 January	0
Impact of ASC 326[1]	19
Addition to/ release of allowance for credit losses	17
Balance as of 31 December	**36**

[1] Impact of ASC 326 "Financial Instruments – Credit Losses". Please refer to Note 1 "Organisation and summary of significant accounting policies" for more details.

Credit quality of mortgage and other loans

The following table shows credit ratings for mortgage and other loans as of 31 December 2023:

2023 USD millions	Mortgage and other loans
AAA	40
AA	733
A	1 011
BBB	1 963
Non-investment grade (including unrated)	832
Total amortised cost, gross of allowance[1]	**4 579**

[1] Excludes USD 457 million related to unit-linked business for which the credit risk is borne by the policyholders.

The credit ratings in the table above mainly reflect ratings assigned by external managers. The Group monitors the credit ratings periodically.

Maturity of lessor cash flows

As of 31 December 2023, 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:

2023 USD millions	Operating leases
Less than one year	220
Between one year and two years	191
Between two years and three years	159
Between three years and four years	133
Between four years and five years	116
After five years	436
Total cash flows	**1 255**

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 2022 and 2023 was USD 21 million and USD 17 million, respectively.

Other financial assets and liabilities by measurement category

As of 31 December 2022 and 2023, "Other invested assets" and "Accrued expenses and other liabilities" by measurement category were as follows:

2022 USD millions	Fair value	Investments measured at net asset value as practical expedient	Amortised cost or cost	Equity-accounted	Not in scope[1]	Total
Other invested assets						
Derivative financial instruments	309					309
Reverse repurchase agreements			2 005			2 005
Securities lending/borrowing	1 191					1 191
Equity-accounted investments	435			1 866		2 301
Other	372	1 740	876			2 988
Other invested assets	2 307	1 740	2 881	1 866	0	8 794
Accrued expenses and other liabilities						
Derivative financial instruments	546					546
Repurchase agreements			17			17
Securities lending	1 194		49			1 243
Securities sold short	381					381
Other			1 564		2 115	3 679
Accrued expenses and other liabilities	2 121	0	1 630	0	2 115	5 866

2023 USD millions	Fair value	Investments measured at net asset value as practical expedient	Amortised cost or cost	Equity-accounted	Not in scope[1]	Total
Other invested assets						
Derivative financial instruments	307					307
Reverse repurchase agreements			2 678			2 678
Securities lending/borrowing	2 236		311			2 547
Equity-accounted investments	415			1 772		2 187
Other	813	2 079	899			3 791
Other invested assets	**3 771**	**2 079**	**3 888**	**1 772**	**0**	**11 510**
Accrued expenses and other liabilities						
Derivative financial instruments	601					601
Repurchase agreements			154			154
Securities lending	2 245		15			2 260
Securities sold short	235					235
Other			1 501		2 324	3 825
Accrued expenses and other liabilities	**3 081**	**0**	**1 670**	**0**	**2 324**	**7 075**

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

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

2022 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	1 153	–844	309	–4	305
Reverse repurchase agreements	3 657	–1 652	2 005	–2 005	0
Securities borrowing					0
Total	4 810	–2 496	2 314	–2 009	305

2022 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	–1 663	1 117	–546	319	–227
Repurchase agreements	–1 272	1 255	–17	17	0
Securities lending	–1 640	397	–1 243	1 144	–99
Total	–4 575	2 769	–1 806	1 480	–326

2023 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	1 290	–983	307	–24	**283**
Reverse repurchase agreements	3 948	–1 270	2 678	–2 678	**0**
Securities borrowing	311		311	–311	**0**
Total	**5 549**	**–2 253**	**3 296**	**–3 013**	**283**

2023 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	–1 479	878	–601	130	**–471**
Repurchase agreements	–1 024	870	–154	154	**0**
Securities lending	–2 660	400	–2 260	2 142	**–118**
Total	**–5 163**	**2 148**	**–3 015**	**2 426**	**–589**

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

Assets pledged
As of 31 December 2022 and 2023, investments with a carrying value of USD 4 492 million and USD 4 430 million, respectively, were on deposit with regulatory agencies in accordance with local requirements, of which USD 469 million and USD 449 million, respectively, were cash and cash equivalents. As of 31 December 2022 and 2023, investments with a carrying value of USD 14 361 million and USD 13 899 million, respectively, were placed on deposit or pledged to secure certain reinsurance liabilities, including pledged investments in subsidiaries, of which USD 50 million and USD 220 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 2022 and 2023, investments with a carrying value of USD 482 million and USD 330 million, respectively, were placed on deposit or pledged to secure certain derivative and debt liabilities.

As of 31 December 2022 and 2023, securities of USD 14 396 million and USD 16 645 million, respectively, were transferred to third parties under securities lending transactions and repurchase agreements on a fully collateralised basis. Corresponding liabilities of USD 1 260 million and USD 2 414 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 2022 and 2023, a real estate portfolio with a carrying value of USD 187 million and USD 207 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 2022 and 2023, the fair value of the equity securities, government and corporate debt securities received as collateral was USD 4 527 million and USD 5 629 million, respectively. Of this, the amount that was sold or repledged as of 31 December 2022 and 2023 was USD 1 281 million and USD 1 085 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 2022 and 2023, 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:

2022 USD millions	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	Total
	Remaining contractual maturity of the agreements				
Repurchase agreements					
Debt securities issued by governments and government agencies	9	1 091		99	1 199
Corporate debt securities		73			73
Total repurchase agreements	9	1 164	0	99	1 272
Securities lending					
Debt securities issued by governments and government agencies	454		1 044		1 498
Corporate debt securities	142				142
Total securities lending	596	0	1 044	0	1 640
Gross amount of recognised liabilities for repurchase agreements and securities lending					2 912

2023 USD millions	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	Total
	Remaining contractual maturity of the agreements				
Repurchase agreements					
Debt securities issued by governments and government agencies	138	197	504	97	936
Corporate debt securities	11	77			88
Total repurchase agreements	**149**	**274**	**504**	**97**	**1 024**
Securities lending					
Debt securities issued by governments and government agencies	146	1 439	901		2 486
Corporate debt securities	174				174
Total securities lending	**320**	**1 439**	**901**	**0**	**2 660**
Gross amount of recognised liabilities for repurchase agreements and securities lending					**3 684**

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

8 Fair value disclosures

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

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

Level 1 inputs are unadjusted, quoted prices in active markets for identical assets or liabilities that the Group has the ability to access. Level 1 inputs are the most persuasive evidence of fair value and are to be used whenever possible. The types of instruments include most US government and sovereign obligations, active listed equities, certain exchange-traded derivative instruments and most money market securities.

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

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

Pursuant to the election of the fair value option, the Group classifies certain liabilities for life and health policy benefits in level 3 of the fair value hierarchy. When appropriate, valuations are adjusted for various factors such as liquidity, bid/offer spreads and credit considerations. Such adjustments are generally based on available market evidence. In the absence of such evidence, management's best estimate is used.

The fair values of assets are adjusted to incorporate the counterparty risk of non-performance. Similarly, the fair values of liabilities reflect the risk of non-performance of the Group, captured by the Group's credit spread. These valuation adjustments from assets and liabilities measured at fair value using significant unobservable inputs are recognised in net realised gains and losses. For 2023, 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 corporate structure of the issuer.

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:

2022 USD millions	Quoted prices in active markets for identical assets and liabilities (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Impact of netting[1]	Total
Assets					
Fixed income securities held for proprietary investment purposes	14 137	59 231	1 205		74 573
Debt securities issued by US government and government agencies	14 137	1 392			15 529
US Agency securitised products		3 515			3 515
Debt securities issued by non-US governments and government agencies		18 678			18 678
Corporate debt securities		31 641	1 205		32 846
Mortgage- and asset-backed securities		4 005			4 005
Equity securities held for proprietary investment purposes	1 599	515			2 114
Equity securities backing unit-linked business	330				330
Short-term investments held for proprietary investment purposes	2 535	6 372			8 907
Derivative financial instruments	27	1 066	60	–844	309
Interest rate contracts	5	471	5		481
Foreign exchange contracts		486			486
Equity contracts	22	68			90
Credit contracts		8			8
Other contracts		33	55		88
Other invested assets	462	1 054	481		1 997
Funds held by ceding companies		164			164
Total assets at fair value	19 090	68 402	1 746	–844	88 394
Liabilities					
Derivative financial instruments	–5	–1 478	–180	1 117	–546
Interest rate contracts	–4	–909	–2		–915
Foreign exchange contracts		–386			–386
Equity contracts	–1	–133			–134
Credit contracts		–50			–50
Other contracts			–178		–178
Liabilities for life and health policy benefits			–69		–69
Accrued expenses and other liabilities	–218	–1 356			–1 574
Total liabilities at fair value	–223	–2 834	–249	1 117	–2 189

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

2023 USD millions	Quoted prices in active markets for identical assets and liabilities (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Impact of netting[1]	Total
Assets					
Fixed income securities held for proprietary investment purposes	10 076	65 491	1 645		77 212
Debt securities issued by US government and government agencies	10 079	1 441			11 520
US Agency securitised products	2	4 438			4 440
Debt securities issued by non-US governments and government agencies	1	17 804			17 805
Corporate debt securities	–6	36 883	1 645		38 522
Mortgage- and asset-backed securities		4 925			4 925
Equity securities held for proprietary investment purposes	144	12			156
Equity securities backing unit-linked business	325				325
Short-term investments held for proprietary investment purposes	2 727	7 204			9 931
Derivative financial instruments	5	1 231	54	–983	307
Interest rate contracts		235	24		259
Foreign exchange contracts		855			855
Equity contracts	1	24			25
Credit contracts		1			1
Other contracts	4	116	30		150
Other invested assets	1 525	1 099	844		3 468
Funds held by ceding companies		166			166
Total assets at fair value	**14 802**	**75 203**	**2 543**	**–983**	**91 565**
Liabilities					
Derivative financial instruments	–3	–1 304	–172	878	–601
Interest rate contracts		–405			–405
Foreign exchange contracts		–788			–788
Equity contracts	–1	–111	–1		–113
Credit contracts			–3		–3
Other contracts	–2		–168		–170
Liabilities for life and health policy benefits			–58		–58
Accrued expenses and other liabilities	–1 211	–1 269			–2 480
Total liabilities at fair value	**–1 214**	**–2 573**	**–230**	**878**	**–3 139**

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

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

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

2022 USD millions	Fixed income securities	Derivative assets	Other invested assets	Total assets	Derivative liabilities	Liabilities for life and health policy benefits	Total liabilities
Assets and liabilities							
Balance as of 1 January	1 312	86	507	1 905	–272	–83	–355
Realised/unrealised gains/losses:							
Included in net income[1]	–1	7	–20	–14	240	14	254
Included in other comprehensive income[2]	–272			–272			0
Purchases	279	21	13	313	–128		–128
Issuances				0	–82		–82
Sales	–40	–4	–16	–60	4		4
Settlements	–58	–50		–108	58		58
Transfers into level 3				0			0
Transfers out of level 3				0			0
Impact of foreign exchange movements	–15		–3	–18			0
Closing balance as of 31 December	1 205	60	481	1 746	–180	–69	–249

[1] Fair value changes are reported in "Net realised investment gains/losses – non-participating business".
[2] Fair value changes from fixed income securities are reported in "Net unrealised investment gains/losses".

2023 USD millions	Fixed income securities	Derivative assets	Other invested assets	**Total assets**	Derivative liabilities	Liabilities for life and health policy benefits	**Total liabilities**
Assets and liabilities							
Balance as of 1 January	1 205	60	481	**1 746**	–180	–69	**–249**
Realised/unrealised gains/losses:							
Included in net income[1]	–8	22	360	**374**	104	11	**115**
Included in other comprehensive income[2]	51			**51**			**0**
Purchases	227	14	4	**245**			**0**
Issuances				**0**	–148		**–148**
Sales		–4		**–4**			**0**
Settlements	–100	–38	–2	**–140**	53		**53**
Transfers into level 3[3]	264			**264**			**0**
Transfers out of level 3				**0**			**0**
Impact of foreign exchange movements	6		1	**7**	–1		**–1**
Closing balance as of 31 December	**1 645**	**54**	**844**	**2 543**	**–172**	**–58**	**–230**

[1] Fair value changes are reported in "Net realised investment gains/losses – non-participating business".
[2] Fair value changes from fixed income securities are reported in "Net unrealised investment gains/losses".
[3] Due to reclassification of certain securities to fixed income securities.

