Swiss Re

Financial Report

2022

Financial highlights

Financial highlights

For the years ended 31 December

USD millions, unless otherwise stated	2021	2022	Change in %
Group			
Net income/loss attributable to common shareholders	1 437	472	–67
Gross premiums written	46 658	47 889	3
Premiums earned and fee income	42 726	43 118	1
Earnings per share in CHF	4.52	1.63	–
Shareholders' equity	23 568	12 699	–46
Return on equity in %[1]	5.7	2.6	
Return on investments in %	3.2	2.0	
Net operating margin in %[2]	5.1	2.7	
Number of employees[3]	13 985	14 408	3
Property & Casualty Reinsurance[4]			
Net income/loss attributable to common shareholders	2 216	312	–86
Gross premiums written	23 246	23 848	3
Premiums earned	21 926	22 028	0
Combined ratio in %	97.1	102.4	
Net operating margin in %[2]	12.2	3.2	
Return on equity in %[1]	21.4	3.8	
Life & Health Reinsurance[4]			
Net income/loss attributable to common shareholders	–478	416	–
Gross premiums written	16 119	15 986	–1
Premiums earned and fee income	14 995	14 984	–0
Net operating margin in %[2]	–1.8	4.3	
Return on equity in %[1]	–5.6	8.4	
Corporate Solutions			
Net income/loss attributable to common shareholders	578	486	–16
Gross premiums written	7 492	8 198	9
Premiums earned	5 343	5 482	3
Combined ratio in %	90.6	93.1	
Net operating margin in %[2]	13.5	11.0	
Return on equity in %[1]	22.3	20.0	

[1] Return on equity is calculated by dividing net income/loss attributable to common shareholders by average common shareholders' equity.
[2] Net operating margin is calculated as "Income before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked and with-profit business".
[3] Regular staff.
[4] Comparative information for 2021 has been revised to reflect the reallocation of part of Principal Investments, Admin Re US as well as certain cross-segmental loans from Group items to Reinsurance.

Swiss Re's Annual Report

Swiss Re's Annual Report consists of the Business Report and the Financial Report.

Financial Report
This publication provides a more detailed account of Swiss Re's financial performance during the year and the market trends influencing its business. It also provides details on risk and capital management, as well as information on our governance and compensation.

Contents

Financial Year

Swiss Re reported a net income of USD 472 million for 2022, targets more than USD 3 billion for 2023.

The global economy and financial markets

Year in review

World real GDP growth roughly halved from 2021 to 2022 amid several geopolitical and macro shocks. The unexpected war in Ukraine triggered a global energy crisis and inflation shock, bringing consumer price inflation rates to 40-year highs in the US and euro area. This precipitated the fastest interest rate rises in decades, particularly in the US, which in turn pushed the US dollar to multi-year highs. This backdrop resulted in some of the largest falls in value in years across financial markets from stocks to bonds.

Global economic growth
Global real GDP growth declined to 3% in 2022 from 6% in 2021 due to a combination of idiosyncratic factors, principally the fading growth boost from economic reopening after pandemic restrictions; economic repercussions from the war in Ukraine (eg. inflation, cost of living crisis); as well as the unwind of COVID-19 fiscal stimulus and rapid monetary policy tightening to address high inflation.

Advanced markets (+3%) grew at a slower rate than emerging markets (+4%). The US entered a technical recession – defined as two consecutive quarters of negative GDP growth – in the first half of 2022, which brought US full-year real GDP growth (+2%) lower than the euro area (+4%). The overall euro area experienced positive real economic growth through all quarters of 2022, despite headwinds from the war in Ukraine and the energy crisis.

India was the outperformer among major emerging markets, experiencing real GDP growth of 7%, well above China (3%) and Brazil (3%). India benefited from pent-up domestic demand from the post-COVID reopening. China, the world's second-largest economy, was the key drag on the aggregate emerging market growth rate in 2022, primarily due to strict COVID-19 restrictions. Russia's economy contracted by 3%, due to sanctions and other economic repercussions of the war in Ukraine.

Inflation
The war in Ukraine triggered spikes in global energy and food prices in 2022, pushing up Consumer Price Index (CPI) inflation to about four-decade highs in all G7 countries. Moderating energy and food prices later in the year helped to act as a brake on headline CPI rates in most markets, but other underlying price pressures, such as wages and rents, exhibited more persistence. Inflation forces in areas relevant for property insurance claims, such as construction and producer prices, were even more intense than in consumer prices.

Europe was worst affected by inflation among advanced markets due to its greater exposure to the energy crisis, the lagged response of the European Central Bank (ECB) and imported inflation arising from currency weakness against the US dollar. Headline CPI inflation rates reached double digits across European countries in 2022 and would have been higher if not for government interventions, such as price caps on retail energy and electricity costs. In the US, CPI inflation was more demand-driven and peaked earlier, at 9.1% in June.

Emerging markets faced significant imported inflation from currency depreciation against the US dollar over 2022, with net commodity importers most hurt. In China, consumer prices were largely insulated from the global inflation surge. CPI inflation averaged only 2.0% in 2022 as consumer demand was subdued due to COVID-19 restrictions.

Economic indicators 2021–2022

	USA		Eurozone		UK		Japan		China	
	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**
Real GDP growth [1]	5.7	**2.1**	5.5	**3.5**	8.5	**4.0**	1.7	**1.3**	8.4	**3.0**
Inflation [1]	4.7	**8.0**	2.6	**8.4**	2.6	**9.1**	−0.2	**2.5**	0.9	**2.0**
Long-term interest rate [2]	1.5	**3.9**	−0.2	**2.6**	1.0	**3.7**	0.1	**0.4**	2.8	**2.8**
USD exchange rate [2,3]	–	**–**	113	**107**	135	**120**	0.87	**0.75**	15.7	**14.5**

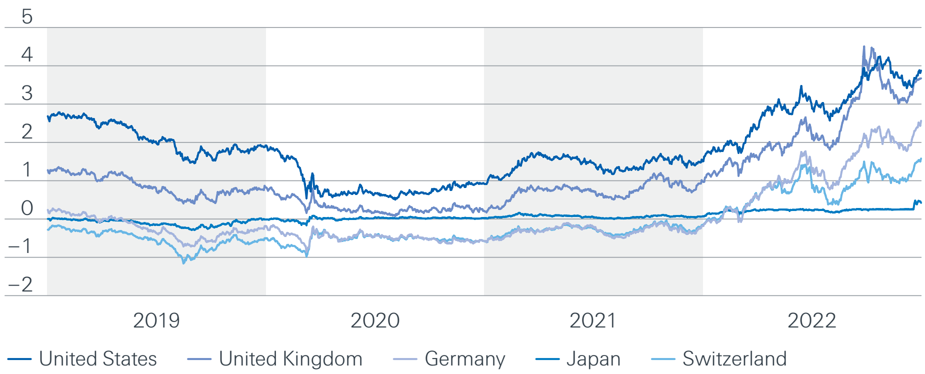
[1] Yearly average
[2] Year-end
[3] USD per 100 units of foreign currency

Source: Refinitiv, Oxford Economics, Swiss Re Institute

3.9%
US 10-year Treasury bond yield
Year-end 2022

2.6%
German 10-year Bund yield
Year-end 2022

Interest rates for 10-year government bonds 2019–2022, %



Source: Refinitiv, Swiss Re Institute

Interest rates
The era of ultra-low and negative interest rates ended in 2022 as central banks tried to tame surging inflation. The US Federal Reserve (Fed) rapidly raised policy rates by 425 basis points (bps) to a range of 4.25–4.5%, the highest since the Global Financial Crisis (GFC). The Fed also began to reduce its balance sheet ("quantitative tightening"). The ECB raised its policy rates by 250 bps (the refinancing rate reached 2.50%), ending Europe's negative interest rate regime.

There was greater differentiation across emerging markets. Latin American central banks entered 2022 having already commenced their rate hiking cycle in 2021. In Asia, central banks raised interest rates later and less aggressively. In China and Turkey, policy rates were cut.

Long-term sovereign bond yields ended 2022 significantly higher than a year earlier in response to inflation and central bank tightening (see interest rate chart on prior page). Volatility in bond yields was at levels generally only seen in crises such as the GFC and the COVID-19 pandemic. 10-year US Treasury yields surged from below 2% at the start of 2022 to above 4% in October, a level not seen since 2008, resulting in one of the lowest annual total returns from 10-year US Treasury bonds in history.

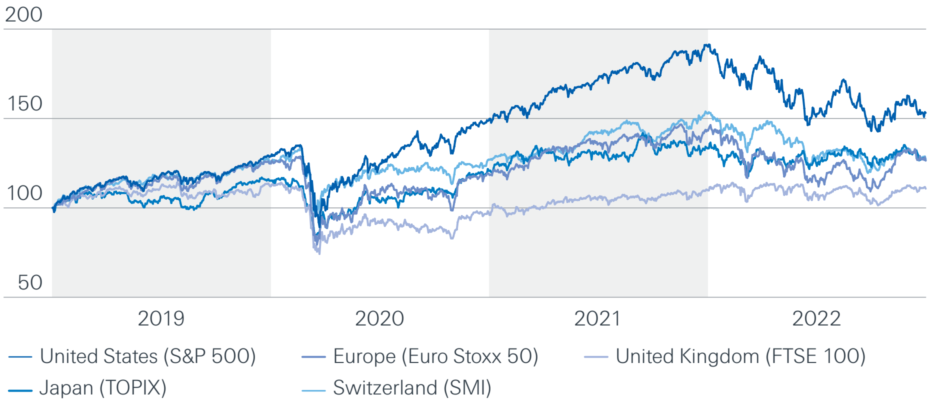
Stock market performance
Stock markets experienced a volatile 2022 and ended the year significantly lower than a year earlier (see stock markets chart) due to the combination of macroeconomic and geopolitical shocks. A key driver was higher expected interest rates resulting from the inflation shock. This triggered a forceful valuation-driven equity correction, pushing stock markets into bear market territory. Global stocks reached their lowest points in September and October, at which point, for example, the US S&P 500 had fallen 25% year-to-date. Investor fears of a recession weighed on stock market sentiment too. Optimism that central banks might slow the pace of interest rate rises led to brief market rallies in the second half of 2022, but these were insufficient to generate positive returns on stock indices on an annual basis.

Among advanced markets, the US S&P 500 had its worst annual performance since 2008 (–19%), underperforming European equities (Euro Stoxx 50 –12%, FTSE 100 +1%) in local currency terms. Emerging markets stock indices closed 2022 even lower (MSCI EM –22%, Shanghai Composite Index –15%). Looking across sectors, energy stocks were the key exception, posting gains, while interest rate and growth-sensitive sectors such as tech, consumer discretionary and real estate ended 2022 particularly negative.

Currency movements
The US dollar rose sharply against other world currencies in 2022.[1] The currency peaked at its highest level in two decades in October. The strength was driven by interest rate differentials, as the Fed raised interest rates higher and faster than other central banks. The US dollar also benefited from its safe haven status. However, roughly half of these gains reversed in the final quarter of 2022, as a deceleration in US inflation tempered expectations of further Fed tightening, and as other central banks progressed their own rate rises.

Landmark events in currency markets in 2022 included the British pound falling in September to its lowest level against the US dollar since 1985, and the euro becoming temporarily below parity with the US dollar for the first time since 2002. In Asia, the Japanese yen touched its lowest level against the US dollar since 1998, prompting the Bank of Japan to intervene in markets in September. While all these currencies strongly rebounded in the final quarter of 2022, they still ended the full year overall lower against the US dollar (pound –11%, euro –6%, yen –12%).

Stock markets 2019–2022, indexed 100 = January 2019



Source: Refinitiv, Swiss Re Institute

[1] Bloomberg, US Dollar Index (DXY index).

Outlook

Year ahead economic outlook
Swiss Re forecasts a challenging economic outlook globally in 2023, with continuing monetary policy tightening to address persistent inflation. The world economy is expected to grow by around 2% in real terms in 2023. Although Swiss Re believes CPI inflation rates are now past their peaks and declining, inflation is expected to stay above historic averages in 2023 and 2024. The energy crisis outlook in Europe has moderated due to warm weather and less demand over the winter 2022–23, allowing gas storage levels to remain unseasonably high. However, China's reopened economy may lead to renewed inflation in commodity prices in 2023.

The pace of the interest rate hiking cycle has slowed, but Swiss Re expects policy interest rates in major economies to end 2023 higher than at the end of 2022. Swiss Re expects major central banks to begin to cut rates from 2024 at the earliest. This implies that interest rates are set to stay restrictive throughout 2023 in an attempt to counter persistent underlying price pressures.

Higher interest rates are expected to slow economic activity eventually. Robust economic activity in early 2023 suggests that the slowdown, and a recession in the US, could take time to materialise.

Global bond yields should rise in 2023, after the Bank of Japan signalled an end to ultra-accommodative monetary policy late in December 2022. That said, Swiss Re forecasts yields on US 10-year government bonds to ultimately end 2023 lower versus end-2022 levels due to the prospect of Fed rate cuts in 2024, easing inflation and weaker economic growth.

Long-term outlook: the four "Ds"
We have added a fourth "D", for "Debt", to our "3Ds" set of structural factors affecting the economic outlook, of Divergence, Digitalisation and Decarbonisation. Government measures to support households and businesses through the cost-of-living crisis last year added to public debt levels that were already elevated after spending on the COVID-19 pandemic. Investor concerns about public debt sustainability may grow in 2023 as higher interest rates push up debt service costs, while slower growth could limit tax revenues.

The ongoing restrictive interest rate policies of central banks to counter inflation could constrain governments' fiscal space to weather future shocks. In a supply-constrained economy, more long-term investment could expand economies' productive supply capacity. For example, in the energy sector, governments could use investment, incentives or regulation to secure a greener, more reliable and cheaper energy supply after the energy supply shock in 2022. Structural reforms and industrial policy could also help to promote long-term supply chain resilience, in turn lowering vulnerability to future shocks.

Primary non-life

4 200
Market size in USD billions
Estimated global premiums written in 2022

1%
Market growth
Estimated real premium growth in 2022

Market overview
The global non-life insurance industry generated close to USD 4 200 billion in gross premiums in 2022. Non-life insurance ranges from motor to property, specialty, personal accident, health and liability insurance. Health covers account for about 48% of total non-life premiums; commercial property and casualty (P&C) about 24%, and personal P&C lines about 28%.

Market performance
Swiss Re estimates that global non-life insurance premiums increased by 1% in real terms in 2022, below the 3% average annual growth from 2017–2021. Multi-decade-high inflation in 2022 caused insurance exposures to increase, which, together with higher insurance pricing, translated into above-trend nominal premium growth of 8%. An inflationary economic slowdown in major economies negatively impacted investment, consumption and ultimately demand for non-life insurance in 2022. Insurance rate hardening was not sufficient to generate significant real growth in premiums.

Personal and commercial lines performance diverged as high inflation put cost of living pressure on households. Personal lines premiums declined by an estimated 1% in real terms in 2022 as demand softened and regulatory and competitive pressures on insurance companies prevented large price rises. In contrast, commercial insurance premiums rose by 3%, reflecting generally stronger pricing dynamics, especially in the lines most impacted by higher claims severity, such as property. Motor insurance was particularly challenged by soft demand and Swiss Re estimates that motor premiums globally fell by 1.5% in real terms in 2022.

Global health insurance premiums grew by a below-trend 1% in real terms in 2022. In nominal terms, health premiums grew by 8%, driven by the US (+8%), which accounts for 75% of global health premiums. There, the impact of the pandemic has prompted ongoing enrolment into the Medicaid programme, which accounts for more than half of US health premiums. Emerging markets slowed after several years of rapidly rising health insurance penetration.