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	2022	**2023**
Gains/losses included in net income for the period	240	489
Whereof change in unrealised gains/losses relating to assets and liabilities still held at the reporting date	108	83

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	2022 Fair value	2023 Fair value	Valuation technique	Unobservable input	Range (weighted average[1])
Assets					
Corporate debt securities	1 205	**1 645**			
Infrastructure loans	802	1 192	Discounted cash flow model	Valuation spread	56—514 bps (197 bps)
Private placement corporate debt	367	382	Corporate spread matrix	Credit spread	39—219 bps (109 bps)
Private placement credit tenant leases	29	24	Discounted cash flow model	Illiquidity premium	125—150 bps (146 bps)
Other derivative contracts	55	**30**			
Weather contracts	41	4	Proprietary option model	Risk margin	7–7% (7%)
				Volatility (temperature)	0.2–0.3 (0.2) HDD/CDD/CAT[2]
				Index value (temperature)	0–1 (0.4) HDD/CDD/CAT[2]
Liabilities					
Other derivative contracts and liabilities for life and health policy benefits	–247	**–226**			
Variable annuity and fair valued GMDB contracts	–187	–130	Discounted cash flow model	Risk margin	4% (n/a)
				Volatility	10.2–54.8%
				Lapse	1–10%
				Mortality improvement	0–1.5%
				Withdrawal rate (GMDB contracts)	20–97%
Weather contracts	–41	–47	Proprietary option model	Risk margin	7–21% (13.7%)
				Correlation	–50–37% (–5.8%)
				Volatility (power/gas)	70–99% (90.5%)
				Volatility (temperature)	0–133 (22.5) HDD/CDD/CAT[2]
				Index value (temperature)	0–889 (198.4) HDD/CDD/CAT[2]

[1] Unobservable inputs were weighted by the relative fair value of the instruments.
[2] Heating Degree Days (HDD); Cooling Degree Days (CDD); 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 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	2022 Fair value	**2023** Fair value	Unfunded commitments	Redemption frequency (if currently eligible)	Redemption notice period
Private equity funds	1 489	1 776	636	non-redeemable	n/a
Real estate funds	1		8	non-redeemable	n/a
Private equity direct	249	302	86	non-redeemable	n/a
Hedge funds	1	1		redeemable[1]	90 days[2]
Total	1 740	**2 079**	**730**		

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

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 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.

The hedge fund investments employ a variety of strategies, including relative value and event-driven across various asset classes.

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 in other comprehensive income and all other changes in fair value are reported as a component of earnings.

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

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

USD millions	2022	**2023**
Assets		
Other invested assets	8 794	11 510
of which at fair value pursuant to the fair value option	435	415
Funds held by ceding companies	13 929	16 178
of which at fair value pursuant to the fair value option	164	166
Liabilities		
Liabilities for life and health policy benefits	–20 925	–20 624
of which at fair value pursuant to the fair value option	–69	–58

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	2022	2023
Other invested assets	54	–28
Funds held by ceding companies	–8	2
Liabilities for life and health policy benefits	15	12
Total	61	**–14**

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

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

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

2022 USD millions	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Total
Assets			
Policy loans		32	32
Mortgage loans		1 569	1 569
Other loans		2 443	2 443
Investment real estate		5 738	5 738
Total assets	0	9 782	9 782
Liabilities			
Debt	–9 027	–2 063	–11 090
Total liabilities	–9 027	–2 063	–11 090

2023 USD millions	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Total
Assets			
Policy loans		34	34
Mortgage loans		1 724	1 724
Other loans		3 122	3 122
Investment real estate		5 519	5 519
Total assets	**0**	**10 399**	**10 399**
Liabilities			
Debt	–8 212	–2 177	–10 389
Total liabilities	**–8 212**	**–2 177**	**–10 389**

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:

2022 USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
Derivatives not designated as hedging instruments				
Interest rate contracts	15 937	481	–563	–82
Foreign exchange contracts	37 834	395	–219	176
Equity contracts	12 285	90	–134	–44
Credit contracts	10 974	8	–50	–42
Other contracts	9 969	88	–178	–90
Total	86 999	1 062	–1 144	–82
Derivatives designated as hedging instruments				
Interest rate contracts	2 992		–352	–352
Foreign exchange contracts	21 381	91	–167	–76
Total	24 373	91	–519	–428
Total derivative financial instruments	111 372	1 153	–1 663	–510
Amount offset				
Where a right of set-off exists		–669	669	
Due to cash collateral		–175	448	
Total net amount of derivative financial instruments		309	–546	–237

2023 USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
Derivatives not designated as hedging instruments				
Interest rate contracts	16 198	246	–142	104
Foreign exchange contracts	42 786	852	–235	617
Equity contracts	4 181	25	–113	–88
Credit contracts	6 213	1	–3	–2
Other contracts	9 648	150	–170	–20
Total	**79 026**	**1 274**	**–663**	**611**
Derivatives designated as hedging instruments				
Interest rate contracts	2 712	13	–263	–250
Foreign exchange contracts	21 728	3	–553	–550
Total	**24 440**	**16**	**–816**	**–800**
Total derivative financial instruments	**103 466**	**1 290**	**–1 479**	**–189**
Amount offset				
Where a right of set-off exists		–781	781	
Due to cash collateral		–202	97	
Total net amount of derivative financial instruments		**307**	**–601**	**–294**

The notional amounts of derivative financial instruments give an indication of the Group's volume of derivative activity. The fair value assets are included in "Other invested assets", and the fair value liabilities are included in "Accrued expenses and other liabilities". The fair value amounts that were not offset were nil as of 31 December 2022 and 2023.

Non-hedging activities
The Group primarily uses derivative financial instruments for risk management and trading strategies. Gains and losses of derivative financial instruments not designated as hedging instruments are recorded in "Net realised investment gains/losses — non-participating business" in the income statement.

For the years ended 31 December, the gains and losses of derivative financial instruments not designated as hedging instruments were as follows:

USD millions	2022	**2023**
Derivatives not designated as hedging instruments		
Interest rate contracts	–20	33
Foreign exchange contracts	–1 047	477
Equity contracts	71	–229
Credit contracts	15	–72
Other contracts	220	234
Total gains/losses recognised in income	–761	**443**

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 2022 and 2023, 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:

		2022		**2023**
USD millions	Net realised investment gains/losses — non-participating business	Interest expenses	Net realised investment gains/losses — non-participating business	Interest expenses
Total amounts of income and expense line items	–3	–570	719	–556
Foreign exchange contracts				
Gains/losses on derivatives	1 137		–374	
Gains/losses on hedged items	–1 137		374	
Amounts excluded from the effectiveness assessment				
Interest rate contracts				
Gains/losses on derivatives		–306		102
Gains/losses on hedged items		292		–119

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:

		2022		**2023**
USD millions	Carrying value	Cumulative basis adjustment	Carrying value	Cumulative basis adjustment
Assets				
Fixed income securities available-for-sale	15 970		15 964	
Liabilities				
Short-term debt	–783	16	–290	7
Long-term debt	–1 852	331	–1 774	220

Cash flow hedges

In 2023, the Group entered into forward bond purchase contracts, to reduce the exposure to the interest rate risk of a future purchase of seasoned bonds forecasted to take place in 2024. These derivative instruments are designated as cash flow hedging instruments.

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

USD millions	2023 Other comprehensive income — Cash flow hedges
Total amounts of income and expense line items	10
Interest rate contracts	
Gains/losses on derivatives	10

As of 31 December 2023, the maximum length of time over which the Group hedged its exposure to the variability in future cash flows for forecasted transactions, excluding those forecasted transactions related to the payment of variable interest on existing financial instruments, was 6 months.

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 2022 and 2023, the Group recorded an accumulated net unrealised foreign currency remeasurement gain of USD 1 260 million and USD 837 million, respectively, in "Other comprehensive income – Foreign currency translation". These offset translation gains and losses on the hedged net investment.

As of 31 December 2023, USD 152 million gains on derivative instruments, designated and qualifying in net investment hedges, were excluded from the assessment of hedge effectiveness.

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 2022 and 2023 was approximately USD 484 million and USD 509 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 54 million and USD 37 million as of 31 December 2022 and 2023, respectively. For derivative financial instruments containing credit risk-related contingent features, the Group posted collateral of USD 34 million and USD 29 million as of 31 December 2022 and 2023, respectively. In the event of a reduction of the Group's credit rating to below investment grade, a fair value of USD 9 million additional collateral would have had to be posted as of 31 December 2023. The total equals the amount needed to settle the instruments immediately as of 31 December 2023.

Credit derivatives written/sold

During 2023, the Group wrote/sold credit swaptions, options on CDS in investment grade indices. CDSs are contracts in which the buyer of the swap pays a fee in return for a contingent payment by the seller of the swap triggered by a credit event of the underlying entity or asset. Credit swaptions are contracts that provide the holder with the right, but not the obligation, to enter into a credit default swap in the future at a specified date and spread.

These activities are part of the Group's overall portfolio and risk management strategies. The events that could require the Group to perform include the movement of credit spreads beyond defined trigger levels resulting in the exercise of the swaption by the counterparty and thereafter the occurrence of a credit event (which may include, bankruptcy, failure to pay or involuntary restructuring) of the credit derivative's underlying. Payout on a credit default swap is only triggered after the credit derivatives determinations committee determines that a credit event has occurred.

As of 31 December 2023, the total fair value (representing gross carrying amounts, excluding the effects of cash collateral netting) of written/sold options on credit derivatives was nil with a maximum potential payout of USD 4 000 million and a time to maturity of less than five years. The maximum potential payout is based on notional values of the credit derivatives assuming the swaption is exercised and the default of all credit derivatives' underlyings with zero recovery.

The Group believes that the maximum potential payout is not representative of the actual loss exposure based on historical experience. This amount has not been reduced by the Group's rights to the underlying assets and the related cash flows. In accordance with most credit derivative contracts, should a credit event (or settlement trigger) occur, the Group is liable for the difference between the credit protection sold and the recovery value of the underlying assets.

The Group has purchased protection to manage the performance/payment risks related to credit derivatives. As of 31 December 2023, the total purchased credit protection was USD 2 000 million based on notional values. Thereof USD 2 000 million was related to identical underlyings for which the Group sold credit protection.

10 Disposals

Disposal of Elips Life AG
On 1 July 2022, the Group completed the sale of Elips Life AG ("elipsLife"), formerly part of Corporate Solutions business segment, to Swiss Life International, 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 2021.

The Group simultaneously entered into a long-term reinsurance partnership for elipsLife's inforce and new business which is part of the Reinsurance L&H and Group items business segment from 1 July 2022.

The sale of elipsLife excludes the medical business of Elips Versicherungen AG in Ireland, which remains in the Corporate Solutions business segment.

11 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) except for perpetual positions with issuer redemption options every five years, in which case the positions are treated as having no maturity until a redemption notice is issued. Interest expense is classified accordingly.

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

USD millions	2022	**2023**
Senior financial debt	784	291
Senior operational debt	2	2
Subordinated financial debt		499
Contingent capital instruments classified as financial debt		499
Short-term debt	786	**1 291**
Senior financial debt	1 336	1 095
Senior operational debt	100	101
Subordinated financial debt	6 730	5 686
Subordinated operational debt	1 588	1 644
Contingent capital instruments classified as financial debt	498	
Long-term debt	10 252	**8 526**
Total carrying value	11 038	**9 817**
Total fair value	11 090	**10 389**

As of 31 December 2022 and 2023, operational debt, ie debt related to operational leverage, amounted to USD 1.7 billion (thereof USD 1.6 billion limited- or non-recourse) and USD 1.7 billion (thereof USD 1.6 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	2022	**2023**
Due in 2024	2 254	
Due in 2025	1 673	1 744
Due in 2026	333	324
Due in 2027	1 015	1 052
Due in 2028		
Due after 2028	4 977	5 406
Total carrying value	10 252	**8 526**

Senior long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Book value in USD millions
2026	Senior notes[1]	1996	USD	291	7.00%	311
2027	Senior notes	2015	CHF	250	0.75%	277
2030	Senior notes[1]	2000	USD	156	7.75%	191
2042	Senior notes	2012	USD	322	4.25%	316
Various	Payment undertaking agreements	Various	USD	94	Various	101
Total senior long-term debt as of 31 December 2023						**1 196**
Total senior long-term debt as of 31 December 2022						1 436

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

Subordinated long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Next call in	Book value in USD millions
2035	Subordinated fixed rate resettable callable note	2020	SGD	350	3.13%	2025	265
2049	Subordinated fixed rate reset step-up callable note	2019	USD	766	5.00%	2029	762
2050	Subordinated fixed rate reset step-up callable note	2019	EUR	539	2.53%	2030	593
2050	Subordinated fixed-to-floating rate non step-up callable loan note	2022	USD	700	5.75%	2025	699
2052	Subordinated fixed rate reset step-up callable note	2020	EUR	800	2.71%	2032	719
2052	Subordinated fixed-to-floating rate non step-up callable loan note	2022	USD	800	5.63%	2027	775
2056	Subordinated fixed rate non step-up callable loan note	2022	USD	23	6.05%	2031	21
2057	Subordinated private placement (amortising, limited recourse)	2007	GBP	1289	6.41%		1 644
Perpetual	Perpetual subordinated fixed-to-floating rate callable loan note	2015	EUR	750	2.60%	2025	777
Perpetual	Perpetual subordinated fixed spread callable note[1]	2019	USD	631	4.25%	2024	630
Perpetual	Perpetual subordinated fixed spread callable loan note[1]	2023	USD	454	5.52%	2027	445
Total subordinated long-term debt as of 31 December 2023							**7 330**
Total subordinated long-term debt as of 31 December 2022							8 318

[1] Perpetual position with issuer redemption options every five years.

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	2022	**2023**
Senior financial debt	48[1]	49
Senior operational debt	3	4
Subordinated financial debt	340	287[2]
Subordinated operational debt	105	104
Contingent capital instruments classified as financial debt	18	8
Total	514	**452**

[1] Includes a gain on debt extinguishment of USD 22 million.
[2] Includes a gain on debt extinguishment of USD 65 million.

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 94.1610 (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, 5 310 054 existing 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 2023

In May 2023, Swiss Re Ltd issued perpetual subordinated fixed spread callable loan notes with an aggregate face value of USD 750 million by fully drawing on the subordinated debt facility established in July 2017. The notes are perpetual with a next optional redemption date of 15 August 2027 and additional optional redemption dates every five years thereafter. Swiss Re Ltd pays a fixed coupon of 5.524% per annum until the next optional redemption date, which will be reset every five years to the prevailing five-year US Treasury rate plus the fixed-for-life spread of 2.764%.

12 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	2022	**2023**
Operating lease right-of-use assets	396	406
Operating lease liabilities	441	455

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	2022	**2023**
Less than one year	71	73
Between one year and two years	65	70
Between two years and three years	55	68
Between three years and four years	52	60
Between four years and five years	46	50
After five years	227	210
Total undiscounted cash flows	516	**531**
Less imputed interest	–75	–76
Total lease liability	441	**455**

As of 31 December 2023, undiscounted sublease cash flows over the next eight years were USD 53 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 2022 and 2023 was 2.8% and 3.1%, respectively. The weighted average remaining lease term for operating leases as of 31 December 2022 and 2023 was 10.7 years and 10.1 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	2022	**2023**
Fixed operating lease cost	80	70
Other lease cost[1]	5	6
Total operating lease cost	85	**76**
Less sublease income from operating leases	–4	–8
Total lease cost	81	**68**

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

Other information
For the year ended 31 December 2022 and 2023, cash paid for amounts included in the measurement of operating lease liabilities was USD 82 million and USD 72 million, respectively. Right-of-use assets obtained in exchange for new operating lease liabilities in 2022 and 2023 were USD 72 million and USD 70 million, respectively.

13 Earnings per share

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

USD millions (except share data)	2022	2023
Basic earnings per share		
Net income	480	3 228
Non-controlling interests	–8	–14
Net income attributable to common shareholders	472	**3 214**
Weighted average common shares outstanding	289 001 080	289 916 296
Net income per share in USD	1.63	**11.09**
Net income per share in CHF[1]	1.63	**9.94**
Effect of dilutive securities		
Change in income available to common shares due to convertible debt	14	14
Change in average number of shares due to convertible debt	13 763 879	16 494 769
Change in average number of shares due to employee options	323 651	1 450 546
Diluted earnings per share		
Net income assuming debt conversion and exercise of options	486	**3 228**
Weighted average common shares outstanding	303 088 610	307 861 611
Net income per share in USD	1.60	**10.49**
Net income per share in CHF[1]	1.60	**9.40**

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

Dividends were declared in Swiss francs until 31 December 2022. From 1 January 2023, dividends are declared in US dollars in line with the Group's reporting currency and are paid in Swiss francs. During the years ended 31 December 2022 and 2023, the parent company of the Group (Swiss Re Ltd) paid dividends per share of CHF 5.90 and CHF 5.69 (USD 6.40), respectively.

14 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	2022	**2023**
Current taxes	372	323
Deferred taxes	–201	887
Income tax expense	171	**1 210**

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	2022	**2023**
Income tax at the Swiss statutory tax rate of 19.7%	128	872
Increase (decrease) in the income tax charge resulting from:		
Foreign income taxed at different rates	24	77
Impact of foreign exchange movements	–33	184
Tax exempt income/dividends received deduction	6	–3
Change in valuation allowance	21	49
Non-deductible expenses	36	84
Change in statutory rate	–1	7
Other income based taxes	–1	–14
Change in liability for unrecognised tax benefits including interest and penalties	21	17
Basis differences in subsidiaries	13	–5
Intra-entity transfers	–2	1
Other, net[1]	–41	–59
Total	171	**1 210**

[1] "Other, net" includes tax return to tax provision and other prior year adjustments from various jurisdictions in 2022 and 2023 of USD –73 million and USD –49 million, respectively.

For the year ended 31 December 2023, the Group reported a tax expense of USD 1 210 million on a pre-tax income of USD 4 438 million, compared to an expense of USD 171 million on a pre-tax income of USD 651 million for 2022. This translates into an effective tax rate in the current and prior-year reporting periods of 27.3% and 26.3%, respectively.

For the year ended 31 December 2023, the tax rate was driven by profits earned in higher tax jurisdictions, tax charges from non-deductible expenses, increases in valuation allowance on deferred tax assets and tax charges from foreign currency translation differences between statutory and US GAAP accounts, partially offset by tax benefits from prior-year adjustments. The tax rate in the year ended 31 December 2022 was largely driven by profits earned in higher tax jurisdictions, tax charges from non-deductible expenses, increases on valuation allowance on deferred tax assets and increases in unrecognised tax benefit liabilities, partially offset by tax benefits from foreign currency translation differences and prior year adjustments.

Deferred and other non-current taxes

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

USD millions	2022	2023
Deferred tax assets		
Benefit on loss carryforwards	3 091	2 875
Technical provisions	1 281	1 104
Unearned premium reserves	378	354
Deferred acquisition costs	134	137
Present value of future profits	133	125
Investment valuations in income	475	374
Unrealised gains on investments	1 825	1 303
Income accrued/deferred	198	298
Fixed assets	149	150
Pension provisions	182	197
Currency translation adjustments	463	459
Other	342	454
Gross deferred tax asset	8 651	7 830
Valuation allowance	–361	–419
Unrecognised tax benefits offsetting benefits on loss carryforwards	–6	–12
Total deferred tax assets	8 284	**7 399**
Deferred tax liabilities		
Technical provisions	–1 366	–1 723
Unearned premium reserves	–143	–188
Deferred acquisition costs	–1 155	–1 112
Present value of future profits	–140	–139
Investment valuations in income	–987	–914
Unrealised gains in income	–340	–295
Income accrued/deferred	–164	–169
Pension provisions	–191	–225
Foreign exchange provisions	–679	–830
Currency translation adjustments	–260	–251
Other	–403	–368
Total deferred tax liabilities	–5 828	**–6 214**
Liability for unrecognised tax benefits including interest and penalties	–183	–201
Total deferred and other non-current tax liabilities	–6 011	**–6 415**

The Group has not recognised deferred tax liabilities or additional foreign withholding tax liabilities for undistributed earnings of its foreign subsidiaries that arose in 2023 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 2023, the US GAAP undistributed earnings of these subsidiaries was USD 7.9 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.

As of 31 December 2023, the Group had USD 13 051 million net operating tax loss carryforwards, expiring as follows: USD 12 million in 2024, USD 43 million in 2025, USD 70 million in 2026, USD 512 million in 2027, USD 7 056 million in 2028 and beyond and USD 5 358 million never expire.

As of 31 December 2023, the Group had capital loss carryforwards of USD 721 million, expiring as follows: USD 12 million in 2025, USD 6 million in 2027, USD 140 million in 2028 and beyond, and USD 563 million never expire.

For the year ended 31 December 2023, net operating tax losses of USD 3 530 million and net capital tax losses of nil were utilised.

The valuation allowance for deferred tax assets as of 31 December 2022 and 2023 was USD 361 million and USD 419 million, respectively. The net change in the valuation allowance for the year ended 31 December 2023 was an increase of USD 58 million, with a USD 9 million increase driven by balance sheet translation recorded in equity and a USD 49 million net increase included as a tax charge in income tax from operations.

The valuation allowance as of 31 December 2023 was primarily related to loss carryforwards and intangible assets that, in the judgement 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 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 2023. 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 2023 will be allocated entirely to income tax from operations.

Income taxes paid in 2022 and 2023 were USD 419 million and USD 524 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	2022	**2023**
Balance as of 1 January	143	152
Additions based on tax positions related to current year	14	13
Additions based on tax positions related to prior years	14	12
Reductions for tax positions of current year	–2	–2
Reductions for tax positions of prior years	–5	–4
Statute expiration		–3
Settlements	–7	
Other (including foreign currency translation)	–5	8
Balance as of 31 December	152	**176**

As of 31 December 2022 and 2023, the amount of gross unrecognised tax benefits within the tabular reconciliation that, if recognised, would affect the effective tax rate were approximately USD 152 million and USD 176 million, respectively.

Interest and penalties related to unrecognised tax benefits are recorded in income tax expense/benefit. For the years ended 31 December 2022 and 2023, such expenses were USD 4 million and nil respectively. For the years ended 31 December 2022 and 2023, USD 37 million and USD 37 million, respectively, were accrued for the payment of interest (net of tax benefits) and penalties. The accrued interest balance as of 31 December 2023 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 2023 presented in the table above excludes accrued interest and penalties (USD 37 million).

During the year, certain tax positions and audits in Canada, India, Italy, Singapore and Switzerland were effectively settled.

The Group continually evaluates proposed adjustments by taxing authorities. The Group believes that it is reasonably possible (more than remote and less than likely) that the balance of unrecognised tax benefits could decrease by USD 121 million over the next 12 months due to settlements or expiration of statutes. It is also reasonably possible that the 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	2018–2023	Korea	2017–2023
Brazil	2014; 2017–2023	Luxembourg	2018–2023
Canada	2017–2023	Malaysia	2020–2023
China	2013–2023	Mexico	2018–2023
Colombia	2018–2023	Netherlands	2017–2023
Denmark	2019–2023	New Zealand	2018–2023
France	2020–2023	Nigeria	2017–2023
Germany	2017–2023	Singapore	2019–2023
Hong Kong	2016–2023	Slovakia	2017–2023
India	2004; 2010–2023	South Africa	2019–2023
Ireland	2018–2023	Spain	2018–2023
Israel	2018–2023	Switzerland	2017–2023
Italy	2017–2023	United Kingdom	2020–2023
Japan	2019–2023	United States	2017–2023

15 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.