In advanced markets, non-life premiums grew by less than 1% in real terms in 2022, below the 2017–2021 annual average of 3%. Advanced EMEA was particularly affected by the war in Ukraine and energy supply shocks, and premiums fell by 1%. Emerging market growth improved to 3% in 2022 from 2% in 2021, although this was still below the long-term trend. China, which accounts for more than half of emerging markets' non-life premiums, drove the rebound, largely due to the recovery in motor.

Price growth across commercial non-life insurance lines eased gradually in 2022, after very strong increases during 2020–2021[1]. All regions broadly followed this trend, although in Europe and Latin America price rises were steady at around 6% year-on-year throughout 2022. In property, high losses and constrained reinsurance capacity meant pricing reaccelerated slightly at the end of the year, and US property insurance price growth rose to 11% in the fourth quarter, from 8% in the third quarter.

Swiss Re estimates the overall profitability of the non-life insurance industry, measured by return on equity (ROE), at 3% in 2022. Industry ROE more than halved from 7% in 2021 as falling asset prices led to lower realised investment gains. There was also a marked deterioration in underwriting results, as claims severity rose due to inflation and because 2022 was one of the costliest years on record in terms of natural catastrophe losses.

Market outlook
Swiss Re forecasts real growth in non-life premiums of a below-trend 1% in 2023, as expected weak global GDP growth and sticky core inflation impact demand for insurance. However, pricing is expected to strengthen in both personal and commercial lines. Underwriting profitability is expected to improve, but only gradually as claims severity continues to grow. Better investment results due to higher fixed income yields as interest rates continue to rise moderately in early 2023, should also allow profitability to improve.

[1] Based on the 4Q22 Global Insurance Market Index report prepared by Marsh, 3 February 2023.

Reinsurance non-life

280
Market size in USD billions
Estimated global premium income in 2022

2%
Market growth
Estimated global real premium growth in 2022

Market overview
Global non-life reinsurance premiums, including health reinsurance, totalled approximately USD 280 billion in 2022, with about 23% from ceding companies in emerging markets.

Market performance
Swiss Re estimates that global non-life reinsurance premiums grew by around 2% in real terms (9% in nominal terms) in 2022, driven by strength in commercial lines, which account for most of the demand from primary insurers. Health reinsurance premiums declined 7% in real terms, mainly driven by weak US primary accident and health sales. Demand from advanced markets grew by 1% year-on-year in real terms, while emerging markets expanded by 6%.

Reinsurance price hardening continued and even gained momentum at the January to July 2022 renewals. Prices were higher year-on-year for both non-proportional and proportional reinsurance contracts in 2022, which supported premium growth and reinsurers' catastrophe-adjusted underwriting results.

Natural catastrophe losses were above average in 2022 and Swiss Re estimates full-year insured losses of around USD 115 billion. This would make 2022 the fourth-costliest year on record for the insurance industry (after 2005, 2011 and 2017). Hurricane Ian was the single largest loss event by far, with an estimated insured loss of USD 50–65 billion. The category 4 hurricane made landfall in western Florida in late September with extreme winds, torrential rain and storm surge. A series of winter storms in Europe in February 2022 led to an estimated USD 3.7 billion of insured losses, putting this key peril back on the insurance industry radar. Australia experienced flooding in February and March that became the country's costliest-ever natural catastrophe, with an insured loss of an estimated USD 4 billion. This was followed by numerous small to medium-sized hail and thunderstorms in the US, and the most severe series of hailstorms ever observed in France, with insured market losses reaching an estimated USD 5 billion.

Swiss Re estimates that the property and casualty reinsurance sector (non-life, excluding health) registered return on equity (ROE) of around 6–8% in 2022, which was again below the cost of capital for the industry. Preliminary data indicate a sector combined ratio of around 98% for 2022, the same as 2021, but an improvement from 105% in 2020 and 101% in 2019.

The mismatch between rising exposures and shrinking reinsurance supply increased in 2022. The inflation surge drove up energy prices and supply-chain disruptions led to a higher claims burden for the industry, while the trend of elevated natural catastrophe losses continued. This is in strong contrast with reinsurance supply trends. Some reinsurers have been actively shrinking property cat exposures or exiting the segment altogether as a result of insufficient profitability, while carriers are actively managing limits, making capacity relatively scarce. A broad-based drop in asset values has been a further cause of the decline in traditional capital.

Alternative capital inflow has been lacklustre since 2018. By the end of 2022, reinsurance capital (traditional and alternative) declined by 20–25% compared with year-end 2021. After adjusting for the interest rate impact of mark-to-market losses for fixed income securities, Swiss Re estimates a decline of around 5%, partly due to natural catastrophe losses.

Despite headwinds from elevated catastrophe losses, inflationary pressure on claims, and a challenging capital market environment, the sector's capital base remains very strong, allowing reinsurers to fulfil their role as the backbone of the insurance industry and to support societal resilience.

Market outlook
With the successful January 2023 renewals exhibiting strong rate increases, higher retentions for primary insurers, and tighter terms and conditions, the profitability outlook for the reinsurance sector has significantly improved. Reinsurance industry premium income is forecast to grow by 7% in real terms in 2023, which translates into 11% in nominal terms, mainly driven by increased demand from property lines of business.

Primary life

3 200

Market size in USD billions
Estimated global premium income in 2022

–2%

Market growth
Estimated global real premium growth in 2022

Market overview
The global life insurance industry generated about USD 3 200 billion of premium income in 2022, of which 24% was from emerging markets. About 80% of life insurance premium income is derived from savings and retirement products, with the rest from risk protection, which covers a range of mortality, longevity and morbidity risks. Europe accounts for the largest share of saving business at 38%, followed by North America (26%). China (31%) is the largest market for life protection business globally, followed by North America (23%).

Market performance
Swiss Re estimates that global life insurance premiums declined by 2% year-on-year in real terms in 2022, below the 2017–2021 trend of 1%. A cost of living crisis markedly reduced consumers' disposable incomes and impaired demand for individual life saving products in many countries. Stock market declines in advanced markets also disincentivised customers from purchasing new saving products. In parallel, the risk awareness impetus triggered by COVID-19 began to fade away, particularly in markets with higher insurance penetration.[1] In emerging markets, the growing middle class supported demand for life protection and saving products.

Advanced markets premium income declined by 3% in real terms in 2022. Advanced EMEA and advanced Asia Pacific were most affected as household budgets were more acutely impacted by inflation, and premium income declined by 5% and 6% respectively in real terms in these regions. The transformation of savings contracts in France, and the bulk annuity market in the UK, provided some nominal growth and cushioned real premium declines in Europe. In Japan, digitalisation and ageing demographics supported demand for life protection. North America expanded by 3% as higher interest rates and positive US regulatory developments boosted the annuities segment.

Emerging markets excluding China grew by an estimated 2% in real terms in 2022. The strongest growth was in emerging Asia, at 5% in real terms, carried by the Indian life market, which benefited from rising insurance penetration and positive regulatory developments. High inflation subdued life premium growth in Latin America. In contrast, emerging Europe and central Asia were disrupted by direct and indirect consequences of the war in Ukraine, and their combined real premiums declined by 15% in 2022. China's life insurance industry continued to navigate economic and structural challenges in 2022 and real premium growth is estimated at a relatively low 1%, below the 2017–2021 average annual 4% growth.[2]

Global life insurance sector profitability deteriorated slightly in the first half of 2022 from end-2021, as measured by US GAAP return on equity (ROE) for major listed life insurance companies. This was primarily due to the impact of COVID-19 mortality claims on life insurers' earnings in the first quarter of the year and stock markets under-performance following the Russian invasion of Ukraine. In the second half of 2022, higher interest rates started to improve insurers' investment returns, as portfolios rolled into higher yields.

Market outlook
Swiss Re forecasts below-trend global growth of 1% in life insurance premiums in real terms in 2023, but above-trend 2% growth in 2024. Savings business globally is expected to grow just below 1% in 2023, reflecting above-average inflation and regulatory tailwinds in North America, and grow above-trend from 2024.

Structural factors underpinning emerging markets' economic development will contribute to premium growth in both segments from 2023. Digital adoption along the life underwriting and claims cycle, public support for life insurance in emerging markets and the inadequacy of public pension plans in ageing societies are all expected to support demand for life insurance and reinsurance solutions.

[1] *sigma* 6/2022 - Economic stress reprices risk: global economic and insurance market outlook 2023/24, Swiss Re Institute, 17 November 2022.

[2] Stringent COVID-19 restrictions in place for most of the year weighed on consumer confidence and households' propensity to save, while the shift in distribution channels continued to drag on insurance sales although at a slower pace.

Reinsurance life

84

Market size in USD billions
Estimated global premium income in 2022

–5%

Market growth
Estimated global real premium growth in 2022

Market overview
Global life reinsurance business generated premium income of around USD 84 billion in 2022.[1] More than three-quarters of this is attributable to the US, Australia, China, Canada, Hong Kong and the UK. Ceded premiums from emerging markets accounted for 15% of global demand, with 7% for China alone. Large unrealised investment gains in 2022 reduced globally reported shareholder equity, while higher interest rates improved solvency ratios.

Market performance
Global life reinsurance premiums declined by 5% in real terms in 2022. In nominal terms, growth in the market was 1%. The underwriting of biometric and capital-light products continued to expand. Advanced markets generated 85% of global reinsurance premiums, but growth in premiums was strongest in emerging markets, at 2% in 2022. This was largely driven by emerging Asia. In advanced markets, the life reinsurance market contracted by 3% in inflation-adjusted terms, with the strongest decline in Western Europe.

The profitability of the global life reinsurance sector, measured by operating margin, improved to 6% of revenues in 2022, from 2% in 2021. However, it remained below the average of about 7% achieved from 2016–2020. Increasing investment returns were a tailwind for the life insurance segment in general, with reinvestment yields above running yields. Overall, life underwriting performance was positive in 2022. Reserve releases and fee income improved technical margins, while a rebalancing of underwriting towards health and longevity products and financial solutions offset some of the negative earnings impact from residual COVID-19 mortality claims, particularly from the US in the first half of 2022.[2]

In recent years, life reinsurers have sought to increase revenues through large, individual risk transfer transactions that help primary insurers to stabilise their income and strengthen their balance sheets. The introduction of risk-based capital regimes, particularly Solvency II in Europe, has prompted much of this activity. In 2022, the high inflation, rising interest rate environment increased the capital cost associated with the risk of lapses, prompting new pockets of growth for reinsurance solutions. Longevity risk transfer is another growth area. The availability of longevity reinsurance has become key to the pricing of annuity transactions, as insurers offering the said transactions to pension funds typically look to simultaneously access reinsurance capacity to hedge at least part of the longevity risk inherent in these lines.

Interest rate rises and volatile capital markets affected life reinsurers' balance sheets in 2022, leading to lower reported shareholder equity on a market value basis, primarily due to smaller unrealised gains on fixed income investments. Longer-duration bond portfolios were most impacted. In parallel, the impact of higher risk-free rates on liabilities valuation (under SST and Solvency II) supported solvency ratio improvements among the largest European reinsurers.[3]

Market outlook
Swiss Re forecasts global life reinsurance premiums to decrease by 2% in 2023 and grow by 2% in 2024 in real terms (+2% and +5% respectively in nominal terms), as the primary market gradually strengthens and inflation normalises.

Emerging Asia is expected to continue driving global growth, boosted by regulatory changes and government targets, particularly in India, but deceleration in China could slow its medium-term expansion.

North America, advanced Europe and advanced Asia are expected to contract again in 2023, but to grow from 2024.

Swiss Re expects further seasonal COVID-19 waves, but operating margins should stabilise as COVID-related claims normalise. The uncertainty surrounding long COVID poses downside risk.

1 Health business is accounted for under the non-life insurance sections.

2 AMBest's Market Segment Report, Global Reinsurance – The European Big Four, September 2022.

3 Differences in duration spreads between and within assets and liabilities, as well as the accounting regime influence re/insurers' sensitivity to these macro-financial developments.

Summary of financial statements

Income statement

USD millions	2021	2022	Change in %
Revenues			
Gross premiums written	46 658	47 889	3
Net premiums written	43 220	43 917	2
Change in unearned premiums	–753	–1 049	39
Premiums earned	42 467	**42 868**	1
Fee income from policyholders	259	250	–3
Net investment income – non-participating business	3 373	2 869	–15
Net realised investment gains/losses – non-participating business	537	–3	–
Net investment result – unit-linked business	63	–43	–
Other revenues	40	57	43
Total revenues	46 739	**45 998**	–2
Expenses			
Claims and claim adjustment expenses	–17 181	–19 271	12
Life and health benefits	–14 992	–14 057	–6
Return credited to policyholders	–431	–280	–35
Acquisition costs	–8 228	–7 800	–5
Operating expenses	–3 505	–3 369	–4
Total expenses before interest expenses	–44 337	**–44 777**	1
Income before interest and income tax expense	2 402	**1 221**	–49
Interest expenses	–571	–570	–
Income before income tax expense	1 831	**651**	–64
Income tax expense	–394	–171	–57
Net income before attribution of non-controlling interests	1 437	**480**	–67
Income/loss attributable to non-controlling interests		–8	–
Net income attributable to common shareholders	1 437	**472**	–67

Changes in equity

USD millions	2021	2022	Change in %
Total shareholders' equity as of 1 January	27 135	23 568	–13
Net income attributable to common shareholders	1 437	472	–67
Dividends	–1 855	–1 825	–2
Change in unrealised gains/losses on securities, net of tax	–2 956	–9 738	229
Change in foreign currency translation, net of tax	–461	68	–
Purchase/sale of treasury shares and share based payments	9	31	244
Adjustment for pension and other post-retirement benefits, net	259	124	–52
Other changes in equity		–1	–
Total shareholders' equity as of 31 December	23 568	**12 699**	–46
Non-controlling interests	110	110	
Total equity as of 31 December	23 678	**12 809**	–46

Summary balance sheet

USD millions	2021	2022	Change in %
Assets			
Fixed income securities	86 985	74 573	–14
Equity securities	3 978	2 114	–47
Other investments	16 693	16 068	–4
Short-term investments	8 462	8 907	5
Investments for unit-linked business	468	330	–29
Cash and cash equivalents	5 051	4 077	–19
Deferred acquisition costs	8 142	8 121	–
Acquired present value of future profits	836	794	–5
Reinsurance recoverable	6 482	6 507	–
Other reinsurance assets	29 407	32 074	9
Goodwill	3 970	3 863	–3
Other	11 093	13 248	19
Total assets	181 567	**170 676**	–6
Liabilities and equity			
Unpaid claims and claim adjustment expenses	84 096	85 418	2
Liabilities for life and health policy benefits	22 196	20 925	–6
Policyholder account balances	5 147	4 850	–6
Other reinsurance liabilities	21 761	23 505	8
Short-term debt	862	786	–
Long-term debt	10 323	10 252	–1
Other	13 504	12 131	–10
Total liabilities	157 889	**157 867**	–
Shareholders' equity	23 568	**12 699**	–46
Non-controlling interests	110	110	–
Total equity	23 678	**12 809**	–46
Total liabilities and equity	181 567	**170 676**	–6

"2022 was a challenging year, marked by the war in Ukraine, surging inflation, the tail end of the COVID-19 pandemic and elevated natural catastrophe losses. We have focused on addressing these challenges proactively, all while maintaining our very strong capital position. This has enabled us to take advantage of attractive market conditions at the January renewals while continuing our commitment to our ordinary dividend."

Christian Mumenthaler
Group Chief Executive Officer

Group results

Swiss Re reported a net income of USD 472 million for 2022, targets more than USD 3 billion for 2023.

Overview
Swiss Re reported a net income of USD 472 million for the full-year 2022, compared with a net income of USD 1.4 billion for 2021. Four main drivers impacted results in 2022: economic inflation, mark-to-market impacts on listed equity investments, COVID-19 claims and large natural catastrophe claims above expectations.