2022 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	4 598	2 072	325	6 995
Service cost	122	6	3	131
Interest cost	9	41	5	55
Amendments	4			4
Actuarial gains/losses	–706	–528	–65	–1 299
Benefits paid	–172	–73	–16	–261
Employee contribution	38			38
Effect of settlement, curtailment and termination	1	–77		–76
Effect of foreign currency translation	–93	–115	–5	–213
Benefit obligation as of 31 December	3 801	1 326	247	5 374
Fair value of plan assets as of 1 January	4 872	2 181	0	7 053
Actual return on plan assets	–461	–570		–1 031
Company contribution	112	14	16	142
Benefits paid	–172	–73	–16	–261
Employee contribution	38			38
Effect of settlement, curtailment and termination	1	–77		–76
Effect of foreign currency translation	–90	–131		–221
Fair value of plan assets as of 31 December	4 300	1 344	0	5 644
Funded status	499	18	–247	270

2023 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	3 801	1 326	247	5 374
Service cost	114	4	2	120
Interest cost	79	61	8	148
Amendments				0
Actuarial gains/losses	121	51	13	185
Benefits paid	–62	–75	–17	–154
Employee contribution	40			40
Effect of settlement, curtailment and termination	–204			–204
Effect of foreign currency translation	383	41	13	437
Benefit obligation as of 31 December	**4 272**	**1 408**	**266**	**5 946**
Fair value of plan assets as of 1 January	4 300	1 344	0	5 644
Actual return on plan assets	341	69		410
Company contribution	118	11	17	146
Benefits paid	–62	–75	–17	–154
Employee contribution	40			40
Effect of settlement, curtailment and termination	–204			–204
Effect of foreign currency translation	443	45		488
Fair value of plan assets as of 31 December	**4 976**	**1 394**	**0**	**6 370**
Funded status	**704**	**–14**	**–266**	**424**

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

2022 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Non-current assets	499	164		663
Current liabilities		–3	–18	–21
Non-current liabilities		–143	–229	–372
Net amount recognised	499	18	–247	270

2023 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Non-current assets	704	151		855
Current liabilities		–3	–18	–21
Non-current liabilities		–162	–248	–410
Net amount recognised	**704**	**–14**	**–266**	**424**

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

2022 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	366	316	–64	618
Prior service cost/credit	–38	2	–5	–41
Total	328	318	–69	577

2023 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	308	384	–45	647
Prior service cost/credit	–33	2	–3	–34
Total	**275**	**386**	**–48**	**613**

Components of net periodic benefit cost

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

2022 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Service cost (net of participant contributions)	122	6	3	131
Interest cost	9	41	5	55
Expected return on assets	–109	–54		–163
Amortisation of:				
Net gain/loss	26	9	1	36
Prior service cost	–13		–15	–28
Effect of settlement, curtailment and termination		17		17
Net periodic benefit cost	35	19	–6	48

2023 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Service cost (net of participant contributions)	114	4	2	120
Interest cost	79	61	8	148
Expected return on assets	–175	–76		–251
Amortisation of:				
Net gain/loss		2	–6	–4
Prior service cost	–5		–2	–7
Effect of settlement, curtailment and termination	19			19
Net periodic benefit cost	**32**	**–9**	**2**	**25**

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

2022 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	–136	96	–65	–105
Prior service cost/credit	4			4
Amortisation of:				
Net gain/loss	–26	–9	–1	–36
Prior service cost	13		15	28
Effect of settlement, curtailment and termination		–17		–17
Exchange rate gain/loss recognised during the year		–17		–17
Total recognised in other comprehensive income, gross of tax	–145	53	–51	–143
Total recognised in net periodic benefit cost and other comprehensive income, gross of tax	–110	72	–57	–95

2023 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Net gain/loss	–45	58	13	26
Prior service cost/credit				0
Amortisation of:				
Net gain/loss		–2	6	4
Prior service cost	5		2	7
Effect of settlement, curtailment and termination	–13			–13
Exchange rate gain/loss recognised during the year		12		12
Total recognised in other comprehensive income, gross of tax	**–53**	**68**	**21**	**36**
Total recognised in net periodic benefit cost and other comprehensive income, gross of tax	**–21**	**59**	**23**	**61**

The accumulated benefit obligation (the current value of accrued benefits excluding future salary increases) for pension benefits was USD 5 108 million and USD 5 657 million as of 31 December 2022 and 2023, 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	2022	**2023**
Projected benefit obligation	805	843
Fair value of plan assets	659	678

USD millions	2022	**2023**
Accumulated benefit obligation	798	837
Fair value of plan assets	656	677

Principal actuarial assumptions

	Swiss plan		Foreign plans weighted average		Other benefits weighted average	
	2022	**2023**	2022	**2023**	2022	**2023**
Assumptions used to determine obligations at the end of the year						
Discount rate	2.1%	1.4%	4.7%	4.4%	3.5%	2.9%
Rate of compensation increase	2.0%	2.0%	3.1%	3.2%	3.0%	3.0%
Interest crediting rate	2.8%	2.4%				
Assumptions used to determine net periodic pension costs for the year ended						
Discount rate	0.2%	2.1%	2.1%	4.7%	1.5%	3.5%
Expected long-term return on plan assets	2.5%	3.8%	2.6%	4.5%		
Rate of compensation increase	1.8%	2.0%	2.9%	3.1%	2.1%	3.0%
Interest crediting rate	1.5%	2.8%				
Assumed medical trend rates at year end						
Medical trend – initial rate					4.8%	5.4%
Medical trend – ultimate rate					3.7%	3.7%
Year that the rate reaches the ultimate trend rate					2025	2028

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 2022 and 2023 was as follows:

	Swiss plan allocation			Foreign plans allocation		
	2022	**2023**	**Target allocation**	2022	**2023**	**Target allocation**
Asset category						
Equity securities	25%	25%	24%	5%	5%	5%
Fixed income securities	36%	37%	39%	64%	67%	87%
Real estate	22%	22%	26%	1%	1%	0%
Other	17%	16%	11%	30%	27%	8%
Total	100%	**100%**	**100%**	100%	**100%**	**100%**

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

Equity securities include Swiss Re shares of USD 2 million (0.04% of total plan assets) and USD 3 million (0.05% of total plan assets) as of 31 December 2022 and 2023, 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:

	Fair value				
2022 USD millions	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Investments measured at net asset value as practical expedient	Total
Assets					
Fixed income securities:					
Government debt securities	119	833			952
Corporate debt securities		1 478	6		1 484
RMBS/CMBS/ABS		6			6
Equity securities	1 076	73			1 149
Real estate	11	9	919		939
Other assets		71		965	1 036
Cash and cash equivalents	78				78
Total plan assets	1 284	2 470	925	965	5 644

	Fair value				
2023 USD millions	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Investments measured at net asset value as practical expedient	Total
Assets					
Fixed income securities:					
Government debt securities	133	1 062			1 195
Corporate debt securities		1 543	7		1 550
RMBS/CMBS/ABS		10			10
Equity securities	1 267	74			1 341
Real estate	4	39	1 075		1 118
Other assets		110		984	1 094
Cash and cash equivalents	62				62
Total plan assets	**1 466**	**2 838**	**1 082**	**984**	**6 370**

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:

2022 USD millions	Real estate	Other assets	Total
Balance as of 1 January	882	9	891
Realised/unrealised gains/losses:			
Relating to assets still held at the reporting date	6	–2	4
Relating to assets sold during the period			0
Purchases, issuances and settlements	6		6
Transfers in and/or out of level 3			0
Impact of foreign exchange movements	25	–1	24
Closing balance as of 31 December	919	6	925

2023 USD millions	Real estate	Other assets	Total
Balance as of 1 January	919	6	925
Realised/unrealised gains/losses:			
Relating to assets still held at the reporting date	58		58
Relating to assets sold during the period			0
Purchases, issuances and settlements	2		2
Transfers in and/or out of level 3			0
Impact of foreign exchange movements	96	1	97
Closing balance as of 31 December	**1 075**	**7**	**1 082**

Expected contributions and estimated future benefit payments
The employer contributions expected to be made in 2024 to the defined benefit pension plans are USD 144 million and to the post-retirement benefit plans are USD 19 million.

As of 31 December 2023, 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
2024	314	80	19	413
2025	304	84	19	407
2026	295	85	19	399
2027	281	86	19	386
2028	271	87	18	376
Years 2029–2033	1 225	438	88	1 751

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 2022 and 2023 was USD 88 million and USD 89 million, respectively.

16 Share-based payments

As of 31 December 2022 and 2023, 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 59 million and USD 101 million in 2022 and 2023, respectively. The related tax benefit was USD 12 million and USD 20 million, respectively.

Restricted shares
The Group granted 37 704 and 177 255 restricted share units to selected employees in 2022 and 2023, respectively. All restricted share units granted as of 2023 are entitled to a dividend equivalent (equal value to actual Swiss Re dividends), settled in shares at the end of the vesting period.

As part of the Deferred Share Plan (DSP), the Group granted 163 541 restricted share units in 2023. Each DSP grant is entitled to a dividend equivalent (equal value to actual Swiss Re dividends), accrued annually and settled in shares at the end of the vesting period. The DSP is a mandatory three-year deferral of a portion of the Annual Performance Incentive (API) when the total API amount for an employee equals or exceeds defined thresholds.

In addition, 41 855 and 34 162 restricted shares were delivered to members of the Board of Directors during 2022 and 2023, 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 2023 is as follows:

	Weighted average grant date fair value in CHF[1]	Number of shares
Non-vested at 1 January	83	259 467
Granted	92	374 958
Forfeited	86	–15 014
Vested	89	–77 776
Outstanding as of 31 December	**88**	**541 635**

[1] 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 2020, LSP 2021, LSP 2022 and LSP 2023 awards, an additional two-year holding period applies for all members of the Group EC and other key executives. At grant date, LPP 2020 was split equally into three 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%. The ENW PSUs, being the third component, are measured against ENW growth performance and will vest within a range of 0–100%. As of 2021, the 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), 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. As of LSP 2023, the ENW performance-based component has been discontinued. Each SU is entitled to a dividend equivalent (equal value to actual Swiss Re dividends), accrued 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 for all LPP and LSP awards, 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 for LPP 2020 and LSP 2021. Risk-free rates range between 1.5% and 2.2%.

For the year ended 31 December 2023, the outstanding units were as follows:

ROE PSU	LPP 2020	LSP 2021	LSP 2022	LSP 2023
Non-vested at 1 January	195 330	114 528	124 355	
Granted			45	222 898
Forfeited	–6 198	–6 075	–7 251	–950
Vested	–189 132			
Outstanding as of 31 December	**0**	**108 453**	**117 149**	**221 948**
Grant date fair value in CHF	**78.81**	**74.20**	**69.44**	**75.64**

TSR PSU				
Non-vested at 1 January	319 865	206 684	309 721	
Granted			112	190 587
Forfeited	–10 151	–10 963	–18 064	–812
Vested	–309 714			
Outstanding as of 31 December	**0**	**195 721**	**291 769**	**189 775**
Grant date fair value in CHF	**48.12**	**53.67**	**67.57**	**66.45**

ENW PSU				
Non-vested at 1 January	180 860	111 207	137 809	
Granted			50	
Forfeited	–5 737	–5 899	–8 035	
Vested	–175 123			
Outstanding as of 31 December		**105 308**	**129 824**	
Grant date fair value in CHF	**85.17**	**74.20**	**69.44**	

SU				
Non-vested at 1 January		315 812	396 434	
Granted		17 705	24 008	428 600
Forfeited		–12 446	–16 628	–11 402
Vested				
Outstanding as of 31 December		**321 071**	**403 814**	**417 198**
Grant date fair value in CHF		**93.50**	**87.90**	**93.84**

Unrecognised compensation cost
As of 31 December 2023, the total unrecognised compensation cost (net of forfeitures) related to non-vested, share-based compensation awards was USD 125 million and the weighted average period over which that cost is expected to be recognised is 1.9 years.

The number of shares authorised for the Group's share-based payments to employees was 4 173 139 and 4 167 912 as of 31 December 2022 and 2023, 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 2022 and 2023, Swiss Re contributed USD 15 million and USD 13 million to the plans and authorised 228 499 and 184 002 shares as of 31 December 2022 and 2023, respectively.

17 Compensation, participations and loans of members of governing bodies

The disclosure requirements under Swiss law in respect of compensation, participations, and loans of 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 117–125 of the Financial Report of the Swiss Re Group.

18 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 15 "Benefit plans".
Plan assets of the defined benefit pension plans include Swiss Re common stock of USD 2 million (0.04% of total plan assets) and USD 3 million (0.05% of total plan assets) as of 31 December 2022 and 2023, 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 Joachim Oechslin served on an interim basis as a member of the Executive Boards of Credit Suisse Group AG and Credit Suisse AG in 2021 and since 1 January 2022 serves as a Senior Advisor to Credit Suisse 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. The Board member Pia Tischhauser is Managing Director and Senior Partner at Boston Consulting Group. Since November 2022, she has no longer been working on any Swiss Re mandate. Boston Consulting Group occasionally performs advisory/consulting services to Swiss Re.

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

USD millions	2022	**2023**
Share in earnings of equity-accounted investees	–44	68
Dividends received from equity-accounted investees	214	89

19 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 2023 were USD 1 575 million.

The Group has entered into various real estate construction contracts. The commitments under the contracts amount to USD 144 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.

20 Significant subsidiaries and equity investees

		Share capital (millions)	Affiliation in % as of 31.12.2023	Method of consolidation
Europe				
Germany				
Swiss Re Germany GmbH, Munich	EUR	45	100%	f
Liechtenstein				
Elips Versicherungen AG, Vaduz	EUR	4	100%	f
Luxembourg				
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[1]	EUR	16 493	100%	f
Swiss Re International SE, Luxembourg	EUR	187	100%	f
Ares ECSF XI (S) Holdings S.À R.L., Luxembourg	EUR	336	100%	f
iptiQ EMEA P&C S.A., Luxembourg	EUR	6	100%	f
Swiss Re Capital Markets Europe S.A., Luxembourg	EUR	1	100%	f
Netherlands				
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
Switzerland				
Swiss Pillar Investments AG (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 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
United Kingdom				
Swiss Re Finance (UK) Plc, London	GBP	1	100%	f
Swiss Re Services Limited, London	GBP	2	100%	f

[1] Net asset value instead of share capital.

		Share capital (millions)	Affiliation in % as of 31.12.2023	Method of consolidation
Americas and Caribbean				
Brazil				
Swiss Re Brasil Resseguros S.A., São Paulo	BRL	472	100%	f
Swiss Re Corporate Solutions Brasil Seguros S.A., Sao Paulo	BRL	390	60%	f
Cayman Islands				
SRE HL PE 1 LP, George Town	EUR	448	99.8%	f
SREH HL PE 1 LP, George Town	EUR	643	99.8%	f
SRZ HL PE 1 LP, George Town	USD	496	99.8%	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	350	100%	f
Canada				
Definity Financial Corporation, Waterloo	CAD	2 282	9.9%	e
Colombia				
Compañía Aseguradora de Fianzas S.A. Confianza, Bogota	COP	234 202	51%	f
United States				
Swiss Re Corporate Solutions Capacity 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
Swiss Re Corporate Solutions Elite Insurance Corporation, Kansas City	USD	4	100%	f
Swiss Re Corporate Solutions America Insurance Corporation, Kansas City	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	445	99.8%	f
SREH HL PE 1 (Master) LP, Wilmington	EUR	640	99.8%	f
SRZ HL PE 1 (Master) LP, Wilmington	USD	493	99.8%	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 Treasury (US) Corporation, Wilmington	USD	0.00001	100%	f
Swiss Reinsurance America Corporation, Armonk	USD	10	100%	f
Swiss Re Corporate Solutions Premier Insurance Corporation, Jefferson 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
Bermuda				
1997 Fund Ltd, Hamilton	USD	1 450	95,3%	f
Mexico				
Swiss Re Corporate Solutions México Seguros, S.A. de C.V., Mexico City	MXN	400	100%	f

		Share capital (millions)	Affiliation in % as of 31.12.2023	Method of consolidation
Africa				
South Africa				
Swiss Re Africa Limited, Cape Town	ZAR	172	100%	f
Asia-Pacific				
Australia				
Swiss Re Australia Ltd, Sydney	AUD	845	100%	f
Swiss Re Life & Health Australia Limited, Sydney	AUD	980	100%	f
China				
Swiss Re Corporate Solutions Insurance China Ltd, Shanghai	CNY	770	100%	f
Singapore				
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
India				
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

21 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.

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

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

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

Investment vehicles for unit-linked business
Additionally, the Group invests on behalf of the policyholders as a passive investor in a variety of investment funds across various jurisdictions. By design, many of these funds meet a VIE definition. While the Group may have a potentially significant variable interest in some of these entities due to its share of the fund's total net assets, it 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 did not provide financial or other support to any VIEs during 2023 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	2022	2023
Fixed income securities available-for-sale	2 006	2 032
Policy loans, mortgages and other loans		113
Short-term investments	130	132
Cash and cash equivalents	84	87
Accrued investment income	26	29
Premiums and other receivables	64	64
Funds held by ceding companies	11	14
Deferred acquisition costs	8	11
Deferred tax assets	249	215
Other assets	20	9
Total assets	2 598	**2 706**
Unpaid claims and claim adjustment expenses	139	138
Unearned premiums	25	30
Funds held under reinsurance treaties	14	14
Reinsurance balances payable	21	33
Deferred and other non-current tax liabilities	248	208
Accrued expenses and other liabilities	6	2
Long-term debt	1 587	1 644
Total liabilities	2 040	**2 069**

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	2022	2023
Fixed income securities available-for-sale	1 671	2 618
Equity securities at fair value through earnings	64	59
Policy loans, mortgages and other loans	1 726	2 117
Other invested assets	3 082	3 355
Investments for unit-linked business	104	111
Total assets	6 647	**8 260**
Accrued expenses and other liabilities	35	30
Total liabilities	35	**30**

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:

			2022			**2023**
USD millions	Total assets	Total liabilities	Maximum exposure to loss[1]	Total assets	Total liabilities	Maximum exposure to loss[1]
Insurance-linked securitisations	893		987	1 546		1 568
Life and health funding vehicles	15		2 212	10		2 226
Swaps in trusts	82	35	–[2]	55	30	–[2]
Investment vehicles	3 049		3 049	3 287		3 287
Investment vehicles for unit-linked business	104			111		
Senior commercial mortgage and infrastructure loans	2 504		2 504	3 251		3 251
Total	6 647	35	–[2]	**8 260**	**30**	**–[2]**

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

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

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 at 31 December 2023, 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 related notes to the consolidated financial statements, including a summary of accounting policies.

In our opinion, the accompanying consolidated financial statements (pages 140 to 239) present fairly, in all material respects, the financial position of the Group as of 31 December 2023, and the results of its operations and its cash flows for the years 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 Standards on Auditing (SA-CH). 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 opinion.

Key Audit Matters

VALUATION OF FIXED INCOME SECURITIES

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 were communicated with those charged with governance and, 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.

KPMG AG
Zurich, 12 March 2024

KPMG

VALUATION OF FIXED INCOME SECURITIES

Key Audit Matter

The Group has recorded $77,212 million of fixed income securities as of 31 December 2023. This balance is comprised of debt securities issued by governments and government agencies, corporations, and mortgage- and asset-backed securities. This amount is included in the fixed income securities line item on the consolidated balance sheet.

The determination of the fair value of these investments is based on assumptions, including credit and valuation spreads. The determination of assumptions requires subjectivity and judgment as the assumptions are based on internal estimates. The valuation of fixed income securities has been designated as a key audit matter given changes in the estimate could have a material impact on consolidated balance sheet. Auditing this balance involved an increased extent of audit effort, including the involvement of specialized skills and knowledge, due to the estimate uncertainty associated with the assumptions.

Our response

As part of our audit, we gained an understanding of the process related to the valuation of fixed income securities.

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.

For further information on the Valuation of Fixed Income Securities refer to the following:

— Note 1

— Note 7

— Note 8

VALUATION OF LIFE AND HEALTH RESERVES

Key Audit Matter

The Group has recorded life and health reserves of $43,471 million as of 31 December 2023. 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 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

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 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 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.

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.

For further information on the Valuation of Life and Health Reserves refer to the following:

— Note 1

— Note 5

VALUATION OF PROPERTY AND CASUALTY RESERVES

Key Audit Matter

The Group has recorded property and casualty reserves of $69,440 million as of 31 December 2023. 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.

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.

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:

- 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.

For further information on the Valuation of Property and Casualty Reserves refer to the following:

— Note 1

— Note 5

VALUATION OF DEFERRED TAX ASSETS ON LOSS CARRYFORWARDS

Key Audit Matter

The Group has recorded deferred tax assets of $7,399 million (net of a valuation allowance of $419 million) as of 31 December 2023.

The recoverability of deferred tax assets, resulting from net operating losses, and temporary differences, is based on assumptions, including future profitability and tax planning measures. 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 an 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 involve 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

Board of Directors' Responsibilities for the Consolidated Financial Statements

The Board of Directors is responsible for the preparation and the 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 as the Board of Directors determines is necessary to enable 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 the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

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

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS, Swiss law and SA-CH will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and 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 or economic decisions made by a reasonable user based on these consolidated financial statements.

In performing an audit in accordance with GAAS, Swiss law and SA-CH, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

— Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, 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.

— 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. Accordingly, no such opinion is expressed.

— Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

— 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 Group'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 consolidated 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 Group to cease to continue as a going concern.

— Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

— 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. 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 and significant audit findings, and certain internal control related matters, including any significant deficiencies that we identify during our audit.

We also provide the Board of Directors 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, we determine those matters that were of most significance in the audit of the consolidated 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, but does not include the consolidated financial statements, the stand-alone financial statements of the company, the compensation report and our auditor's reports thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether a material inconsistency exists between the other information and the consolidated financial statements, or our knowledge obtained in the audit or the other information otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe in our report. We have nothing to report in this regard.