Throughout the year, Swiss Re added USD 1.1 billion[1] in reserves to address the risk of higher claims due to economic inflation across the property and casualty businesses. This included reserves for the current and prior years of USD 1.0 billion in Property & Casualty Reinsurance (P&C Re) and USD 0.1 billion in Corporate Solutions. These reserves, booked as incurred but not reported claims, position Swiss Re better for the future in light of the elevated economic inflation rates around the world.

Furthermore, rising interest rates are already helping compensate for the inflation impact through higher contributions from our fixed-income portfolio, which increased by USD 270 million[2] in 2022, although the full benefit of higher yields will materialise only gradually.

Swiss Re's Life & Health Reinsurance (L&H Re) business continued to be impacted by significant COVID-19 claims, especially at the beginning of 2022, amounting to USD 0.6 billion for the year. At the same time, large natural catastrophe claims in P&C Re amounted to USD 2.7 billion[3], coming in USD 0.5 billion above expectations, net of favourable prior-year development.

Finally, financial market volatility impacted the Group's investment results, with approximately USD 0.6 billion of mark-to-market losses, net of hedges, in listed equities, private equity and principal investments in 2022. The fact that the impact was not more negative is due to a successful hedging strategy throughout the year.

Despite these challenges, Swiss Re's capital position remained very strong, with the Group Swiss Solvency Test (SST) ratio at 294% as of 1 January 2023. Based on Swiss Re's very strong capital position, the Board of Directors will propose a dividend of USD 6.40 per share to the Annual General Meeting (AGM).

[1] This includes prior-year and current-year reserves in the form of IBNRs.
[2] Includes fixed income securities, short-term investments, and cash equivalents.
[3] Net of reinstatement premiums of USD 0.2 billion.

Shareholders' equity for the Group, excluding non-controlling interests, decreased to USD 12.7 billion as of 31 December 2022, compared with USD 23.6 billion at the end of December 2021. This reflected unrealised losses on fixed income securities of USD 9.7 billion and a payment to shareholders of USD 1.8 billion for the 2021 ordinary dividend, partially offset by the net income for 2022.

The Group's return on equity (ROE) was 2.6% for 2022, compared with 5.7% for the prior year. Earnings per share for 2022 were USD 1.63 or CHF 1.63, down from USD 4.97 or CHF 4.52 for 2021. Book value per share stood at USD 43.94 or CHF 40.65 at the end of 2022, compared with USD 81.56 or CHF 74.30 at the end of 2021. Book value per share is based on shareholders' equity and excludes non-controlling interests.

Business Performance
P&C Re reported a net income of USD 312 million in 2022, compared with a net income of USD 2.2 billion in 2021. The full-year result was negatively impacted by higher-than-expected economic inflation and large natural catastrophe claims above expectations, mainly from Hurricane Ian, floods in Australia and South Africa, hailstorms in France, winter storms in Europe and the US, as well as a series of other smaller events.

The P&C Re combined ratio for 2022 was 102.4%, compared with 97.1% in 2021.

L&H Re reported a net income of USD 416 million for 2022, compared with a net loss of USD 478 million in the previous year. L&H Re's fourth-quarter net income reached USD 0.2 billion for the third consecutive quarter, thereby ensuring that the full-year net income target of approximately USD 300 million could be exceeded. COVID-19-related claims decreased to USD 588 million in 2022 from almost USD 2 billion in 2021.

Corporate Solutions reported a net income of USD 486 million in 2022, compared with a net income of USD 578 million in 2021. The resilient result reflects a robust underlying business performance and strong new business growth in selected focus portfolios. The result was impacted by elevated large man-made loss activity including impacts related to the war in Ukraine, significantly less favourable prior-year development and additional reserves for inflation.

Corporate Solutions' combined ratio was 93.1% for the full year, outperforming the target of less than 95% for 2022.

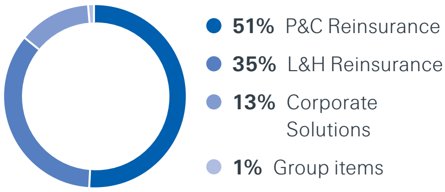
Premiums
Net premiums earned and fee income for the Group rose 0.9% to USD 43.1 billion in 2022, compared with 2021. Growth was negatively affected by adverse foreign exchange developments, while at stable foreign exchange rates, the increase amounted to 5.3%. Gross premiums written increased by 2.6% to USD 47.9 billion in 2022.

P&C Re's net premiums earned increased by 0.5% to USD 22.0 billion, supported by volume growth and price increases. At stable foreign exchange rates, premiums earned increased by 4.1%.

L&H Re's net premiums earned and fee income were largely unchanged at USD 15.0 billion, compared with the prior year. At stable foreign exchange rates, premiums earned and fee income increased by 5.1%, driven by growth across all regions.

Corporate Solutions' net premiums earned increased by 2.6% to USD 5.5 billion, driven by new business growth in selected focus portfolios along with the continuous earn-through of previously realised rate increases. At constant exchange rates, net premiums earned increased by 7.6% year on year.

Net premiums and fees earned by business segment, 2022
Total: USD 43.1 billion



2.9
Non-participating net investment income in USD billion, 2022
(2021: USD 3.4 billion)

2.0%
Group return on investments, 2022
(2021: 3.2%)

iptiQ and Alternative Capital Partners
iptiQ continued its growth momentum in 2022, with gross premiums written of USD 851 million, 17.7% higher than in 2021. At stable foreign exchange rates, gross premiums written increased by 27.8%. All markets contributed to the positive development. In addition to the top-line growth, iptiQ achieved USD 52 million adjusted gross income in 2022, a 21.2% increase compared with USD 43 million in 2021.

iptiQ's earnings before interest and tax (EBIT) for 2022 were USD –362 million. The increase in this figure from USD –278 million for 2021 represents continued investments into business growth and definitive, one-off actions taken to position iptiQ strongly to achieve its committed 2025 break even target.

Alternative Capital Partners' activities generated USD 116 million in fee and commission revenues in 2022, compared with USD 85 million in 2021. These revenues are reported under acquisition costs and under other revenues.

Investment results
The Group's non-participating investment portfolio decreased to USD 105.7 billion at the end of 2022 from USD 121.2 billion at the end of 2021, reflecting the impact of rising interest rates as well as widening credit spreads.

The return on investments (ROI) was 2.0% for 2022, compared with 3.2% in 2021. The investment result benefitted from an increase in recurring income, although it reflects the decline in global equity markets and the associated mark-to-market adjustments.

The Group's non-participating net investment income was USD 2.9 billion in 2022, compared with USD 3.4 billion in 2021, reflecting lower private equity valuations, partially offset by the increase in the recurring income yield.

The Group's recurring income yield was 2.6% in 2022, compared with 2.2% in 2021, benefitting from targeted reinvestments in the rising interest rate environment. The fixed income reinvestment yield significantly increased to 5.1% in the fourth quarter of 2022.

The Group reported non-participating net realised losses of USD 3 million for 2022, compared with gains of USD 537 million in 2021, reflecting equity mark-to-market losses.

Expenses
Acquisition costs decreased from USD 8.2 billion in 2021 to USD 7.8 billion in 2022, mainly due to a recapture in L&H Re and favourable foreign exchange developments.

Operating expenses declined slightly to USD 3.4 billion in 2022, compared with USD 3.5 billion in 2021. Interest expenses were stable at USD 570 million in 2022, compared with USD 571 million in 2021.

The Group reported a tax charge of USD 171 million on a pre-tax income of USD 651 million for 2022, compared with a tax charge of USD 394 million on a pre-tax income of USD 1.8 billion for 2021. This translates into an effective tax rate in the current and prior-year reporting periods of 26.3% and 21.5%, respectively. The tax rate in 2022 was driven by profits earned in higher-tax jurisdictions, tax charges from non-deductible expenses, increases in 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.

Financial targets and outlook
For 2023, the Group targets a net income of more than USD 3 billion, supported by attractive market conditions, an expected decline in COVID-19 claims, higher interest rates and cost discipline. Swiss Re aims to maintain its very strong capitalisation in 2023, with a Group SST ratio materially above the 200–250% target range, given the level of geopolitical and macroeconomic uncertainty. The Group also confirms its multi-year targets of 10% annual growth in economic net worth (ENW) per share and 14% return on equity[4] in 2024.

P&C Re will move away from its normalisation approach to target a reported combined ratio of less than 95% for 2023; L&H Re will aim for a net income of approximately USD 900 million; and Corporate Solutions will target a reported combined ratio of less than 94%.

[4] US GAAP ROE target announced in February 2022, which was based on an expected shareholders' equity higher than the year-end 2021 amount of USD 23.6 billion.

"In a challenging year for the reinsurance industry, our client franchise and balance sheet have remained strong. Our portfolio quality continues to improve and has further benefitted from a strong 1 January 2023 renewals result."

Moses Ojeisekhoba
CEO Reinsurance

Reinsurance

Property & Casualty Reinsurance's (P&C Re) result was supported by strong fourth-quarter net income. Life & Health Reinsurance (L&H Re) exceeded its full-year net income target.

Strategy and priorities
2022 was a year of unprecedented geopolitical and macroeconomic challenges marked by supply chain disruptions and high inflation, a prolonged pandemic and numerous large natural catastrophes. Thanks to a resilient balance sheet and a diversified business model, the Reinsurance Business Unit stood firm and was able to support its clients.

P&C Re's net income of USD 595 million in the fourth quarter of 2022 supported a full-year net income of USD 312 million. The full-year result was negatively impacted by higher-than-expected economic inflation, for which Swiss Re set up reserves of USD 1.0 billion[1]. P&C Re's full-year reported combined ratio of 102.4% reflected large natural catastrophe claims amounting to USD 2.7 billion[2], mainly from Hurricane Ian, floods in Australia and South Africa, hailstorms in France, winter storms in Europe and the US, as well as a series of other smaller events.

The underlying portfolio quality improved significantly in 2022 and at the 1 January 2023 renewals, driven by reductions of peak exposures in casualty, shifting property natural catastophe business away from frequency losses, and strengthening contractual terms and conditions.

L&H Re delivered a net income of USD 416 million, above its 2022 target of approximately USD 300 million. COVID-19-related claims decreased to USD 588 million in 2022 from almost USD 2 billion in 2021. L&H Re saw consistently positive results over the rest of 2022. In addition, the L&H Re result was supported by large transactions, especially in the Americas.

Strong client franchise
Swiss Re's reinsurance business benefits from global scale, diversified products and a strong client franchise built around three proven pillars: core, transactions and solutions.

[1] This includes prior-year and current-year reserves in the form of IBNRs.
[2] Net of reinstatement premiums of USD 0.2 billion.

In P&C Re's core risk transfer business, a large part of the reinsurance capacity is focused on natural catastrophe business. This is a business where Swiss Re has proven expertise to understand risks, such as climate change and urbanisation, and to factor these into pricing. In the core business, P&C Re also continues to build on its deep, global expertise in casualty and specialty lines.

On the L&H Re side, post-pandemic there is an elevated need for mortality products, while high life expectancies globally require more solutions for post-retirement financial protection. Along with biometric risk, L&H Re will also focus on meeting clients' needs by providing solutions for hedgeable financial risks.

Across both P&C Re and L&H Re, the transactions teams give clients access to customised reinsurance structures. These bespoke structures support clients' specific objectives around growth, capital management and portfolio rebalancing. The demand for these tailored offerings has increased as clients have sought certainty in a volatile market environment.

In 2022, Reinsurance established a standalone Solutions division to help new and existing clients enhance their business across the insurance value chain.

Reinsurance's solutions offerings include the award-winning automated underwriting system Magnum, the CatNet® suite and the Rapid Damage Assessment (RDA) solution, which improved Swiss Re's clients' readiness and response to Hurricane Ian.

Outlook and targets
Swiss Re's Reinsurance Business Unit is well-positioned to capitalise on a favourable outlook for 2023.

In a hardening market, P&C Re achieved strong results in the 1 January 2023 renewals. Overall, P&C Re achieved a price increase of 18% in this renewal round, with improved rates in all lines of business. This more than offset higher loss assumptions of 13%, which reflect a prudent view on inflation and loss model updates.

P&C Re will move away from its normalisation approach to target a reported combined ratio of less than 95% for 2023. For L&H Re, the impact of COVID-19 decreased over the second half of 2022, allowing for a more favourable outlook. The ongoing profitabilty is expected to continue in 2023. L&H Re will aim for a net income of approximately USD 900 million in 2023.

As announced on 2 February 2023, Reinsurance will streamline its organisational structure. The current Reinsurance Business Unit will be split into P&C Re and L&H Re, with each having full authority over the respective underwriting and claims management processes. The reorganisation, which aims to simplify structures and improve efficiency and client experience, will be effective 3 April 2023, subject to regulatory approvals.

Property & Casualty Reinsurance (P&C Re)

P&C Re reported a net income of USD 312 million in the full year 2022, compared with a net income of USD 2.2 billion in the same period in 2021. The underwriting performance was impacted by economic inflation and elevated natural catastrophe losses.

Large natural catastrophe losses amounted to USD 2.7 billion[1], from Hurricane Ian, floods in Australia and South Africa, hailstorms in France, winter storms in Europe and the US, as well as a series of other smaller events. Large man-made losses amounted to USD 247 million for 2022, including reserves related to the Ukraine war of USD 187 million.

The prior-year development was unfavourable, driven by economic inflation as well as liability and motor reserve strengthening, partly offset by positive reserve development in the broader portfolio.

The net operating margin[2] was 3.2%, compared with 12.2% in 2021. This was a result of lower underwriting and investment contributions, whereas operating expenses slightly decreased.

The investment portfolio performance led to return on investments (ROI) of 1.4% for the full year, reflecting negative mark-to-market impacts on equities as well as a lower contribution from private equity investments.

Premiums

Net premiums earned increased by 0.5% to USD 22.0 billion. At stable foreign exchange rates, premiums earned would have increased by 4.1%, supported by volume growth and price increases.

Gross premiums written increased by 2.6% to USD 23.8 billion in 2022.

Property & Casualty Reinsurance results

USD millions	2021	2022	Change in %
Revenues			
Gross premiums written	23 246	23 848	3
Net premiums written	22 381	22 826	2
Change in unearned premiums	–455	–798	75
Premiums earned	21 926	**22 028**	–
Net investment income	1 756	1 355	–23
Net realised investment gains/losses	544	–117	–
Other revenues	20	27	35
Total revenues	24 246	**23 293**	–4
Expenses			
Claims and claim adjustment expenses	–14 773	–16 344	11
Acquisition costs	–5 359	–5 106	–5
Operating expenses	–1 167	–1 106	–5
Total expenses before interest expenses	–21 299	**–22 556**	6
Income before interest and income tax expense	2 947	**737**	–75
Interest expenses	–292	–372	27
Income before income tax expense	2 655	**365**	–86
Income tax expense/benefit	–438	–53	–88
Net income before attribution of non-controlling interests	2 217	**312**	–86
Income/loss attributable to non-controlling interests	–1		–
Net income attributable to common shareholders	2 216	**312**	–86
Claims ratio in %	67.3	74.2	
Expense ratio in %	29.8	28.2	
Combined ratio in %	97.1	102.4	

Combined ratio

The combined ratio for 2022 was 102.4%, compared with 97.1% in 2021. This reflected higher-than-expected inflation, elevated large natural catastrophe losses and reserves related to the Ukraine war.

The normalised combined ratio of 96.9% in 2022 was above the target of less than 94%, mostly due to the impacts of economic inflation.

Administrative expense ratio[3]

The ratio decreased to 5.0% in 2022 from 5.3% in 2021 due to lower expenses while premiums earned remained broadly unchanged.