Report on Other Legal and Regulatory Requirements

In accordance with Art. 728a para. 1 item 3 CO and PS-CH 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

Eric James Elman

Zurich, 12 March 2024

KPMG AG, Badenerstrasse 172, CH-8036 Zurich

Group financial years 2014–2023

USD millions	2014	2015	2016
Income statement			
Revenues			
Premiums earned	30 756	29 751	32 691
Fee income	506	463	540
Net investment income	4 992	4 236	4 740
Net realised investment gains/losses	1 059	1 220	5 787
Other revenues	34	44	28
Total revenues	37 347	35 714	43 786
Expenses			
Claims and claim adjustment expenses	–10 577	–9 848	–12 564
Life and health benefits	–10 611	–9 080	–10 859
Return credited to policyholders	–1 541	–1 166	–5 099
Acquisition costs	–6 515	–6 419	–6 928
Other operating costs and expenses	–3 876	–3 882	–3 964
Total expenses	–33 120	–30 395	–39 414
Income/loss before income tax expense/benefit	4 227	5 319	4 372
Income tax expense/benefit	–658	–651	–749
Net income/loss before attribution of non-controlling interests	3 569	4 668	3 623
Income/loss attributable to non-controlling interests		–3	3
Net income/loss after attribution of non-controlling interests	3 569	4 665	3 626
Interest on contingent capital instruments, net of tax	–69	–68	–68
Net income/loss attributable to common shareholders	3 500	4 597	3 558
Balance sheet			
Assets			
Investments	143 987	137 810	155 016
Other assets	60 474	58 325	60 049
Assets held for sale			
Total assets	204 461	196 135	215 065
Liabilities			
Unpaid claims and claim adjustment expenses	57 954	55 518	57 355
Liabilities for life and health policy benefits	33 605	30 131	41 176
Unearned premiums	10 576	10 869	11 629
Other liabilities	53 670	55 033	59 402
Long-term debt	12 615	10 978	9 787
Liabilities held for sale			
Total liabilities	168 420	162 529	179 349
Shareholders' equity	35 930	33 517	35 634
Non-controlling interests	111	89	82
Total equity	36 041	33 606	35 716
Earnings per share in USD	10.23	13.44	10.72
Earnings per share in CHF	9.33	12.93	10.55

2017	2018	2019	2020	2021	2022[1]	2023
33 119	33 875	37 974	40 321	42 467	42 868	**44 756**
586	586	620	449	259	250	**247**
4 702	5 077	5 175	3 503	3 395	2 890	**4 018**
4 048	–2 530	5 515	–972	578	–67	**717**
32	39	30	37	40	57	**62**
42 487	37 047	49 314	43 338	46 739	45 998	**49 800**
–16 730	–14 855	–18 683	–19 838	–17 181	–19 607	**–18 646**
–11 083	–11 769	–13 087	–13 929	–14 992	–13 721	**–13 695**
–3 298	1 033	–4 633	1 760	–431	–280	**–364**
–6 977	–6 919	–7 834	–8 236	–8 228	–7 800	**–8 364**
–3 874	–3 987	–4 168	–4 185	–4 076	–3 939	**–4 293**
–41 962	–36 497	–48 405	–44 428	–44 908	–45 347	**–45 362**
525	550	909	–1 090	1 831	651	**4 438**
–132	–69	–140	266	–394	–171	**–1 210**
393	481	769	–824	1 437	480	**3 228**
5	–19	–42	–54		–8	**–14**
398	462	727	–878	1 437	472	**3 214**
–67	–41					
331	421	727	–878	1 437	472	**3 214**
161 897	147 302	103 746	120 693	116 586	101 992	**107 073**
60 629	60 268	60 382	61 929	64 981	68 684	**72 503**
		74 439				
222 526	207 570	238 567	182 622	181 567	170 676	**179 576**
66 795	67 446	72 373	81 258	84 096	85 418	**87 513**
42 561	39 593	19 836	22 456	22 196	20 925	**20 624**
11 769	11 721	13 365	13 309	14 134	14 747	**15 488**
56 959	51 581	23 232	26 757	27 140	26 525	**31 054**
10 148	8 502	10 138	11 584	10 323	10 252	**8 526**
		68 586				
188 232	178 843	207 530	155 364	157 889	157 867	**163 205**
34 124	27 930	29 251	27 135	23 568	12 699	**16 146**
170	797	1 786	123	110	110	**225**
34 294	28 727	31 037	27 258	23 678	12 809	**16 371**
1.03	1.37	2.46	–3.04	4.97	1.63	**11.09**
1.02	1.34	2.46	–2.97	4.52	1.63	**9.94**

[1] The Group has revised the presentation of the medical business of Elips Versicherungen AG and starting 2023 reports it under claims and claim adjustment expenses instead of life and health benefits. Comparative information for 2022 was adjusted accordingly.

Annual Report Swiss Re Ltd

Swiss Re Ltd (the Company), domiciled in Zurich, Switzerland, is the ultimate holding company of the Swiss Re Group (the Group). Its principal activity is the holding of investments in Swiss Re Group companies.

Income statement
Net income for 2023 amounted to CHF 1 193 million (2022: CHF 1 295 million).

Revenues were mainly driven by cash dividends from subsidiaries and affiliated companies of CHF 1 202 million, trademark licence fees of CHF 454 million, interest on loans to subsidiaries and affiliated companies of CHF 206 million, valuation adjustments on derivative financial instruments of CHF 80 million and realised gains on investments of CHF 65 million.

Expenses were mainly driven by administrative expenses of CHF 387 million, interest on loans of CHF 193 million, remeasurement of foreign currencies of CHF 119 million, valuation adjustment to the carrying amount of investments in subsidiaries and affiliated companies of CHF 88 million and realised loss on investments of CHF 62 million.

Assets
Total assets decreased from CHF 24 543 million as of 31 December 2022 to CHF 24 033 million as of 31 December 2023.

Current assets increased by CHF 51 million to CHF 4 132 million as of 31 December 2023, mainly driven by an increase in receivables from subsidiaries and affiliated companies partially offset by a decrease in loans to subsidiaries and affiliated companies.

Non-current assets decreased by CHF 561 million to CHF 19 901 million as of 31 December 2023, mainly driven by a decrease in loans to subsidiaries and affiliated companies.

Liabilities
Total liabilities decreased from CHF 3 557 million as of 31 December 2022 to CHF 3 390 million as of 31 December 2023.

Short-term liabilities increased by CHF 543 million to CHF 1 726 million as of 31 December 2023, mainly driven by the reclassification of a convertible debt with maturity in 2024.

Long-term liabilities decreased by CHF 710 million to CHF 1 664 million as of 31 December 2023, mainly due to the repurchase of subordinated debts and reclassification of a convertible debt partially offset by a drawdown of an uncommitted subordinated funding facility.

Shareholders' equity
Shareholders' equity decreased from CHF 20 986 million as of 31 December 2022 to CHF 20 643 million as of 31 December 2023, mainly due to dividends to shareholders of CHF 1 644 million partially offset by net income of CHF 1 193 million.

Note on risk factors
Macroeconomic events or developments including increased volatility in global markets, inflation, the ongoing military conflicts in Ukraine as well as in the Middle East, or losses associated with insured claim events, particularly natural catastrophes, pandemics or man-made disasters, could adversely affect the Company's results or operations. The Group continues to monitor these developments and their impacts on its operations and its investments.

Income statement Swiss Re Ltd

For the years ended 31 December

CHF millions	Notes	2022	2023
Revenues			
Investment income	2	1 803	**1 627**
Trademark licence fees		469	**454**
Other revenues		28	**1**
Total revenues		2 300	**2 082**
Expenses			
Administrative expenses	3	–241	**–387**
Investment expenses	2	–727	**–344**
Other expenses		–11	**–131**
Total expenses		–979	**–862**
Income before income tax expense		1 321	**1 220**
Income tax expense		–26	**–27**
Net income		1 295	**1 193**

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

Balance sheet Swiss Re Ltd

As of 31 December
Assets

CHF millions	Notes	2022	2023
Current assets			
Cash and cash equivalents		1	**0**
Short-term investments	4, 5	52	**46**
Receivables from subsidiaries and affiliated companies	5	1 483	**2 122**
Other receivables and accrued income		124	**75**
Loans to subsidiaries and affiliated companies		2 421	**1 889**
Total current assets		4 081	**4 132**
Non-current assets			
Loans to subsidiaries and affiliated companies		1 907	**1 430**
Investments in subsidiaries and affiliated companies	6	18 555	**18 471**
Total non-current assets		20 462	**19 901**
Total assets		24 543	**24 033**

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

Liabilities and shareholders' equity

CHF millions	Notes	2022	2023
Liabilities			
Short-term liabilities			
Payables to subsidiaries and affiliated companies		337	**507**
Other liabilities and accrued expenses		106	**101**
Loans from subsidiaries and affiliated companies		740	**697**
Short-term debt	8	–	**421**
Total short-term liabilities		1 183	**1 726**
Long-term liabilities			
Provisions		154	**–**
Long-term debt	8	2 220	**1 664**
Total long-term liabilities		2 374	**1 664**
Total liabilities		3 557	**3 390**
Shareholders' equity	9		
Share capital	11	32	**32**
Other legal capital reserves		6	**20**
Legal profit reserves		4 311	**4 330**
Reserve for own shares (indirectly held by subsidiaries)		18	**–**
Voluntary profit reserves		16 396	**16 047**
Retained earnings brought forward		–	**–**
Net income for the financial year		1 295	**1 193**
Own shares (directly held by the Company)	10	–1 072	**–979**
Total shareholders' equity		20 986	**20 643**
Total liabilities and shareholders' equity		24 543	**24 033**

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

Notes Swiss Re Ltd

1 Significant accounting principles

Basis of presentation
The financial statements are prepared in accordance with Swiss Law.

Time period
The financial year 2023 comprises the accounting period from 1 January 2023 to 31 December 2023.

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

Foreign currency translation
Assets and liabilities denominated in foreign currencies are converted into Swiss francs at year-end exchange rates, with the exception of participations, which are reported in Swiss francs at historical exchange rates. Income and expenses in foreign currencies are converted into Swiss francs using the exchange rate prevailing at the date of transaction.

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

Short-term investments
Short-term investments contain investments with an original maturity between three months and one year. Such investments are carried at cost, less necessary and legally permissible depreciation.

Receivables from subsidiaries and affiliated companies/Other receivables
These assets are generally carried at nominal value. Value adjustments are recorded where the expected recovery value is lower than the nominal value.

Receivables from subsidiaries and affiliated companies/Other receivables also include derivative financial instruments. Derivative financial instruments which have an observable market price and are traded in an active and liquid market are recorded at market value. Derivative financial instruments are traded with subsidiaries and affiliated companies.

Accrued income
Accrued income consists of both other expenditures incurred during the financial year but relating to a subsequent financial year, and revenues relating to the current financial year but receivable in a subsequent financial year.

Loans to subsidiaries and affiliated companies
Loans to subsidiaries and affiliated companies are carried at nominal value.

Investments in subsidiaries and affiliated companies
These assets are carried at cost less necessary value adjustments to reflect other than temporary decreases in the value in use.

In 2023, the direct subsidiary Swiss Re Finance UK plc was transferred to the direct subsidiary Swiss Reinsurance Company Ltd in the form of a contribution in kind with effective date of 16 May 2023. As a result, the Company increased the carrying amount of the investment in Swiss Reinsurance Company Ltd by the carrying amount of the investment in Swiss Re Finance UK plc. The contribution in kind had no impact on the Company's total assets, total liabilities or total shareholders' equity. Further details are provided in Note 6 "Investments in subsidiaries and affiliated companies".

Payables to subsidiaries and affiliated companies/Other liabilities
These liabilities are generally carried at nominal value.

Payables to subsidiaries and affiliated companies/Other liabilities also include derivative financial instruments. Derivative financial instruments which have an observable market price and are traded in an active and liquid market are recorded at market value. Derivative financial instruments are traded with subsidiaries and affiliated companies.

Accrued expenses
Accrued expenses consist of both income received before the balance sheet date but relating to a subsequent financial year, and charges relating to the current financial year but payable in a subsequent financial year.

Loans from subsidiaries and affiliated companies
Loans from subsidiaries and affiliated companies are carried at nominal value.

Provisions
Provisions contain provision for currency fluctuation and provision for taxation.

The provision for currency fluctuation comprises the net effect of foreign exchange gains and losses arising from the revaluation of the balance sheet at year-end. These net impacts are recognised in the income statement over a period of up to three years. Where the provision for currency fluctuation is insufficient to absorb net foreign exchange losses for the financial year, the provision for currency fluctuation is reduced to zero and the excess foreign exchange loss is recognised in the income statement.

The provision for taxation represents an estimate of taxes payable in respect of the reporting year.

Debt
Debt is held at redemption value.

Other legal capital reserves
Other legal capital reserves reflect gains and losses from sale of own shares (directly held by the Company).

Reserve for own shares (indirectly held by subsidiaries)
Reserve for own shares is accounted for at the book value of those shares in the statutory financial statements of the respective subsidiary.

Own shares (directly held by the Company)
Own shares are carried at cost and presented as a deduction in shareholders' equity.

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

Dividends from subsidiaries and affiliated companies
Dividends from subsidiaries and affiliated companies are recognised as investment income in the year in which they are declared.

Trademark licence fees
Trademark licence fees are charged by the Company to its direct and indirect subsidiaries and their branches that benefit from the use of the Swiss Re brand.

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

Income tax expense
Swiss Re Ltd is subject to ordinary income taxation at cantonal/communal and federal level.

Dividends from subsidiaries and affiliated companies are indirectly exempt from income taxation (participation relief).

Subsequent events
Subsequent events for the current reporting period have been evaluated up to 12 March 2024. This is the date on which the financial statements are available to be issued.

2 Investment income and expenses

CHF millions	2022	2023
Cash dividends from subsidiaries and affiliated companies	1 524	**1 202**
Realised gains on sale of investments	66	**65**
Valuation adjustments on derivative financial instruments	1	**80**
Income from short-term investments	1	**4**
Income from loans to subsidiaries and affiliated companies	152	**206**
Investment management income	0	**0**
Other interest revenues	59	**70**
Investment income	1 803	**1 627**

CHF millions	2022	2023
Realised losses on sale of investments	71	**62**
Valuation adjustments on derivative financial instruments	200	**1**
Valuation adjustments on investments in subsidiaries and affiliated companies	286	**88**
Investment management expenses	–	**0**
Other interest expenses	170	**193**
Investment expenses	727	**344**

3 Administrative expenses and personnel information

Swiss Re Ltd receives management and other services from Swiss Re Management Ltd and Swiss Reinsurance Company Ltd and has no employees of its own.

4 Securities lending

As of 31 December 2023, securities with a carrying amount of CHF 8 million (2022: CHF 0 million) were lent to Group companies or third parties under securities lending agreements.

5 Derivative financial instruments

As of 31 December 2023, the Company's assets for derivative financial instruments carried at market value amounted to CHF 101 million (2022: CHF 57 million).

To secure the net position of certain derivative financial assets and liabilities, securities with a carrying amount of CHF 26 million (2022: CHF 35 million) were deposited in favour of Group companies.

6 Investments in subsidiaries and affiliated companies

As of 31 December 2023 and 2022, Swiss Re Ltd held directly the following investments in subsidiaries and affiliated companies:

As of 31 December 2023[1]	Domicile	Currency	Share capital (millions)	Affiliation in %	Voting interest in %
Swiss Reinsurance Company Ltd	Zurich	CHF	34.4	100	100
Swiss Re Principal Investments Company Ltd	Zurich	CHF	0.1	100	100
Swiss Re Management Ltd	Zurich	CHF	0.1	100	100
Swiss Re Insurance-Linked Investment Management AG	Zurich	CHF	1.5	100	100

As of 31 December 2022	Domicile	Currency	Share capital (millions)	Affiliation in %	Voting interest in %
Swiss Reinsurance Company Ltd	Zurich	CHF	34.4	100	100
Swiss Re Principal Investments Company Ltd	Zurich	CHF	0.1	100	100
Swiss Re Management Ltd	Zurich	CHF	0.1	100	100
Swiss Re Insurance-Linked Investment Management AG	Zurich	CHF	1.5	100	100
Swiss Re Finance (UK) plc	London	GBP	1.0	100	100

[1] The subsidiary Swiss Re Finance (UK) plc was transferred to the direct subsidiary Swiss Reinsurance Company Ltd in the form of a contribution in kind with effective date of 16 May 2023.

Further disclosures in respect of investments in significant indirect subsidiaries and affiliated companies are detailed in Note 20 "Significant subsidiaries and equity investees" on pages 233 to 235 in the notes to the Group's 2023 financial statements, where the voting interests are equal to the affiliations disclosed.

7 Commitments

The Company has established subordinated debt facilities which allow the Company to issue subordinated callable notes at any time. The Company pays a fee on the available commitment under the facility and an interest rate on issued notes. Notes, issued under the facilities, are classified as subordinated debt.

On 17 October 2023, the Company partially repurchased subordinated notes in the amount of CHF 566 million, representing a nominal value of USD 673 million (2022: CHF 0 million). The maximum commitment under the repurchased subordinated debt facilities for both drawn and undrawn amounts were subsequently reduced by the same amount.

As of 31 December 2023, subordinated notes in the amount of CHF 1 664 million (2022: CHF 1 758 million) were issued under the facilities.

The following tables provide an overview of the subordinated debt facilities as of 31 December 2023 and 2022, respectively:

As of 31 December 2023	Issued in	Currency	Nominal value in millions	Nominal value in millions drawn[3]	Commitment fee (paid on undrawn amount)	Interest rate on issued notes[1]	Facility next termination date	Issued notes' scheduled maturity date
Dated subordinated fixed-to-floating rate callable notes facility	2015	USD	700	700	3.53%	5.75%	2025	2050
Dated subordinated fixed rate callable notes facility[4]	2016	USD	23	23	3.92%	6.05%	2031	2056
Dated subordinated fixed-to-floating rate callable notes facility	2016	USD	800	800	3.67%	5.625%	2027	2052
Perpetual subordinated fixed spread callable notes facility[4]	2017	USD	454	454	2.73%	5.524%	2027	Perpetual[2]

[1] Until next optional redemption date.
[2] Next optional redemption date in 2027 and every five years thereafter.
[3] Details on drawn amounts available in Note 8 Debt.
[4] Nominal values after partial repurchase of subordinated notes on 17 October 2023 in the total amount of CHF 566 million.

As of 31 December 2022	Issued in	Currency	Nominal value in millions	Nominal value in millions drawn	Commitment fee (paid on undrawn amount)	Interest rate on issued notes[1]	Facility first termination date	Issued notes' scheduled maturity date
Dated subordinated fixed-to-floating rate callable notes facility	2015	USD	700	700	3.53%	5.75%	2025	2050
Dated subordinated fixed rate callable notes facility	2016	USD	400	400	3.92%	6.05%	2031	2056
Dated subordinated fixed-to-floating rate callable notes facility	2016	USD	800	800	3.67%	5.625%	2027	2052
Perpetual subordinated fixed spread callable notes facility	2017	USD	750	–	2.73%[3]	5.524%[3]	2022	Perpetual[2]

[1] Until next optional redemption date.
[2] Next optional redemption date in 2027 and every five years thereafter.
[3] The interest rate on issued notes was reset in 2022 resulting in a small reduction in the commitment fee, but the new values were not shown in the 2022 Swiss Re Ltd Annual Report. Therefore the two correct rates as of 31 December 2022 are restated in the table above.

In 2015 and 2016, the Company entered into subordinated funding facilities with its subsidiary Swiss Reinsurance Company Ltd under which Swiss Reinsurance Company Ltd has the right, among others, to issue subordinated notes to the Company at any time.

Until 10 May 2022, the facilities were undrawn and for its various rights, Swiss Reinsurance Company Ltd owed the Company an unconditional fixed commitment fee on the total facility amount, payable in annual instalments. Annually, Swiss Reinsurance Company Ltd received a partial reimbursement of the commitment fee on the undrawn facility amount.

On 11 May 2022, the facilities were fully drawn and turned into subordinated loans. Therefore, the commitment fee and the related reimbursement ceased on the drawdown date and in return, the Company received an annual interest payment from Swiss Reinsurance Company Ltd.

On 7 December 2023, the subordinated funding facilities with Swiss Reinsurance Company Ltd were terminated.

The following table provides an overview of the subordinated funding facilities as of 31 December 2022:

As of 31 December 2022	Borrower	Issued in	Currency	Nominal value in millions	Nominal value in millions drawn	Total commitment fee on nominal value	Reimbursement fee on undrawn amount	Net commitment fee on undrawn amount	Maturity
Subordinated funding facility	Swiss Reinsurance Company Ltd	2015	USD	700	700	5.80%	2.22%	3.58%	2030
Subordinated funding facility	Swiss Reinsurance Company Ltd	2016	USD	400	400	6.10%	2.13%	3.97%	2036
Subordinated funding facility	Swiss Reinsurance Company Ltd	2016	USD	800	800	5.68%	1.95%	3.73%	2032

8 Debt

In 2023, the Company issued notes under the subordinated debt facilities in a total amount of CHF 631 million (2022: CHF 1 758 million). In addition, the Company repurchased notes under the subordinated facilities in a total amount of CHF 566 million (2022: CHF 0 million). As of 31 December 2023, Swiss Re Ltd had outstanding external debt of CHF 2 085 million (2022: CHF 2 220 million), whereof CHF 19 million (2022: CHF 370 million) are due after five years.

Instrument	Issued in	Currency	Nominal in millions	Interest rate	Maturity	Book value CHF millions
Convertible debt	2018	USD	500	3.25%	2024	421
Subordinated debt	2022	USD	700	5.75%	2025[1]	589
Subordinated debt	2022	USD	800	5.63%	2027[1]	673
Subordinated debt[2]	2022	USD	23	6.05%	2031[1]	19
Perpetual subordinated debt[2]	2023	USD	454	5.52%	2027[1]	383

[1] First call date.
[2] Nominal values after partial repurchase of subordinated notes on 17 October 2023 in the total amount of CHF 566 million (reference to Note 7 Commitments).

9 Change in shareholders' equity

CHF millions	Share capital	Legal capital reserves	Legal profit reserves	Reserves for own shares	Voluntary profit reserves	Retained earnings brought forward	Net income for the financial year	Own shares	Total shareholders' equity
Shareholders' equity 1.1.2023	32	6	4 311	18	16 396	–	1 295	–1 072	20 986
Allocation of net income					1 295		–1 295		–
Dividend for the financial year 2022					–1 644				–1 644
Net income for the financial year							1 193		1 193
Other movements in own shares		14	19	–18				93	108
Shareholders' equity 31.12.2023	**32**	**20**	**4 330**	**0**	**16 047**	**–**	**1 193**	**–979**	**20 643**

CHF millions	Share capital	Legal capital reserves	Legal profit reserves	Reserves for own shares	Voluntary profit reserves	Retained earnings brought forward	Net income for the financial year	Own shares	Total shareholders' equity
Shareholders' equity 1.1.2022	32	5	4 311	18	17 491	–	610	–1 077	21 390
Allocation of net income					610		–610		–
Dividend for the financial year 2021					–1 705				–1 705
Net income for the financial year							1 295		1 295
Other movements in own shares		1	0	0				5	6
Shareholders' equity 31.12.2022	32	6	4 311	18	16 396	–	1 295	–1 072	20 986

10 Own shares (directly and indirectly held by the Company)

Number of own shares	2022	**2023**
Own shares held by subsidiaries	*199 569*	***228 498***
Own shares held by Swiss Re Ltd directly	*28 344 543*	***28 280 738***
Opening balance own shares	28 544 112	**28 509 236**
Purchase of own shares[1]	521 690	**225 296**
Sale of own shares[2]	–556 566	**–1 642 596**
Own shares as of 31 December	28 509 236	**27 091 936**

[1] Purchased at average price of CHF 91.34 (2022: CHF 80.26).
[2] Sold at average price of CHF 89.76 (2022: CHF 81.85).

11 Major shareholders

As of 31 December 2023, there were two shareholders with their participations exceeding the 3% threshold of Swiss Re Ltd's share capital:

Shareholder	Number of shares	% of voting rights and share capital[1]	Creation of the obligation to notify
BlackRock, Inc	16 477 986	5.19	10 November 2021
UBS Fund Management (Switzerland) AG	9 534 424	3.00	5 July 2022

[1] The percentage of voting rights is calculated at the date the obligation was created and notified.

Further information in respect of major shareholders is detailed in "Group structure and shareholders" on pages 74 to 75 of the Group's 2023 Financial Report.

In addition, Swiss Re Ltd held, as of 31 December 2023, directly and indirectly 27 091 936 (2022: 28 509 236) own shares, representing 8.53% (2022: 8.98%) of voting rights and share capital. Swiss Re Ltd cannot exercise the voting rights of own shares held.

12 Release of undisclosed reserves

In 2023 and 2022, no net undisclosed reserves were released.