Lines of business

The property combined ratio increased to 98.7% for 2022 from 92.2% in 2021, driven by elevated large natural catastrophe losses and inflation updates.

[1] Net of reinstatement premiums of USD 0.2 billion.
[2] Net operating margin = EBIT / total revenues.
[3] Operating expenses divided by premiums earned.

The casualty combined ratio rose to 109.6% for 2022, compared with 104.3% in 2021, impacted by inflation updates, continued increase of liability reserves and a deterioration in motor.

The specialty combined ratio stood at 93.2% for 2022, an increase from 89.4% in 2021, as favourable experience and positive prior-year development were dampened by reserves related to the Ukraine war and inflation updates.

Investment result
ROI was 1.4% for 2022, compared with 3.5% in 2021, reflecting a decrease in the investment result of USD 1.2 billion.

Net investment income decreased by USD 475 million to USD 1.1 billion in 2022 compared with the prior year, driven mainly by the impact of lower private equity valuations.

Net realised losses were USD 205 million in 2022, compared with net realised gains of USD 551 million for 2021. The decrease was mainly due to market value losses on equity securities as well as losses from sales within the fixed income portfolio.

Insurance-related investment results and foreign exchange gains/losses are not included in the figures above.

Shareholders' equity
Shareholders' equity decreased to USD 5.9 billion as of 31 December 2022 compared with USD 10.6 billion as of 31 December 2021, due to lower net income and an increase of net change in unrealised losses due to increasing interest rates.

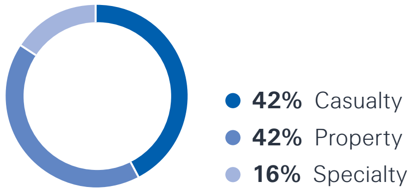
Outlook
For property lines, natural catastrophe business has seen significant price increases in a hardening market. P&C Re will continue to leverage these attractive market conditions to improve its absolute margin, increase attachment points and grow in line with its risk appetite throughout 2023. Low-attaching structures are generally less attractive for Swiss Re due to the increased frequency of secondary perils.

The casualty reinsurance portfolio continues to focus on profitability and selective growth across all regions, while navigating a marketplace where demand and supply are in a fragile balance. Absolute margin has improved across the casualty portfolio, driven by disciplined growth, yield improvements, and prudent terms and conditions. In most sub-portfolios, loss trends are offset by rate improvements. Demand for transactions and solutions continues to provide a solid pipeline of new opportunities which meet Reinsurance's return requirements.

In specialty lines, there is positive momentum, and Swiss Re continues to capitalise on its leading franchise in these lines with selected growth in engineering. In other lines, Swiss Re will mainly focus on profitability, and will carefully manage accumulation of systemic risks such as war and recession.

Following the successful 1 January 2023 renewals and continued positive market momentum, P&C Re targets a reported combined ratio of less than 95% for 2023.

Premiums earned by line of business, 2022
Total: USD 22.0 billion



Life & Health Reinsurance (L&H Re)

L&H Re reported a net income of USD 416 million for 2022, compared with a net loss of USD 478 million in the previous year, and above the target net income of approximately USD 300 million. This result was supported by positive contributions from the Americas, partially offset by adverse experience in Asia.

COVID-19-related claims decreased to USD 588 million from almost USD 2.0 billion in 2021, as excess mortality in the US trended down.

Premiums

Net premiums earned and fee income remained stable at USD 15.0 billion. Calculated at stable foreign exchange rates, net premiums earned and fee income would have increased by 5.1%, driven by growth across all regions.

Gross premiums written in 2022 decreased slightly by USD 0.1 billion, or 0.8% to USD 16.0 billion. At stable foreign exchange rates, they would have increased by 4.2%.

Net operating margin[1]

The net operating margin was 4.3% in 2022, compared with a margin of –1.8% in the prior year. Both years included material COVID-19-related losses, however, to a significantly lower extent in 2022.

Management expense ratio

The management expense ratio was 5.1%, compared with 5.3% in the prior year. The decrease was primarily driven by lower operating expenses.

Life & Health Reinsurance results

USD millions	2021	2022	Change in %
Revenues			
Gross premiums written	16 119	15 986	–1
Net premiums written	14 632	14 476	–1
Change in unearned premiums	104	258	148
Premiums earned	14 736	**14 734**	–
Fee income from policyholders	259	250	–3
Net investment income – non-participating business	1 409	1 431	2
Net realised investment gains/losses – non-participating business	338	187	–45
Net investment result – unit-linked	63	–43	–
Other revenues	3	1	–67
Total revenues	16 808	**16 560**	–1
Expenses			
Life and health benefits	–13 744	–12 948	–6
Return credited to policyholders	–431	–280	–35
Acquisition costs	–2 056	–1 772	–14
Operating expenses	–876	–840	–4
Total expenses before interest expenses	–17 107	**–15 840**	–7
Income/loss before interest and income tax expense	–299	**720**	–
Interest expenses	–273	–233	–15
Income/loss before income tax expense	–572	**487**	–
Income tax expense	94	–71	–
Net income/loss attributable to common shareholders	–478	**416**	–
Management expense ratio in %	5.3	5.1	
Net operating margin in %	–1.8	4.3	

Lines of business

Earnings before interest and income tax expenses (EBIT) for the life business increased to USD 285 million in 2022 from USD –1.1 billion in 2021. This year's result benefitted from positive contributions from the Americas, whereas mortality experience was slightly negative from Asia and EMEA, and reflected significantly lower impact from COVID-19-related claims, as excess mortality in the US trended down.

EBIT for the health business was USD 304 million in 2022, compared with USD 412 million in the prior year. The 2022 underwriting result reflected a mixture of adverse experience and assumption updates, primarily in Asia across various countries, whereas last year benefitted from a strong performance.

[1] Net operating margin = EBIT / (total revenues – net investment result unit-linked).

Investment result
Return on investments (ROI) was 3.2% in 2022, compared with 3.4% in 2021, with a decrease in the investment result of USD 204 million.

Net investment income increased by USD 5 million to USD 1.0 billion for 2022. The recurring income yield was 3.2% in 2022, compared with 2.8% in 2021, mainly reflecting the impact of rising interest rates and credit spreads widening.

Net realised gains were USD 105 million for 2022, compared with USD 314 million in 2021. The decrease was driven by market value losses on equity securities.

Insurance-related investment results as well as foreign exchange gains/losses are not included in the figures above.

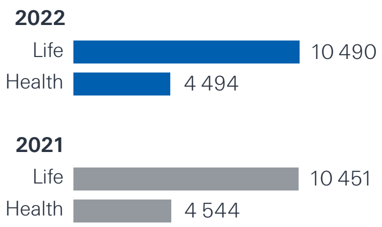
Shareholders' equity
Shareholders' equity decreased to USD 2.6 billion as of 31 December 2022, compared with USD 7.3 billion as of 31 December 2021, driven by higher unrealised losses due to increasing interest rates.

Outlook
L&H Re has a more positive outlook for 2023, based on the expected decline in COVID-19 claims and the benefit of higher interest rates on investment income. L&H Re will target a net income of approximately USD 900 million for 2023.

The increase in life and health treaty reinsurance new business continues to emerge, driven by increased customer awareness, with greater growth expected in emerging markets. Cession rates on core business are expected to remain broadly stable in major markets, while mortality premiums for new business or in-force transactions are increasing as a response to COVID-19-related losses.

Recent increases in interest rates benefit the business in the long term. L&H Re sees a continued strong focus from clients on capital, risk and balance sheet optimisation in mature markets, leading to ongoing opportunities for large transactions. L&H Re also sees opportunities to respond to the expanding need for health protection, driven by ageing societies, and is applying its risk knowledge to help reduce the protection gap in all regions.

Premiums earned and fee income by line of business, 2022
Total: USD 15.0 billion



"Corporate Solutions outperformed its target in 2022 and has become a sustainable profit contributor to the Swiss Re Group."

Andreas Berger
CEO Corporate Solutions

Corporate Solutions

Corporate Solutions delivers resilient results, outperforming its 2022 combined ratio target

Strategy and priorities
Corporate Solutions reported a net income of USD 486 million for 2022 and delivered a combined ratio of 93.1%, outperforming its goal of less than 95% for the year. The improved resilience of the business is the result of disciplined underwriting, a remediated portfolio and restored reserving adequacy, which forms the basis for sustainable future growth.

A key strategic priority for Corporate Solutions is to improve the cycle resilience of the underwriting portfolio. This is achieved through increased diversification into non-correlated and less volatile risk classes outside of large corporate P&C segments, paired with growth in non-property lines to counterbalance the strong relative weight in property lines. The resilience of Corporate Solutions earnings is further supported by a relentless focus on costs and productivity, and increasing economies of scale across sub-portfolios and regions.

A second key priority of Corporate Solutions' strategy is building propositions for corporates, such as the administration of international programs, tailor-made solutions for captives, or risk data services. These propositions offer attractive cycle-independent growth opportunities, increase stickiness and differentiation with customers, and diversify Corporate Solutions' earnings base into fee-based sources of income.

Performance
Corporate Solutions has become a sustainable profit contributor to the Group. The Business Unit reported a net income of USD 486 million for 2022 with a combined ratio of 93.1%, compared with a net income of USD 578 million and a combined ratio of 90.6% for 2021. The resilient result reflects a robust underlying business performance and strong new business growth in selected focus portfolios. This enabled the Business Unit to absorb lower income from investment results, reserves related to the Ukraine war, and significantly less favourable prior-year development compared with 2021.

Total large losses in 2022 were of a similar magnitude to 2021. Large man-made losses of USD 389 million were higher than in the prior year, reflecting USD 147 million of reserves related to the Ukraine war, while large natural catastrophe losses were lower, amounting to USD 229 million for the period.

The Business Unit improved its resilience to future claims inflation, with USD 0.1 billion in additional reserves[1]. The net operating margin[2] was 11.0% for 2022, compared with 13.5% for the prior-year period.

Premiums
Gross premiums written increased by 9.4% to USD 8.2 billion in 2022, driven by stable price momentum and new business growth in selected focus portfolios.

Net premiums earned increased by 2.6% to USD 5.5 billion, benefitting from new business growth in selected focus portfolios along with continuous earn-through of previously realised rate increases.

At stable foreign exchange rates and excluding the elipsLife business sold mid-year, net premiums earned increased 14.8%.

Combined ratio
Corporate Solutions' combined ratio was 93.1% for the full year, outperforming the target of less than 95% for 2022. The improvement illustrates enhanced resilience due to the strong quality of the underlying portfolio and continuous earn-through of previously realised rate increases. This enabled the Business Unit to absorb additional assumption updates, including for economic inflation, reserves related to the Ukraine war and significantly less favourable prior-year development compared with 2021, which benefitted from low claims activity in 2020.

Corporate Solutions successfully closed the sale of Elips Life AG to Swiss Life International on 1 July 2022. Excluding the divested business, the Business Unit's pro forma[3] combined ratio was 91.9% in 2022.

Lines of business
The property combined ratio for 2022 improved to 72.9% from 80.9% in the prior-year period. The improvement benefitted from profitable new business growth along with continuous earn-through of previously realised rate increases and lower-than-expected claims activity, absorbing less favourable prior-year development.

The casualty combined ratio increased to 108.5% in 2022, compared with 103.6% in 2021. This was mainly a result of elevated prior-year man-made losses on business written before the execution of the transformation agenda in 2019 as well as reserve strengthening for improved resilience to future claims inflation.

The specialty combined ratio for 2022 deteriorated by 19.9 percentage points to 96.2%, reflecting the reserves related to the war in Ukraine.

elipsLife's combined ratio deteriorated by 1.7 percentage points to 101.3% for 2022, driven by adverse prior-year development.

Investment result
The return on investments (ROI) was 1.4% in 2022, compared with 2.0% in 2021, with a decrease in the investment result of USD 58 million. Net investment income increased by USD 92 million to USD 228 million for 2022 due to a higher contribution from fixed income, reflecting higher reinvestment yields. Net realised losses were USD 61 million in 2022, compared with USD 89 million gains in 2021, reflecting market value losses on equity securities as well as losses from sales of fixed income securities.

Insurance-related derivative results and foreign exchange gains/losses are not included in the investment figures.

Corporate Solutions offers insurance protection against weather perils and other risks, which is accounted for as derivatives. Insurance-related net realised gains were USD 84 million in 2022, compared with gains of USD 20 million in 2021, largely driven by strong demand for weather products and current volatility in the energy market. The portfolio further benefitted from deals underwritten in Europe and the US at attractive margins.

Shareholders' equity
Shareholders' equity decreased to USD 2.1 billion at the end of 2022 due to unrealised investment losses and the distribution of dividends, partially offset by the net income for the period.

Outlook
Corporate Solutions will target a reported combined ratio of less than 94% in 2023.

Corporate Solutions' future path is centered around capturing profitable growth while leveraging distinctive competitive strengths with a focused portfolio strategy that will build resilience in all market cycles.

The significant risk-adjusted price gains experienced in the commercial insurance market in 2020 and 2021 continued at low levels during 2022. Corporate Solutions expects rate hardening to regain momentum during 2023 as the global insurance industry faces multiple pressures. High inflation and large losses from both Hurricane Ian and the war in Ukraine will continue to place upward pressure on rates to compensate for increased cost of capital. By contrast, as a result of declining market capacity, there is the possibility of an increase in retention layers, which together with a weakened macroeconomic outlook could reduce real premium growth.

Corporate Solutions results

USD millions	2021	**2022**	Change in %
Revenues			
Gross premiums written	7 492	8 198	9
Net premiums written	5 717	6 124	7
Change in unearned premiums	–374	–642	72
Premiums earned	5 343	**5 482**	3
Net investment income	121	223	84
Net realised investment gains/losses	115	29	–75
Other revenues	12	3	–75
Total revenues	5 591	**5 737**	3
Expenses			
Claims and claim adjustment expenses	–2 374	–2 889	22
Life and health benefits	–924	–675	–27
Acquisition costs	–690	–748	8
Operating expenses	–851	–793	–7
Total expenses before interest expenses	–4 839	**–5 105**	5
Income before interest and income tax expense	752	**632**	–16
Interest expenses	–26	–24	–8
Income before income tax expense	726	**608**	–16
Income tax expense	–149	–114	–23
Net income before attribution of non-controlling interests	577	**494**	–14
Income/loss attributable to non-controlling interests	1	–8	–
Net income attributable to common shareholders	578	**486**	–16
Claims ratio in %	61.8	65.0	
Expense ratio in %	28.8	28.1	
Combined ratio in %	90.6	93.1	

[1] This includes prior-year and current-year reserves in the form of IBNRs.
[2] Net operating margin = EBIT / total revenues.
[3] Pro forma Corporate Solutions combined ratio of 91.9% excludes all Elips Life AG business sold to Swiss Life International for the first half of 2022 and includes the medical business of Elips Versicherungen AG in Ireland, which remained with Swiss Re.

"Swiss Re delivered a solid investment performance in a challenging year for financial markets."

Guido Fürer
Group Chief Investment Officer

Group Investments

Financial markets and investment strategy
2022 turned out to be a challenging year for financial markets, with both equity and fixed income assets delivering negative performance for the year. Historically, this has only happened five times in the US markets over the past 100 years.

The dominant force behind the bear market environment has been persistent inflation across the globe that surged to a 40-year high on the back of post-pandemic catch-up effects, prior monetary and fiscal stimulus and surging energy prices following Russia's invasion of Ukraine. This development forced central banks across the advanced economies to significantly tighten monetary policy at a fast pace, which has in turn led to increasing recession fears, especially in Europe, which was also facing looming energy impasses amid depressed Russian gas inflows.

In terms of key market developments, global equities started to fall early in January and had entered a bear market by June amid central bank hawkishness and recession concerns. They were still around 20% down at year end, despite some tailwinds in the fourth quarter as central banks started to slow their tightening campaigns, gas prices declined thanks to mild weather in Europe, and China began to ease its stringent pandemic management.

Monetary tightening and high inflation also prompted extraordinary bond market volatility in 2022 as sovereign bond yields surged across the advanced economies. For example, the US 10-year Treasury yield peaked at 4.24% in October, the highest level since 2008, and was still up more than 2% for the year. Short-end rates rose even faster, causing the US yield curve to stay inverted from June onwards. European sovereign yields also rose notably, with the era of negative yielding debt coming to an end. Finally, spreads on investment grade corporate bonds widened to near-recessionary levels before tightening back somewhat towards the end of the year as risk sentiment improved.

Swiss Re's investment performance was solid, even though the financial market environment weighed on both listed equity and fixed income assets.

The performance benefitted from an up-in-quality bias, and our increased strategic allocation to private markets also proved valuable. Meanwhile, the increase in global interest rates has also allowed us to redeploy some capital at attractive all-in yields that will help strengthen the portfolio's income resilience.

Investment result
The investment result was driven by recurring income, partially offset by the impact of the decline in global equity markets and the associated mark-to-market adjustments. The Group's non-participating investment portfolio decreased to USD 105.7 billion at the end of 2022 from USD 121.1 billion at the end of 2021, reflecting the impact of rising interest rates and credit spreads widening. The return on investments (ROI) was 2.0% for 2022, compared with 3.2% for 2021.

The Group manages its investment portfolio with a focus on maximising recurring income. The Group's non-participating net investment income was USD 2.0 billion in 2022, compared with USD 3.4 billion in 2021. The decrease was mainly driven by lower equity valuations, which was partially offset by higher recurring income. The Group's recurring income yield was 2.6% in 2022, compared with 2.2% in 2021, reflecting reinvestment into higher yields.

The Group reported non-participating net realised losses of USD 3 million in 2022, compared with gains of USD 537 million in 2021. The decrease is mainly due to market value losses on equity investments.

Outlook
Swiss Re expects another challenging year for the global economy and financial markets in 2023. Global economic growth is forecast to slow from last year, while inflation is expected to stay above historic averages even though price increases have continued to decline in recent months. We thus entered the year with a cautious outlook for global financial markets.

Swiss Re's investment portfolio continues to remain well-diversified across asset classes and regions, with a strong focus on quality. Subject to market developments, Swiss Re aims to gradually increase credit exposure to lock in attractive spreads and yields. Private markets will remain an important pillar of the portfolio strategy and positioning, with deployment to occur as opportunities arise.

Swiss Re will also continue its strong focus on environmental, social and governance (ESG) considerations across the entire investment process to help reach its Group-wide net-zero emissions target for 2050.

Finally, the expected market volatility will again require Swiss Re to stay nimble and flexible in its investment positioning throughout the year.

2.0
Net investment income in USD billions, 2022
(2021: USD 3.4 billion)

2.0%
Group return on investments 2022
(2021: 3.2%)

2.6%
Group recurring income yield 2022
(2021: 2.2%)

Share performance

Swiss Re shares
Swiss Re had a market capitalisation of CHF 27.5 billion on 31 December 2022, with 317.5 million shares outstanding, of which 289 million were entitled to dividends. Swiss Re shares are listed in accordance with the International Reporting Standard on the SIX Swiss Exchange (SIX) and are traded under the ticker symbol SREN.

American Depositary Receipts (ADR)
In the US, Swiss Re maintains an ADR level I programme (OTC symbol SSREY).

Share price performance
Swiss Re shares opened the year at CHF 90.26. An intra-day high of CHF 102.43 was achieved on 3 February 2022. On 12 October 2022, the shares experienced an intra-day low of CHF 68.16. The year-end share price was CHF 86.48.

During 2022, the total shareholder return (in USD) of the STOXX Europe 600 Insurance index (SXIP) was –0.1% and of the broader index of Swiss blue chips (SMI) –15.0%. The Swiss Re total shareholder return for 2022 was 1.8% (in USD).

Share trading
The average on-exchange daily trading volume for 2022 was 1.1 million shares. Trading volume peaked at 4.9 million shares on 25 February 2022.

Swiss Re's dividend policy
Swiss Re's dividend policy is a central element of Swiss Re's capital management priorities.

The Group aims to ensure superior capitalisation at all times and to maximise financial flexibility, growing the ordinary dividend with long-term earnings and, at a minimum, maintaining it. Swiss Re will also deploy capital for business growth where it meets its strategy and profitability requirements and repatriate excess capital to shareholders.

As announced in April 2022, from the dividend payment in 2023, dividends will be declared in USD to align with Swiss Re's reporting currency. Although declared in USD, shareholders will receive the 2023 dividend payment in CHF converted from USD.

Dividends are typically paid out of current earnings and Swiss Re pays its dividend annually. Shares are traded ex-dividend two working days after the Annual General Meeting (AGM). Dividend payment is typically two working days after the ex-dividend date. The corresponding dates in 2022 were 19 and 21 April.

Dividends
The Board of Directors proposes an ordinary dividend of USD 6.40 per share for 2022. The dividend paid for 2022 will be subject to 35% Swiss withholding tax.

Public share buyback programme
In line with the Group's capital management priorities, the Board has decided not to seek approval at the AGM 2023 for a new share buyback programme.
www.swissre.com/investors/shares/share_buyback/

Index representation
At the time of publication (16 March 2023), Swiss Re is represented in various relevant Swiss, European and global indices, including the SMI and the SXIP. Swiss Re is also a member of various sustainability indices, including the Dow Jones Sustainability World and Europe (as of 9 December 2022), FTSE4Good Index Series (as of 7 June 2022), Euronext Vigeo Europe 120 Index (as of 31 December 2022), Solactive Europe Corporate Responsibility Index (19 September 2022), Bloomberg Gender Equality Index (as of 31 January 2023), MSCI World ESG Leaders and MSCI World Socially Responsible Index (as of 26 December 2022).

Information for investors
More information is available on Swiss Re's website: www.swissre.com/investors

General information on Swiss Re shares

Identification numbers	Share	ADR
Swiss Security Number (Valorennummer)	12688156	–
ISIN (International Securities Identification Number)	CH0126881561	US8708861088

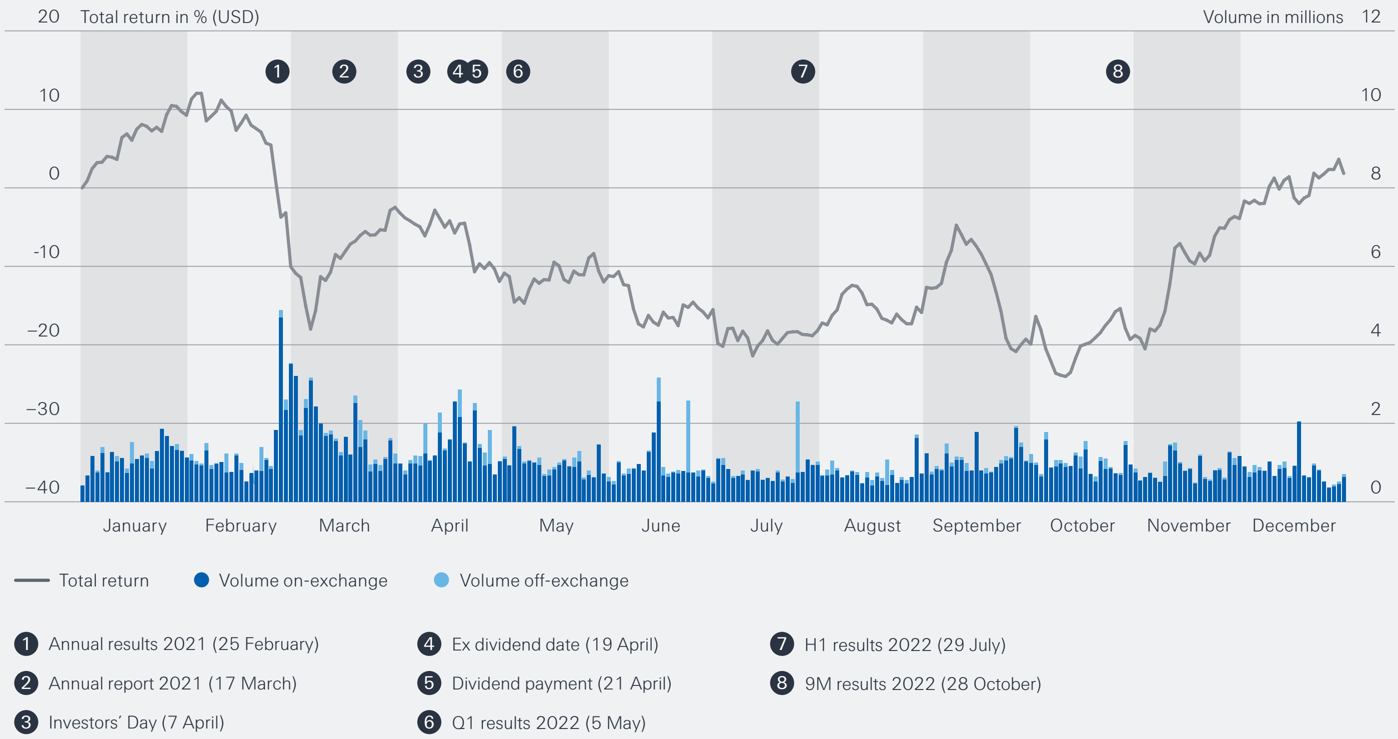
Ticker symbols	Bloomberg	Telekurs	Reuters
Share	SREN:SW	SREN	SREN.SW
ADR[1]	SSREY:US	SSREY	SSREY.PK

[1] Swiss Re's ADR are not listed but traded over the counter; four ADRs correspond to one Swiss Re share.

Weighting in indices

As of 30 December 2022	Index weight (in %)
Swiss/blue chip indices	
SMI	2.34
SPI	2.11
Insurance indices	
STOXX Europe 600 Insurance	5.00
Bloomberg Europe 500 Insurance	5.23
FTSEurofirst 300 Insurance	7.45
Dow Jones Insurance Titans 30	1.98
Sustainability indices	
Dow Jones Sustainability Europe	0.68
Dow Jones Sustainability World	0.24
FTSE4Good Global	0.08
Bloomberg Gender Equality	0.23

Swiss Re total shareholder return (USD) and trading volume in 2022



Key share statistics 2017–2022

As of 31 December	2017	2018	2019	2020	2021	2022
Shares outstanding[1]	349 452 281	338 619 465	327 404 704	317 497 306	317 497 306	317 497 306
of which Treasury shares and shares reserved for corporate purposes	34 866 516[2]	38 575 324[3]	36 749 762	28 520 907	28 544 112	28 509 236
Shares entitled to dividend	314 585 765	300 044 141	290 654 942	288 976 399	288 953 194	288 988 070
CHF unless otherwise stated						
Dividend paid per share	4.85	5.00	5.60	5.90	5.90	5.90
Dividend yield[4] (in %)	5.32	5.55	5.15	7.08	6.54	6.82%
Earnings per share[5]	1.02	1.34	2.46	–2.97	4.52	1.63
Book value per share[6]	103.37	91.72	97.46	83.00	74.30	40.65
Price per share year-end	91.25	90.12	108.70	83.34	90.26	86.48
Price per share year high (intra-day)	98.50	98.80	110.45	117.05	77.26	102.43
Price per share year low (intra-day)	81.65	84.20	88.90	52.68	94.96	68.16
Daily trading volume (in CHF millions)	129	126	120	147	84	80
Market capitalisation[7] (in CHF millions)	31 888	30 516	35 589	26 460	28 657	27 457
ADR price at year-end (in USD)	23.38	22.84	28.12	23.69	24.78	23.50

[1] Nominal value of CHF 0.10 per share.
[2] Includes 6.3m shares repurchased under the share buy-back programme launched on 3 November 2017, which concluded on 16 February 2018.
[3] Includes 10.1m shares repurchased under the share buy-back programme launched on 7 May 2018, which concluded on 15 February 2019.
[4] Dividend divided by year-end share price of corresponding year.
[5] Calculated by dividing net income by the weighted average number of common shares outstanding.
[6] Based on shareholders' equity (excluding convertible perpetual capital instruments) divided by the number of external common shares entitled to dividend.
[7] Based on shares outstanding.

Economic Value Management

Swiss Re's 2022 EVM results reflect strong new business performance despite a turbulent year.

"The 2022 EVM results reflect the significant macroeconomic headwinds of the past year."

John R. Dacey
Group Chief Financial Officer

EVM performance

Despite the various challenges faced during the year, Swiss Re generated a strong new business result in 2022, emphasising the advantages of its underwriting strategy.

Economic Value Management (EVM) is Swiss Re's proprietary integrated economic valuation and steering framework, which consistently measures economic performance across all businesses.

Swiss Re reported a total contribution to economic net worth (ENW) of USD –1.6 billion in 2022, compared with USD 3.8 billion in 2021. On a risk-adjusted basis, Swiss Re reported an EVM loss of USD 4.1 billion in 2022, compared with an EVM profit of USD 2.1 billion in 2021.

–4.1

EVM profit in USD billions, 2022
(2021: USD 2.1 billion)

–5.9%

ENW per share growth
target: 10%
(2021: 10.7%)

–1.6

Total contribution to ENW in USD billions, 2022
(2021: USD 3.8 billion)

Group performance
The EVM loss of USD 4.1 billion in 2022 reflects the various challenges faced during the year, including the war in Ukraine, surging inflation, volatile financial markets and elevated natural catastrophe losses. In addition, the EVM results include the impact of updates to the internal pandemic risk model and inflation scenarios as well as L&H Re assumption updates.

The EVM profit on new business was USD 1.4 billion in 2022, consistent with the prior year. The 2022 result was driven by profitable L&H Re transactional business in the Americas as well as strong new business performance by P&C Re and Corporate Solutions, partially offset by large natural catastrophe and man-made losses as well as continued investments in the iptiQ business.

The EVM loss from previous years' business amounted to USD 4.7 billion in 2022, compared with an EVM loss of USD 205 million in 2021. The 2022 result reflects updates to the internal pandemic risk model and inflation scenarios, L&H Re assumption updates as well as the impact of reserve adjustments for inflation.

Investment activities generated an EVM loss of USD 896 million in 2022 compared with a profit of USD 872 million in 2021. The 2022 result was adversely impacted by credit spread widening and equity mark-to-market losses, partially offset by outperformance from alternative investments. The 2021 result was driven by outperformance across equities and alternative investments as well as a positive contribution from credit investments.

ENW per share growth amounted to –5.9% in 2022.

Key information

USD millions, unless otherwise stated	2021	2022	Change in %
EVM profit	2058	–4 126	n/a
Total contribution to ENW	3762	–1 579	n/a
Economic net worth (ENW)	35374	31 107	–12
Economic net worth per share in USD	122.42	107.64	–12
Economic net worth per share growth, %[1]	10.7	–5.9	
Profit margin – new business, %	3.9	4.9	
Profit margin – previous years' business, %	–0.7	–15.6	
Profit margin – investments, %	8.9	–11.6	

[1] ENW per share growth is calculated as follows: (current-year closing ENW per share + current year dividends per share) ÷ (prior-year closing ENW per share + current year opening balance sheet adjustments per share).