13 Contingent liabilities

Swiss Re Ltd has issued guarantees to its subsidiaries and affiliated companies in support of their business activities by securing their overall capital positions or specific transactions. As of 31 December 2023, the Company has guaranteed CHF 967 million (2022: CHF 1 770 million), of which no amount was utilised as of 31 December 2023 and 2022, respectively.

14 Capital band

The Company has a capital band ranging from CHF 28 579 730.60 (lower limit) to CHF 40 249 730.60 (upper limit). The Board of Directors is authorised within the capital band to increase or reduce the share capital of the Company until 12 April 2025 subject to further conditions. In 2023, there were no such changes in the share capital.

Proposal for allocation of disposable profit

The Board of Directors proposes to the Annual General Meeting to be held in Zurich on 12 April 2024 to approve the following allocations and dividend payment:

CHF millions	2022	2023
Retained earnings brought forward	–	**–**
Net income for the financial year	1 295	**1 193**
Disposable profit	1 295	**1 193**
Allocation to voluntary profit reserves	–1 295	**–1 193**
Retained earnings after allocation	–	**–**

CHF millions	2022	2023
Voluntary profit reserves brought forward	16 396	**16 047**
Allocation from retained earnings	1 295	**1 193**
Ordinary dividend payment out of voluntary profit reserves	–1 644[1]	**–1 662**[2]
Voluntary profit reserves after allocation and dividend payment	16 047	**15 578**

[1] Since the Board of Directors' proposal for allocation of disposable profit, included in the Annual Report 2022, the number of registered shares eligible for dividend, at the dividend payment date of 18 April 2023, increased due to the transfer of 69 443 shares for employee participation purposes from not eligible to eligible for dividend. The published USD/CHF exchange rate as of 13 April 2023 was 0.88875 compared to 0.92505 as of 31 December 2022. This resulted in a lower dividend of CHF 67 million, compared to the Board of Directors' proposal, and higher voluntary profit reserves by the same amount.

[2] The Board of Directors' proposal to the Annual General Meeting of 12 April 2024 is based on the number of shares eligible for dividend and the USD/CHF exchange rate of 0.84151, both as of 31 December 2023. The actual dividend payment in CHF will depend on the number of shares eligible for dividend and a published USD/CHF exchange rate as of 15 April 2024. In order to comply with the Swiss Code of Obligations, the proposed ordinary dividend payment out of voluntary profit reserves, translated into CHF on 15 April 2024, must not exceed CHF 3 500 million.

Dividend

If the Board of Directors' proposal for allocations and dividend payment is accepted, an ordinary dividend of USD 6.80 per share will be paid on 18 April 2024 from voluntary profit reserves.

Share structure per 31 December 2023	Number of registered shares	Nominal capital in CHF
Eligible for dividend[1]	290 405 370	**29 040 537**
Not eligible for dividend	27 091 936	**2 709 194**
Total shares issued	317 497 306	**31 749 731**

[1] The Board of Directors' proposal to the Annual General Meeting of 12 April 2024 is based on the number of shares eligible for dividend and the USD/CHF exchange rate of 0.84151, both as of 31 December 2023. The actual dividend payment in CHF will depend on the number of shares eligible for dividend and a published USD/CHF exchange rate as of 15 April 2024. In order to comply with the Swiss Code of Obligations, the proposed ordinary dividend payment out of voluntary profit reserves, translated into CHF on 15 April 2024, must not exceed CHF 3 500 million.

Zurich, 12 March 2024

Statutory Auditor's Report

To the General Meeting of Swiss Re Ltd, Zurich

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Swiss Re Ltd (the Company), which comprise the balance sheet as at 31 December 2023, and the income statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 249 to 258) comply with Swiss law and the Company's articles of incorporation.

Basis for Opinion

We conducted our audit in accordance with Swiss law and Swiss Standards on Auditing (SA-CH). Our responsibilities under those provisions and standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are independent of the Company in accordance with the provisions of Swiss law, together with the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements.

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

Key Audit Matters

IMPAIRMENT ASSESSMENT OF INVESTMENTS IN SUBSIDIARIES AND AFFILIATED COMPANIES

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

IMPAIRMENT ASSESSMENT OF INVESTMENTS IN SUBSIDIARIES AND AFFILAITED COMPANIES

Key Audit Matter

The Company has recorded investments in subsidiaries and affiliated companies of CHF 18 471 million and a valuation adjustment on these investments of CHF 88.5 million as of 31 December 2023. Investments in subsidiaries and affiliated companies are recognised at acquisition cost or, in the case of expected permanent impairment, at the lower fair value. The investments in subsidiaries and affiliated companies are not listed on an active market. The company determines the fair value of investments in subsidiaries and affiliated companies, representing the difference between the fair value of
assets and liabilities, using the internal established valuation method.

Our response

As part of our audit, we gained an understanding of the process related to the impairment assessment of investments in subsidiaries and affiliated companies. We performed a risk assessment to determine the amount of the headroom which would give us the scope of the investments in subsidiaries and affiliated companies with a higher risk on recoverability. For these investments in subsidiaries and affiliated companies we performed the following audit procedures:

— Assessing the appropriateness of the valuation method used against recognised accounting methods and Swiss Law.

KPMG AG
Zurich, 12 March 2024

The recoverability of investments in subsidiaries and affiliated companies is supported by an impairment assessment by comparing the book value against the Company's determined fair value. Depending on the amount of the headroom between the book value and the determined fair value, the recoverability represents a higher risk.

The applied valuation method for the valuation of certain assets and liabilities uses assumptions which are partially based on internal estimate and therefore require subjectivity and judgment.

The impairment assessment for investments in subsidiaries and affiliated companies has been designated as a key audit matter given an increased extent of audit effort, including the involvement of specialized skills and knowledge, due to the valuation method used and estimate uncertainty associated with the assumptions.

- Assessing the client's fair value by using an alternative valuation method.
- Assessing the accuracy of the valuation allowance by comparing the valuation allowance calculated and the booked amount.

We involved our valuation specialists who supported the audit team in:

- Assessing the valuation methodologies in light of market knowledge and experience.
- Assessing the assumptions which have been used for the purpose of the impairment test.

For the investments in subsidiaries and affiliated companies with reinsurance or corporate solutions business, we involved our actuarial specialists who supported the audit team in:

- Performing a comparison of the used actuarial methods, models and assumptions across the liabilities for life and health policy benefits reserves between the internal valuation method and Swiss law.
- Challenging the applied discount rates for unpaid claims by comparing to external market information.

For further information on impairment assessment of investments in subsidiaries and affiliated companies refer to the following:

- Note 1
- Note 2
- Note 6

Other Information

The Board of Directors is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements, the stand-alone financial statements of the Company, the compensation report and our auditor's reports thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Board of Directors' Responsibilities for the Financial Statements

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the Company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and SA-CH will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Swiss law and SA-CH, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

— Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, 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. 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 Company's internal control.

— Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.

— 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 Company'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 Company to cease to continue as a going concern.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our 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.

Report on Other Legal and Regulatory Requirements

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

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the Company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

KPMG AG

Dr. Frank Pfaffenzeller
Licensed Audit Expert
Auditor in Charge

Elina Monsch
Licensed Audit Expert

Zurich, 12 March 2024

KPMG AG, Badenerstrasse 172, CH-8036 Zurich

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Cautionary note on forward-looking statements

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

Forward-looking statements typically are identified by words or phrases such as "anticipate", "target", "aim", "assume", "believe", "continue", "estimate", "expect", "foresee", "intend" and similar expressions, or by future or conditional verbs such as "will", "may", "should", "would" and "could". These forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause Swiss Re's (the "Group") actual results of operations, financial condition, solvency ratios, capital or liquidity positions or prospects to be materially different from any future results of operations, financial condition, solvency ratios, capital or liquidity positions or prospects expressed or implied by such statements or cause the Group to not achieve its published targets. Such factors include, among others:

- macro-economic events or developments including inflation rates, increased volatility of, and/or disruption in, global capital, credit, foreign exchange and other markets and their impact on the respective prices, interest and exchange rates and other benchmarks of such markets;
- elevated geopolitical risks or tensions which may consist of conflicts arising in and between, or otherwise impacting, countries that are operationally and/or financially material to the Group or significant elections that may result in domestic and/or regional political tensions as well as contributing to or causing macro-economic events or developments as described above;
- the frequency, severity and development of, and losses associated with, insured claim events, particularly natural catastrophes, human-made disasters, pandemics, social inflation litigation, acts of terrorism or acts of war, including the ongoing war in Ukraine as well as conflicts in the Middle East, and any associated governmental and other measures such as sanctions, expropriations and seizures of assets as well as the economic consequences of the foregoing;
- the Group's adherence to standards related to environmental, social and governance ("ESG"), sustainability and corporate social responsibility ("CSR") matters and ability to fully achieve goals, targets, ambitions or stakeholder expectations related to such matters;
- the Group's ability to achieve its strategic objectives;
- legal actions or regulatory investigations or actions, including in respect of industry requirements or business conduct rules of general applicability, the intensity and frequency of which may also increase as a result of social inflation;
- central bank intervention in the financial markets, trade wars or other protectionist measures relating to international trade arrangements, adverse geopolitical events, domestic political upheavals or other developments that adversely impact global economic conditions;

- mortality, morbidity and longevity experience;
- the cyclicality of the reinsurance sector;
- the Group's ability to maintain sufficient liquidity and access to capital markets, including sufficient liquidity to cover potential recapture of reinsurance agreements, early calls of debt or debt-like arrangements and collateral calls due to actual or perceived deterioration of the Group's financial strength or otherwise;
- the Group's inability to realise amounts on sales of securities on the Group's balance sheet equivalent to their values recorded for accounting purposes;
- the Group's inability to generate sufficient investment income from its investment portfolio, including as a result of fluctuations in the equity and fixed income markets, the composition of the investment portfolio or otherwise;
- changes in legislation and regulation or the interpretations thereof by regulators and courts, affecting the Group or its ceding companies, including as a result of comprehensive reform or shifts away from multilateral approaches to regulation of global operations;
- matters negatively affecting the reputation of the Group, its board of directors or its management;
- the lowering, loss or giving up of one of the financial strength or other ratings of one or more companies in the Group, and developments adversely affecting its ability to achieve improved ratings;
- uncertainties in estimating reserves, including differences between actual claims experience and underwriting and reserving assumptions, including in Life & Health and in Property & Casualty Reinsurance due to higher costs caused by pandemic-related or inflation and supply chain issues;
- changes in our policy renewal and lapse rates and their impact on the Group's business;
- the outcome of tax audits, the ability to realise tax loss carryforwards and the ability to realise deferred tax assets (including by reason of the mix of earnings in a jurisdiction or deemed change of control), which could negatively impact future earnings, and the overall impact of changes in tax regimes on the Group's business model;
- changes in accounting estimates or assumptions that affect reported amounts of assets, liabilities, revenues or expenses, including contingent assets and liabilities as well as changes in accounting standards, practices or policies, including the Group's decision to transition from US GAAP to IFRS beginning 1 January 2024;
- strengthening or weakening of foreign currencies;
- reforms of, or other potential changes to, benchmark reference rates;
- failure of the Group's hedging arrangements to be effective;
- significant investments, acquisitions or dispositions, and any delays, unforeseen liabilities or other costs, lower-than-expected benefits, impairments, ratings action or other issues experienced in connection with any such transactions;
- extraordinary events affecting the Group's clients and other counterparties, such as bankruptcies, liquidations and other credit-related events;
- changing levels of competition in the markets and geographies in which the Group competes;
- the effects of business disruption due to terrorist attacks, cyberattacks, natural catastrophes, public health emergencies, hostilities or other events;
- limitations on the ability of the Group's subsidiaries to pay dividends or make other distributions; and
- operational factors, including the efficacy of risk management or the transition to IFRS as well as other internal procedures in anticipating and managing the foregoing risks.

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

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The web version of the
Annual Report 2023 is available at:
reports.swissre.com