Business segment performance
P&C Re reported an EVM loss of USD 738 million in 2022, compared with a profit of USD 2.5 billion in 2021. The EVM profit on new business of USD 379 million in 2022 was driven by profitable new business, partially offset by large loss experience, including Hurricane Ian, flooding in Australia and South Africa, storms in Europe and winter storm Elliott. EVM loss on previous years' business amounted to USD 2.0 billion in 2022, driven by large natural catastrophe and man-made losses and adverse experience updates. In addition, the result was negatively impacted by reserve adjustments for inflation and higher capital costs resulting from inflation scenario updates. Investment activities generated an EVM profit of USD 852 million in 2022, compared with a profit of USD 1.1 billion in 2021. The 2022 result reflects the favourable impact of higher interest rates on a net short duration position and outperformance from alternative investments, partially offset by credit spread widening and equities underperformance. In comparison, the 2021 profit was driven by outperformance from alternative investments and equities as well as the favourable impact of higher interest rates on a net short duration position.

L&H Re reported an EVM loss of USD 3.3 billion in 2022 compared with a profit of USD 53 million in 2021. The EVM profit on new business of USD 1.0 billion in 2022 benefitted from transactional business in the Americas, while the EMEA and Asia results reflect lower transaction opportunities and volumes. The EVM loss on previous years' business of USD 2.8 billion reflected the adverse impact of assumption updates as well as the impact of the internal pandemic risk model update. Investment activities generated an EVM loss of USD 1.5 billion in 2022, compared with a profit of USD 213 million in 2021. The 2022 loss was driven by the adverse impact of higher interest rates on a net long duration position as well as credit spread widening. In comparison, the 2021 EVM profit was driven by a positive contribution from credit investments, partially offset by the adverse impact of higher interest rates on a net long duration position.

Corporate Solutions reported an EVM profit of USD 402 million in 2022 compared with a profit of USD 835 million in 2021. The EVM profit on new business of USD 172 million in 2022 reflects a resilient result, driven by a robust underlying business performance and strong new business growth in selected focus portfolios. This enabled Corporate Solutions to absorb additional assumption updates including reserve adjustments for inflation and a higher-than-expected claims activity, including Hurricane Ian. The EVM profit on previous years' business of USD 231 million benefitted from favourable claims experience variances, partially offset by reserve adjustments for inflation assumptions and the war in Ukraine. Investment activities generated an EVM loss of USD 1 million in 2022 compared with a profit of USD 70 million in 2021. The 2022 loss was driven by a negative equities contribution and credit spread widening, partially offset by the positive impact of higher interest rates on a net short duration position. In comparison, the 2021 profit resulted from equities outperformance and a positive credit contribution.

Group items reported an EVM loss of USD 506 million in 2022, compared with a loss of USD 1.4 billion in 2021. The EVM loss on new business of USD 160 million in 2022 was mainly driven by continued investments in the iptiQ business as well as Group overhead expenses, partially offset by trademark licence fee income and a capital cost benefit related to the variance between available capital and capital deployed. The EVM loss on previous years' business of USD 125 million mainly relates to terminating unprofitable business as well as adverse assumption updates and experience variances in iptiQ. Investment activities generated an EVM loss of USD 222 million in 2022, compared with a loss of USD 524 million in 2021. The 2022 result reflects underperformance from Principal Investments.

Business segments – key information

USD millions, unless otherwise stated	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	**Total**
2021[1]					
EVM profit	2 543	53	835	–1 374	2 058
Total contribution to ENW	3 298	599	920	–1 055	3 762
Profit margin – new business, %	3.8	7.9	7.2	n/a	3.9
Profit margin – previous years' business, %	7.4	–10.2	26.3	n/a	–0.7
Profit margin – investments, %	28.5	5.8	11.3	–32.7	8.9

USD millions, unless otherwise stated	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	**Total**
2022					
EVM profit	–738	–3 284	402	–506	–4 126
Total contribution to ENW	447	–2 063	629	–593	–1 579
Profit margin – new business, %	2.7	9.3	5.4	n/a	4.9
Profit margin – previous years' business, %	–14.1	–20.8	9.6	n/a	–15.6
Profit margin – investments, %	21.5	–58.9	–0.2	–32.0	–11.6

[1] Comparative information for 2021 has been revised to reflect the reallocation of part of Principal Investments, Admin Re US as well as certain cross-segmental loans from Group items to Reinsurance.

EVM financial information

EVM income statement

For the years ended 31 December

USD millions, unless otherwise stated	2021	2022
Underwriting result		
Gross premiums and fees	69 207	49 615
Gross premiums and fees growth rate, %	14.5	–28.3
Premiums and fees	67 104	46 914
Premiums and fees retention rate, %	97.0	94.6
Premiums and fees growth rate, %	14.4	–30.1
Claims and benefits	–44 926	–31 434
Commissions	–14 309	–8 477
Other	70	–39
Gross underwriting result – new business	**7 939**	**6 964**
Expenses	–4 067	–3 697
Net underwriting result – new business	**3 872**	**3 267**
Taxes	–742	–601
Capital costs	–1 740	–1 245
EVM profit – new business	**1 391**	**1 422**
EVM profit – previous years' business	**–205**	**–4 652**
EVM profit – underwriting	**1 186**	**–3 230**
Investment result		
Mark-to-market investment result	–150	–9 909
Benchmark investment result	2 483	9 811
Gross outperformance (underperformance)	**2 333**	**–97**
Other	118	123
Expenses	–258	–235
Net outperformance (underperformance)	**2 192**	**–210**
Taxes	–470	–5
Capital costs	–850	–681
EVM profit – investments	**872**	**–896**
EVM profit	**2 058**	**–4 126**
Cost of debt	–284	51
Release of current year capital costs	2 644	3 840
Additional taxes	–655	–1 343
Total contribution to ENW	**3 762**	**–1 579**
Profit margin – new business, %	3.9	4.9
Profit margin – previous years' business, %	–0.7	–15.6
Profit margin – investments, %	8.9	–11.6

EVM balance sheet

As of 31 December

USD millions	2021	2022
Assets		
Investments	119 488	104 906
Cash and cash equivalents	5 046	4 073
In-force business assets	330 999	261 177
Retrocession assets	29 580	25 381
Other assets	3 180	3 111
Total assets	**488 293**	**398 648**
Liabilities		
In-force business liabilities	392 822	315 344
Retrocession liabilities	24 996	21 562
Provision for capital costs	11 161	11 134
Future income tax liabilities	4 255	3 119
Debt	13 606	11 228
Other liabilities	6 078	5 154
Total liabilities	**452 919**	**367 541**
Economic net worth	**35 374**	**31 107**
Total liabilities and economic net worth	**488 293**	**398 648**

Statement of economic net worth

For the years ended 31 December

USD millions	2021	2022
Economic net worth as of 1 January	**33 652**	**35 374**
Change in EVM methodology		–418
Restated economic net worth as of 1 January	**33 652**	**34 957**
Total contribution to ENW	3 762	–1 579
Dividends and share buyback	–1 855	–1 825
Other, including foreign exchange on economic net worth	–185	–446
Economic net worth as of 31 December	**35 374**	**31 107**
Common shares outstanding as of 31 December	288 953 194	288 988 070
Economic net worth per share in USD as of 31 December	122.42	107.64

Business segments – EVM income statement

For the year ended 31 December

USD millions, unless otherwise stated	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	**Total**
2021[1]						
Underwriting result						
Gross premiums and fees	26 277	35 286	7 163	1 432	–950	69 207
Gross premiums and fees growth rate, %	10.2	18.6	18.4	–12.9	n/a	14.5
Premiums and fees	25 438	34 969	5 529	1 168		67 104
Premiums and fees retention rate, %	96.8	99.1	77.2	81.6	n/a	97.0
Premiums and fees growth rate, %	11.2	18.3	14.6	–14.4	n/a	14.4
Claims and benefits	–16 643	–24 094	–3 457	–733		–44 926
Commissions	–6 094	–7 258	–715	–242		–14 309
Other	49	–3	49	–25		70
Gross underwriting result – new business	**2 750**	**3 614**	**1 407**	**168**	**0**	**7 939**
Expenses	–1 412	–919	–1 000	–736		–4 067
Net underwriting result – new business	**1 338**	**2 695**	**407**	**–568**	**0**	**3 872**
Taxes	–322	–473	–88	141		–742
Capital costs	–432	–911	–89	–307		–1 740
EVM profit – new business	**585**	**1 310**	**230**	**–734**	**0**	**1 391**
EVM profit – previous years' business	**846**	**–1 470**	**535**	**–116**	**0**	**–205**
EVM profit – underwriting	**1 430**	**–160**	**765**	**–850**	**0**	**1 186**
Investment result						
Mark-to-market investment result	719	–520	–62	–287		–150
Benchmark investment result	1 188	1 055	191	49		2 483
Gross outperformance (underperformance)	**1 907**	**534**	**129**	**–238**	**0**	**2 333**
Other	75	26	12	4		118
Expenses	–96	–69	–16	–77		–258
Net outperformance (underperformance)	**1 886**	**492**	**125**	**–311**	**0**	**2 192**
Taxes	–390	–99	–27	45		–470
Capital costs	–384	–180	–28	–258		–850
EVM profit – investments	**1 113**	**213**	**70**	**–524**	**0**	**872**
EVM profit	**2 543**	**53**	**835**	**–1 374**	**0**	**2 058**
Cost of debt	–157	–58	–34	–36		–284
Release of current year capital costs	958	976	144	565		2 644
Additional taxes	–46	–373	–27	–209		–655
Total contribution to ENW	**3 298**	**599**	**920**	**–1 055**	**0**	**3 762**
Profit margin – new business, %	3.8	7.9	7.2	n/a	n/a	3.9
Profit margin – previous years' business, %[2]	7.4	–10.2	26.3	n/a	n/a	–0.7
Profit margin – investments, %	28.5	5.8	11.3	–32.7	n/a	8.9

[1] Comparative information for 2021 has been revised to reflect the reallocation of part of Principal Investments, Admin Re US as well as certain cross-segmental loans from Group items to Reinsurance.
[2] The overall previous years' business profit margin for the Reinsurance Business Unit was –2.4%.

Business segments – EVM income statement

For the year ended 31 December

USD millions, unless otherwise stated	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	**Total**
2022						
Underwriting result						
Gross premiums and fees	24 500	17 218	7 642	1 202	−946	49 615
Gross premiums and fees growth rate, %	−6.8	−51.2	6.7	−16.0	n/a	−28.3
Premiums and fees	23 543	16 746	5 786	840		46 914
Premiums and fees retention rate, %	96.1	97.3	75.7	69.8	n/a	94.6
Premiums and fees growth rate, %	−7.4	−52.1	4.6	−28.1	n/a	−30.1
Claims and benefits	−15 442	−11 803	−3 663	−526		−31 434
Commissions	−5 455	−2 129	−738	−156		−8 477
Other	−48	21	9	−21		−39
Gross underwriting result – new business	**2 599**	**2 834**	**1 394**	**137**	**0**	**6 964**
Expenses	−1 267	−801	−977	−652		−3 697
Net underwriting result – new business	**1 332**	**2 034**	**417**	**−515**	**0**	**3 267**
Taxes	−314	−290	−109	112		−601
Capital costs	−639	−714	−135	243		−1 245
EVM profit – new business	**379**	**1 030**	**172**	**−160**	**0**	**1 422**
EVM profit – previous years' business	**−1 969**	**−2 789**	**231**	**−125**	**0**	**−4 652**
EVM profit – underwriting	**−1 590**	**−1 759**	**403**	**−284**	**0**	**−3 230**
Investment result						
Mark-to-market investment result	−3 599	−5 271	−686	−353		−9 909
Benchmark investment result	5 220	3 642	730	219		9 811
Gross outperformance (underperformance)	**1 621**	**−1 628**	**44**	**−135**	**0**	**−97**
Other	81	27	14	1		123
Expenses	−126	−66	−20	−23		−235
Net outperformance (underperformance)	**1 577**	**−1 667**	**38**	**−157**	**0**	**−210**
Taxes	−305	314	−11	−2		−5
Capital costs	−420	−171	−28	−62		−681
EVM profit – investments	**852**	**−1 525**	**−1**	**−222**	**0**	**−896**
EVM profit	**−738**	**−3 284**	**402**	**−506**	**0**	**−4 126**
Cost of debt	−93	−22	23	142		51
Release of current year capital costs	1 960	1 725	299	−144		3 840
Additional taxes	−681	−482	−95	−85		−1 343
Total contribution to ENW	**447**	**−2 063**	**629**	**−593**	**0**	**−1 579**
Profit margin – new business, %	2.7	9.3	5.4	n/a	n/a	4.9
Profit margin – previous years' business, %[1]	−14.1	−20.8	9.6	n/a	n/a	−15.6
Profit margin – investments, %	21.5	−58.9	−0.2	−32.0	n/a	−11.6

[1] The overall previous years' business profit margin for the Reinsurance Business Unit was −17.4%.

Business segments – EVM balance sheet

As of 31 December

USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	**Total**
2021[1]						
Assets						
Investments	72 722	40 856	11 473	4 826	−10 390	119 488
Cash and cash equivalents	1 473	2 047	854	673		5 046
In-force business assets	23 223	298 723	4 502	5 462	−911	330 999
Retrocession assets	2 587	24 376	7 447	256	−5 086	29 580
Other assets	6 974	5 502	1 535	3 220	−14 051	3 180
Total assets	**106 979**	**371 504**	**25 812**	**14 437**	**−30 438**	**488 293**
Liabilities						
In-force business liabilities	73 565	297 725	19 881	6 780	−5 130	392 822
Retrocession liabilities	1 105	23 128	1 518	112	−867	24 996
Provision for capital costs	786	10 066	166	144		11 161
Future income tax liabilities	−338	5 269	−201	−474		4 255
Debt	5 027	13 757	538	3 189	−8 906	13 606
Other liabilities	13 607	4 893	728	2 386	−15 536	6 078
Total liabilities	**93 752**	**354 838**	**22 629**	**12 137**	**−30 438**	**452 919**
Economic net worth	**13 226**	**16 666**	**3 182**	**2 300**	**0**	**35 374**
Total liabilities and economic net worth	**106 979**	**371 504**	**25 812**	**14 437**	**−30 438**	**488 293**

[1] Comparative information for 2021 has been revised to reflect the reallocation of part of Principal Investments, Admin Re US as well as certain cross-segmental loans from Group items to Reinsurance.

Business segments – EVM balance sheet

As of 31 December

USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	**Total**
2022						
Assets						
Investments	64 680	33 941	9 751	6 132	−9 598	104 906
Cash and cash equivalents	1 604	1 715	715	39		4 073
In-force business assets	22 621	230 455	3 625	4 970	−494	261 177
Retrocession assets	2 185	20 401	6 652	348	−4 205	25 381
Other assets	8 307	5 369	1 241	3 278	−15 085	3 111
Total assets	**99 398**	**291 881**	**21 984**	**14 767**	**−29 381**	**398 648**
Liabilities						
In-force business liabilities	66 929	230 124	15 798	6 392	−3 898	315 344
Retrocession liabilities	1 259	19 457	1 585	55	−795	21 562
Provision for capital costs	1 859	8 858	295	122		11 134
Future income tax liabilities	−559	4 460	−132	−650		3 119
Debt	5 693	9 135	480	3 941	−8 021	11 228
Other liabilities	11 804	6 286	865	2 866	−16 667	5 154
Total liabilities	**86 985**	**278 321**	**18 891**	**12 725**	**−29 381**	**367 541**
Economic net worth	**12 412**	**13 560**	**3 093**	**2 042**	**0**	**31 107**
Total liabilities and economic net worth	**99 398**	**291 881**	**21 984**	**14 767**	**−29 381**	**398 648**

Business segments – statement of economic net worth

For the year ended 31 December

USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
2022					
Economic net worth as of 1 January	**13 226**	**16 666**	**3 182**	**2 300**	**35 374**
Change in EVM methodology		–430	22	–9	–418
Restated economic net worth as of 1 January	**13 226**	**16 236**	**3 204**	**2 291**	**34 957**
Total contribution to ENW	447	–2 063	629	–593	–1 579
Dividends	–950		–446	–429	–1 825
Other, including foreign exchange on economic net worth	–311	–612	–294	772	–446
Economic net worth as of 31 December	**12 412**	**13 560**	**3 093**	**2 042**	**31 107**

Business segments – reconciliation to US GAAP

As of 31 December

USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
2021[1]					
US GAAP shareholders' equity	**10596**	**7255**	**2751**	**2966**	**23568**
Discounting	2849	−1195	105	18	1778
Investments and debt	2731	−1588	12	271	1426
Reserving basis					
US GAAP margins		27332		602	27934
Other	661	671	845	−1033	1143
Recognition differences	47	−837	−67	−19	−877
Goodwill and other intangibles	−2072	−1862	−314	−423	−4670
Taxes	−916	−3061	−71	32	−4016
Capital costs	−705	−10009	−142	−142	−10998
Other	34	−39	64	28	87
Total EVM valuation adjustments	**2630**	**9412**	**431**	**−667**	**11806**
Economic net worth	**13226**	**16666**	**3182**	**2300**	**35374**
2022					
US GAAP shareholders' equity	**5856**	**2595**	**2098**	**2150**	**12699**
Discounting	9376	69	889	5	10339
Investments and debt	2457	366	29	775	3627
Reserving basis					
US GAAP margins		25410		558	25968
Other	526	−192	793	−899	228
Recognition differences	−79	−756	68	4	−762
Goodwill and other intangibles	−2014	−1791	−305	−457	−4567
Taxes	−1959	−3318	−225	5	−5497
Capital costs	−1788	−8815	−275	−122	−11000
Other	37	−9	22	23	73
Total EVM valuation adjustments	**6556**	**10965**	**995**	**−108**	**18408**
Economic net worth	**12412**	**13560**	**3093**	**2042**	**31107**

[1] Comparative information for 2021 has been revised to reflect the reallocation of part of Principal Investments, Admin Re US as well as certain cross-segmental loans from Group items to Reinsurance.

Economic Value Management (EVM)
EVM is Swiss Re's proprietary integrated economic valuation and steering framework, which consistently measures economic performance across all businesses. In addition, the EVM balance sheet provides the basis for determining available capital under the Swiss Solvency Test (SST).

The EVM framework differs significantly from US GAAP, which is the basis on which Swiss Re prepares its consolidated financial statements. Swiss Re's EVM income statement (and its line items) should not be viewed as a substitute for the income statement (and its line items) in Swiss Re's US GAAP consolidated financial statements and Swiss Re's EVM economic net worth (ENW) should not be viewed as a substitute for shareholders' equity as reported in Swiss Re's US GAAP consolidated balance sheet. EVM results may be subject to significant volatility as assets and liabilities are measured on a market-consistent basis. As it is a proprietary framework, Swiss Re may change its EVM methodology from time to time.

The EVM financial information has been prepared in accordance with the Group's EVM principles and follows largely the same consolidation principles as used in the preparation of the Group's consolidated US GAAP financial statements.

Assets and liabilities denominated in foreign currencies are translated to the reporting currency at closing exchange rates. Revenues and expenses denominated in foreign currencies are translated to the reporting currency at average exchange rates for the reporting year. Foreign currency translation gains and losses are recognised directly in ENW with no impact on the EVM income statement.

EVM follows a closed-book principle and excludes the recognition of all potential future new business activities, including future renewals.

For details on the EVM valuation principles, performance attribution and differences to US GAAP, please consult our publication:

Measuring economic performance & solvency at Swiss Re
https://www.swissre.com/Library/measuring-economic-performance-solvency-at-swiss-re.html

EVM sensitivities

USD billions	Change in 2022 EVM new business profit	Change in economic net worth as of 31.12.2022
Financial market shocks:		
25% decrease in equity values	–0.9	–0.9
25% decrease in property values	–1.7	–1.7
50bps increase in credit spreads	n/a	–1.2
Change in reference rates (yield curve):[1]		
Increase by 50bps	n/a	0.0
Decrease by 50bps	n/a	0.0
Inclusion of a liquidity premium in the valuation of EVM net insurance liabilities:		
Set reference rates equal to government rates plus 10bps	n/a	0.4
Set reference rates equal to government rates plus 50bps	n/a	1.9
Set reference rates equal to government rates plus 100bps	n/a	3.6
Mortality and morbidity rates reduced by 5%:[2]		
Mortality	0.2	3.7
Longevity	0.0	–0.4
Morbidity	0.1	1.1
Future mortality improvements:		
Linearly reduce mortality improvements to 0% p.a. 5 years earlier than the base assumption	n/a	–0.5

[1] This sensitivity illustrates the impact of parallel shifts in risk-free interest rates on the balance sheet. The business volume is assumed to be constant.
[2] The assumption is that future mortality/morbidity rates are lower than those assumed in the base calculations by a uniform 5% in all future years. The related impact on profit share agreements and changes in premium rates have been reflected.

All sensitivities exclude the impact on additional taxes.

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Risk and capital management

Swiss Re maintained its very strong capital position in 2022 despite the uncertain macroeconomic environment.

"We are pleased to end the year with a solid fourth-quarter result that was driven by strong operational performance from our main businesses."

John R. Dacey
Group Chief Financial Officer

"Swiss Re's financial strength and disciplined risk-taking provide a strong base to support profitable capital deployment."

Patrick Raaflaub
Group Chief Risk Officer

Our very strong capital position enables us to take advantage of attractive market conditions while continuing our commitment to the ordinary dividend.

The Group's capital position remains very strong with a Group SST ratio of 294% as of 1 January 2023, above the target range of 200–250%. This is supported by our diversified business model and disciplined risk-taking.

Financial strength
Swiss Re's capital position remains very strong with a Group Swiss Solvency Test (SST) ratio of 294% as of 1 January 2023, which is above Swiss Re's 200–250% target Group capitalisation range. Rating agencies A.M. Best, Moody's and Standard & Poor's (S&P) rated Swiss Re's financial strength "superior", "excellent" and "very strong", respectively. This capital strength enables Swiss Re to support its clients while continuing to offer an attractive dividend to shareholders in what have been challenging times.

Swiss Re's overarching target is to maintain a very strong capital position that operates efficiently within constraints imposed by regulators and requirements from rating agencies, while giving the company maximum financial flexibility. Swiss Re's capital allocation decisions are steered to make capital and liquidity fungible to the Group wherever possible, while complying with local regulations and client needs.

As announced in April 2022, from the dividend payment in 2023, dividends will be declared in USD to align with Swiss Re's reporting currency. Although declared in USD, shareholders will receive the 2023 dividend payment in CHF converted from USD. Based on the Group's capital strength, the Board of Directors proposes an ordinary dividend of USD 6.40 per share for the 2022 financial year. In accordance with the Group's capital management priorities, the Board of Directors has not proposed a public share buyback programme to the 2023 Annual General Meeting (AGM).

Liquidity
Swiss Re's core insurance and reinsurance operations generate liquidity primarily through premium income. Exposure to liquidity risk stems mainly from two sources: the need to cover potential extreme loss events, and regulatory constraints that limit the flow of funds within the Group.

The amount of liquidity held is largely determined by internal liquidity stress tests, which estimate the potential funding requirements stemming from extreme loss events. Based on these internal liquidity stress tests, it is estimated that Swiss Reinsurance Company Ltd, the most important legal entity of the Group from a liquidity perspective, currently holds significant surplus liquidity.

Swiss Re also provides FINMA, its principal regulator, with a yearly report on its liquidity position, in accordance with FINMA Circular 13/5, "Liquidity — Insurers".

Risk Management
Group Risk Management is key to the controlled risk-taking that underpins Swiss Re's financial strength. Risk Management is mandated to ensure that the Group and its legal entities have the necessary expertise, frameworks and infrastructure to support good risk-taking. In addition, it monitors and ensures adherence to applicable frameworks and also performs reserving and reporting activities.

Risk Management is embedded throughout Swiss Re's business. The Group has dedicated Chief Risk Officers (CRO) and risk teams for all major legal entities and regions. These are closely aligned to Swiss Re's business structure, in order to ensure effective risk oversight, but remain part of the Risk Management function under the Group CRO, thus ensuring their independence as well as a consistent Group-wide approach to overseeing and controlling risks. They are supported in this by central risk teams that provide specialised risk expertise and oversight.

The Group's risk-taking is steered by Swiss Re's Risk Appetite Framework, which consists of two interlinked components: risk appetite and risk tolerance. The risk appetite statement facilitates discussions about where and how Swiss Re should deploy its capital, liquidity and other resources under a risk/return view. The risk tolerance sets clear boundaries to risk-taking.

Swiss Re's proprietary integrated risk model provides a meaningful assessment of the risks to which the Group is exposed and represents an important tool for managing its business. It determines the capital requirements for internal purposes and forms the basis for regulatory reporting under the SST and under Solvency II for legal entities in the European Economic Area (EEA) and the United Kingdom.

Swiss Re continuously reviews and updates its internal model and parameters to reflect the Group's experiences and changes in the risk environment and current best practice.

Swiss Re's risk profile
In SST 2023, Swiss Re's total risk decreased to USD 19.0 billion (compared to USD 22.7 billion in SST 2022), mainly driven by lower financial market risk. These shifts led to a decrease in diversification at risk category level.

The increase in property and casualty risk is mainly driven by the inflation parameter update, partially offset by higher interest rates and the depreciation of major currencies against the US dollar.

Lower life and health risk mainly reflects the impact of higher interest rates and the depreciation of major currencies against the US dollar.

Financial market risk decreased mainly due to the increase in investment hedges, the negative performance of credit and equity markets, the introduction of the new financial market risk model and the depreciation of major currencies against the US dollar.

The decrease in credit risk is driven by the increase in interest rates, credit spread widening and the depreciation of major currencies against the US dollar.

Financial strength and capital management

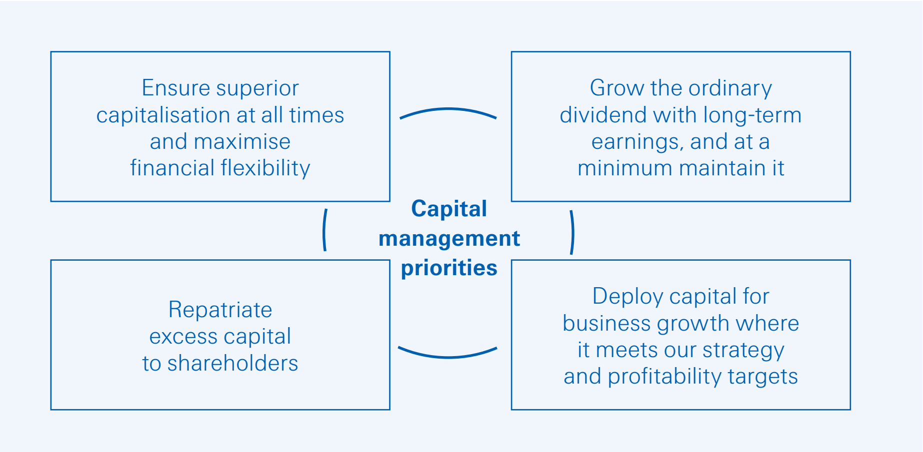
Swiss Re remained strongly capitalised throughout 2022 despite a challenging market environment

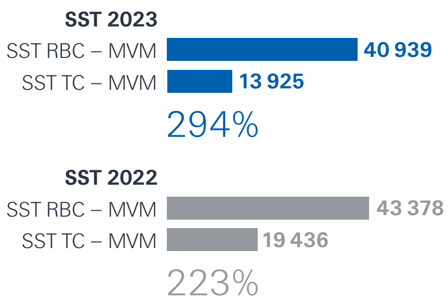
Robust capitalisation enabling market opportunities
Swiss Re's policy of ensuring superior capitalisation at all times has meant that even after a challenging year, marked by the war in Ukraine, surging inflation, the tail end of the COVID-19 pandemic and elevated natural catastrophe losses, its very strong capital position and high financial flexibility enabled the company to respond to market opportunities and therefore create sustainable long-term shareholder value by delivering another attractive ordinary dividend.

Swiss Re's capital management priorities aim to ensure the ability to continue operations following an extremely adverse year of losses from insurance and/or financial market events. Swiss Re's Board of Directors has also defined an SST capitalisation target range of 200–250% for the Swiss Re Group.

The below subsections describe Swiss Re's capitalisation according to the SST and the financial strength ratings.

Swiss Solvency Test (SST)
Swiss Re is supervised by FINMA at the Group level as well as for its regulated legal entities domiciled in Switzerland. FINMA supervision comprises minimum solvency requirements, along with a wide range of qualitative assessments and governance standards. The SST ratio is calculated as SST risk bearing capital (SST RBC) minus market value margin (MVM), divided by SST target capital (SST TC) minus MVM. The Group SST 2023 report will be filed with FINMA in April 2023. Accordingly, the information presented on the following pages is based on currently available information and may differ from the final Group SST 2023 figures.





Swiss Re's capital position remained very strong, with the Group SST 2023 ratio at 294%, well above the 200–250% target range. The increase of 71pp compared to SST 2022 was mainly driven by higher interest rates, as well as lower risk due to additional investment hedges and lower asset valuations. These effects were partially offset by a negative investment contribution, model updates and paid dividends.

Swiss Re Group SST Ratio

USD millions	SST 2022	SST 2023	Change
SST risk-bearing capital – market value margin	**43378**	**40939**	–2439
SST target capital – market value margin	**19436**	**13925**	–5511
SST ratio	**223%**	**294%**	**71pp**

294%

SST ratio
(2023)

SST risk-bearing capital (SST RBC)
The SST RBC is derived from the SST net asset value (SST NAV), which represents the difference between the market consistent value of assets and best estimate of liabilities, according to the valuation methodology prescribed under SST. For this purpose, the SST NAV is adjusted for the items in the table below.

Changes to the SST NAV mainly include economic capital generation or depletion due to underwriting and investment activities, foreign exchange movements, and capital management actions (such as dividend payments). The decrease in SST NAV to USD 44.7 billion was mainly driven by negative investment contribution, paid dividends, foreign exchange development and an adverse underwriting contribution.

SST risk-bearing capital

USD millions	SST 2022	SST 2023	Change
SST net asset value	50263	44717	–5547
Deductions	**–2455**	**–2399**	56
SST core capital	47808	42318	–5490
Supplementary capital	**6421**	**6456**	35
SST risk-bearing capital	54229	48774	–5455
Market value margin	**10851**	**7835**	–3015
SST risk-bearing capital – market value margin	43378	40939	–2439

The overall contribution from underwriting activities was negative, mainly reflecting unfavourable underwriting results from Group items and Life & Health Reinsurance. This was partially offset by positive underwriting performance from Corporate Solutions and Property & Casualty Reinsurance:

- The Property & Casualty Reinsurance positive underwriting contribution was mainly driven by profitable new business, partially offset by large natural catastrophe and man-made loss experience, including Hurricane Ian, flooding in Australia and South Africa, storms in Europe and winter storm Elliott. Reserves adjustments for inflation further weakened the result.
- The Life & Health Reinsurance negative underwriting contribution was mainly driven by adverse impact of assumptions updates. This was partially offset by transactional business in the Americas.
- Corporate Solutions positive underwriting contribution was mainly driven by robust underlying business performance and strong new business growth in selected focus portfolios as well as favourable claims experience. This was partially offset by reserves adjustments for inflation and the war in Ukraine.
- The Group items negative underwriting contribution was mainly driven by continued investments in the iptiQ business, Group overhead expenses, termination of unprofitable business as well as adverse assumption updates and experience variances in iptiQ.

The negative investment contribution was driven by higher interest rates, credit spread widening and equity mark-to-market losses, partially offset by outperformance from alternative investments.

Negative foreign exchange impacts were mostly driven by the depreciation of major currencies against the US dollar.

Deductions mainly reflect projected dividends (to be paid in 2023, subject to AGM 2023 approval) as well as deferred taxes on real estate.

Supplementary capital remained overall stable as the positive impact of the issuance of three new instruments was offset by market value movements and the redemption of one instrument during the year.

A description of the change in market value margin, which represents the capital costs for the run-off period, is provided together with the SST target capital comments below.

SST target capital (SST TC)
Swiss Re uses an internal risk model to determine the economic capital required to support the risks on the Group's book, as well as to allocate risk-taking capacity to the different lines of business. The model also provides the basis for capital cost allocation in Swiss Re's EVM framework, which is used for pricing, profitability evaluation and compensation decisions. In addition to these internal purposes, the model is used to determine regulatory capital requirements under economic solvency frameworks such as SST and Solvency II.

In 2017, FINMA approved Swiss Re's internal model and its components for SST reporting purposes under their revised model review process.

Since SST 2022, two major model changes have been implemented and approved by FINMA:

- Financial market risk: New approach which distinguishes normal financial market conditions and financial crisis situations, improves the stability of the risk measure and better reflects tail market risks.
- Cyber risk: Methodology and calibration improvements to better reflect the severity of cyber threats relating to critical infrastructure, denial of services or interruption of operations.

Model changes and parameter updates led to a decrease in the Group's SST ratio.

The risk exposure basis for SST is a projection for the period from 1 January 2023 to 31 December 2023 and is based on the economic balance sheet as of 31 December 2022 and adjustments to reflect 1 January 2023 business shifts.

To derive SST target capital, total risk is adjusted for the line item Other impacts as shown below.

SST target capital declined to USD 21.8 billion, driven by the decrease in total risk and in market value margin included in Other impacts (see Risk assessment p. 65 for details).

Other impacts mainly reflect market value margin, the impact from business development over the forecasting period and requirements from FINMA that are not included in total risk because they are not consistent with Swiss Re's own risk view.

The decrease in market value margin is mainly driven by the increase in interest rates.

SST Target Capital

USD millions	SST 2022	SST 2023	Change
Total risk	**22 739**	**18 974**	**–3 765**
Other impacts	7 548	2 786	–4 762
SST target capital	**30 287**	**21 760**	**–8 527**
Market value margin	10 851	7 835	–3 015
SST target capital – market value margin	**19 436**	**13 925**	**–5 511**

USD 10.1 bn

Distribution to Shareholders cumulative 2019–2023E

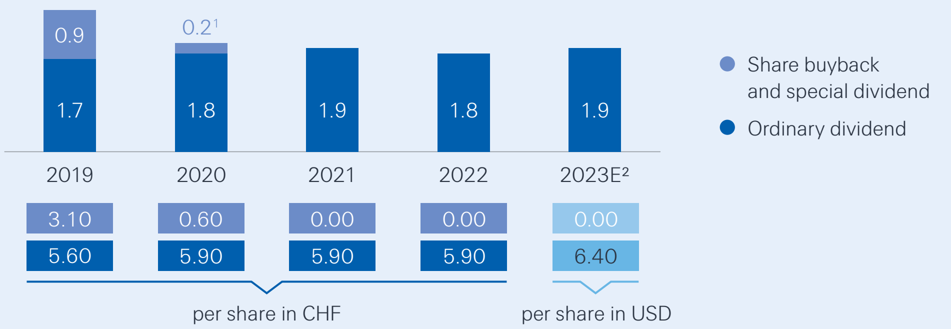
External dividends to shareholders
As announced in April 2022, from the dividend payment in 2023, dividends will be declared in USD to align with Swiss Re's reporting currency. Although declared in USD, shareholders will receive the 2023 dividend payment in CHF converted from USD.

The Board of Directors proposes an ordinary dividend of USD 6.40 per share for the 2022 financial year, reflective of the Group's strong capital position and sustained capital generation.

Swiss Re Ltd subsidiaries dividends and capital allocation
Swiss Re's peer-leading capital repatriation is supported by strong dividend payments from Swiss Re Ltd subsidiaries, in particular Swiss Reinsurance Company Ltd.

The Group also reinvested in the business by redeploying capital to support growth where it meets its strategy and profitability targets.

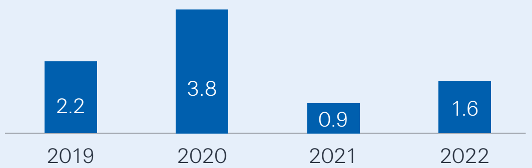
External capital repatriation (USD bn, in year paid)



USD 10.1 bn

cumulative 2019 – 2023E

Internal dividend flows (USD bn, in year paid)



Holding funds

USD 3.4 bn

as of 2022

[1] Remainder of the first tranche of the 2019/2020 share buyback programme; second tranche of the 2019/20 share buyback programme has been cancelled.
[2] Capital repatriation includes AGM 2023 proposal for ordinary dividend.

Rating agencies
Rating agencies assign credit ratings to the Swiss Re group and its rated subsidiaries and their respective obligations. The agencies evaluate Swiss Re based on a set of criteria that include an assessment of its capital adequacy, governance and risk management. Each rating agency uses a different methodology for this assessment.

A.M. Best, Moody's and S&P rate Swiss Re's financial strength based upon quantitative inputs and an interactive dialogue. The insurance financial strength ratings are shown in the table below.

On 3 November 2022, S&P published a credit opinion with a AA– financial strength of Swiss Re and its core subsidiaries. The outlook on the rating is "negative". The rating reflects Swiss Re's very strong capital adequacy, its excellent franchise and diversified product suite across non-life and life reinsurance.

On 24 November 2022, Moody's published a credit opinion on Swiss Re and its core subsidiaries with an insurance financial strength rating as "Aa3" and stable outlook. The rating reflects Swiss Re's excellent market position, extensive diversification by line of business and geography, strong capital adequacy and good reserve adequacy.

On 18 August 2022, A.M. Best confirmed the Swiss Re Group financial strength Rating of A+ (Superior) with stable outlook. The rating reflects A.M. Best's assessment of Swiss Re's balance sheet strength as "strongest", strong operating performance, very favourable business profile and very strong enterprise risk management.

Swiss Re's financial strength ratings

As of 31 December 2022	Financial strength rating	Outlook	Last update
Standard & Poor's	AA–	Negative	3 November 2022
Moody's	Aa3	Stable	24 November 2022
A.M. Best	A+	Stable	18 August 2022

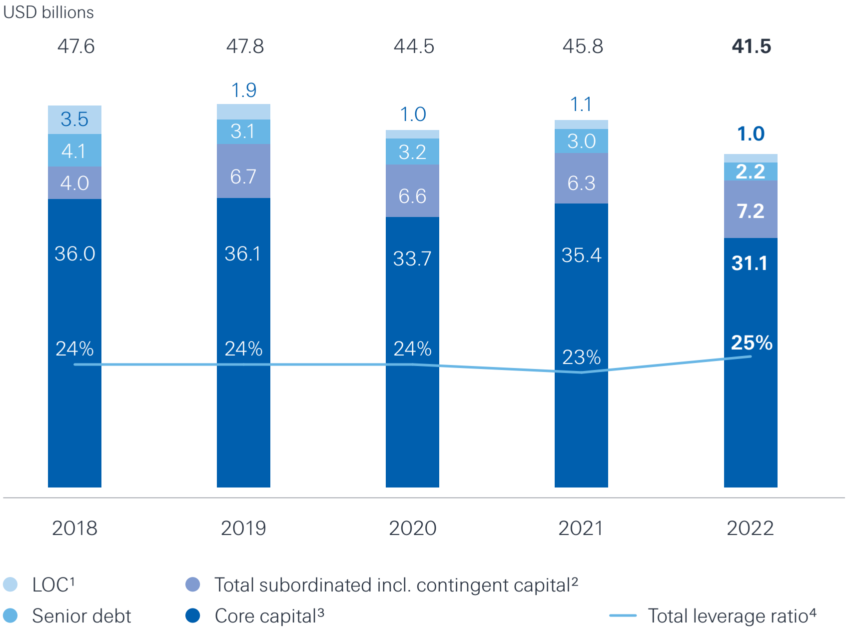
Funding activities
The Group seeks to maximise financial flexibility by maintaining strong access to diversified sources of funding and a prudent approach to leverage.

Between 2015–2017, Swiss Re established USD 2.7 billion of pre-funded subordinated debt facilities to ensure the Group had on-demand access to capital and funding, particularly during periods of market uncertainty and/or high volatility. In May 2022, during such a period, Swiss Re was able to draw on USD 1.9 billion of these facilities to refinance redemptions in 2022 and 2023, while avoiding significant market uncertainties at the time.

Swiss Re continues to take a prudent approach to leverage. In this context, Swiss Re undertook an opportunistic repurchase of USD 0.32 billion of senior notes in November 2022.

As a result of the aforementioned activities, as of 31 December 2022, the Group's total leverage ratio was 25%.

Group available capital and leverage



[1] Utilised unsecured LOC and related instruments.
[2] Funded subordinated debt and contingent capital instruments, excluding non-recourse positions.
[3] Core capital of Swiss Re Group is defined as economic net worth (ENW).
[4] Total funded senior and subordinated debt and contingent capital, excluding non-recourse position but including utilised LOCs, divided by total capitalization.

Liquidity management

The active management of liquidity risks ensures the Group's ability to satisfy its financial obligations.

As a re/insurance group, Swiss Re's core business generates liquidity primarily through premium income. The Group's exposure to liquidity risk stems mainly from two sources: the need to cover potential extreme loss events and regulatory constraints that limit the flow of funds within the organisation.

A range of liquidity policies and measures are in place to manage these risks, in particular to ensure that:

- sufficient liquidity is held to meet funding requirements under current conditions as well as adverse circumstances;
- diversified sources are used to meet the Group's residual funding needs;
- long-term liquidity needs are taken into account in the Group's planning process and in asset-liability management.

Liquidity risk management

Swiss Re's core liquidity policy is to retain access to sufficient liquidity in the form of unencumbered liquid assets, cash and pre-funded facilities, to meet potential funding requirements arising from a range of possible stress events. To allow for regulatory restrictions on intra-Group funding, liquidity is managed from a legal entity perspective. The amount of liquidity held is determined by internal liquidity stress tests, which estimate the potential funding requirements stemming from extreme loss events.

The funding requirements under stress include:

- Cash and collateral outflows, as well as potential capital and funding support required by subsidiaries as a result of loss events
- Repayment or loss of all maturing unsecured debt and credit facilities
- Additional collateral requirements associated with a potential ratings downgrade
- Further contingent funding requirements related to asset downgrades
- Other large committed payments, such as expenses, commissions and tax

The stress tests also assume that funding from assets is subject to conservative haircuts, intra-Group funding is not available if subject to regulatory approval, no new unsecured funding is available and funding from new re/insurance business is reduced.

The primary liquidity stress test is based on a one-year time horizon and a loss event corresponding to 99% tail value at risk (see page 67).

Swiss Re's liquidity stress tests are reviewed regularly and their main assumptions are approved by the Group Executive Committee. Swiss Re provides FINMA with a yearly report on its liquidity position, in accordance with FINMA circular 13/5, "Liquidity — Insurers."

Liquidity position of Swiss Reinsurance Company Ltd (SRZ)

From a liquidity perspective, SRZ is the most important legal entity of the Group. The estimated total liquidity sources in SRZ available within one year, after haircuts and net of short-term loans from Swiss Re Ltd and securities lending, amounted to USD 25.0 billion as of 31 December 2022, compared with USD 29.7 billion as of 31 December 2021.

Based on the internal liquidity stress tests described above, Swiss Re estimates that SRZ holds surplus liquidity after dividends to Swiss Re Ltd. In 2022, the amount of surplus liquidity decreased. This was largely driven by financial market developments, including the increase in interest rates and changes in foreign exchange rates, partially offset by positive net operating cash flows.

Risk management

Risk Management provides independent oversight and applies an integrated approach to managing current and emerging risks.

Embedded throughout the business, the Group Risk Management function ensures an integrated approach to managing current and emerging threats. Risk Management plays a key role in business strategy and planning, where Swiss Re's risk appetite framework facilitates risk/return discussions and sets boundaries to Group-wide risk-taking.

Taking and managing risk is central to Swiss Re's business. All risk-related activities, regardless of the legal entity in which they are undertaken, are subject to the Group's risk management framework. This framework sets out how Swiss Re organises and applies its risk management practices to ensure that all activities are conducted in line with the principles and limits mandated by the Group Risk Policy.

The framework comprises the following major elements:
- Risk policy and risk governance documentation
- Key risk management principles
- Risk culture and behaviour
- Organisation of risk management, including responsibilities at Board and executive level
- Risk control framework
- Management of risk categories
- Risk appetite framework, including limits

Swiss Re applies a differentiated governance approach at legal entity level, depending on the materiality of individual entities. Major legal entities within the Group that are designated as so-called "Level I entities", are subject to enhanced governance, which includes the following requirements:
- Develop and maintain corporate and risk governance documentation that governs the responsibilities of the legal entity Board, committees and management
- Establish an Audit Committee as well as a Finance and Risk Committee to support the legal entity Board in performing its oversight responsibility for risk and capital steering
- Designate a Chief Risk Officer and Chief Financial Officer

Swiss Re's risk management framework is set out in risk governance documentation at Group and legal entity level. Risk governance is the subset of corporate governance that describes the risk management framework and documents risk management practices. Group-level risk documents form the basis for all risk governance across Swiss Re. Additional risk governance for legal entities is prepared as an addendum to the Group or parent entity document.

Group risk governance documents are organised hierarchically across five levels, which are mirrored by equivalent documents at legal entity (LE) level:

- SRL Bylaws and the charter for the Group Finance and Risk Committee outline the ultimate authority for risk management, assigning responsibilities to the Group Board of Directors and the Group Executive Committee.
- The Group Risk Policy is defined by the Group Board and articulates Swiss Re's risk appetite framework (risk appetite and tolerance) as well as fundamental risk and capital structure principles.
- The Group Risk Management Standards outline how the Group organises and applies its risk management practices.
- Risk category standards describe how risk practices are implemented for a specific category.
- The lowest level comprises risk management methodology and process documentation.

Key risk management principles

Swiss Re's risk management is based on four fundamental principles. These apply consistently across all risk categories at Group and legal entity level:

- Controlled risk-taking – Financial strength and sustainable value creation are central to Swiss Re's value proposition. The Group thus operates within a clearly defined risk policy and risk control framework.
- Clear accountability – Swiss Re's operations are based on the principle of delegated and clearly defined authority. Individuals are accountable for the risks they take on, and their incentives are aligned with Swiss Re's overall business objectives.
- Independent risk controlling – Dedicated units within Risk Management control all risk-taking activities. These are supported by Compliance and Group Internal Audit functions.
- Open risk culture – Risk transparency, knowledge sharing and responsiveness to change are integral to the risk control process. The central goal of risk transparency is to create a culture of mutual trust and reduce the likelihood of surprises in the source and potential magnitude of losses.

Three lines of control

In line with the principle of independent risk controlling, Swiss Re organises risk controlling along three lines, with progressive levels of independence. This approach is designed to achieve a strong, coherent and Group-wide risk culture built on the principles of ownership and accountability.

- The first line comprises the day-to-day risk control activities performed by risk takers in the business as well as in corporate functions, including proactive identification of risks, as well as establishing and operating an effective control system.
- Independent oversight performed by the Risk Management and Compliance functions represents the second line of control.
- The third line consists of independent audits of processes and procedures carried out by Group Internal Audit or by external auditors.

Risk Governance documentation hierarchy

Level 0 – Risk management tasks of Boards and Executive Management	SRL Bylaws	LE bylaws
Level 1 – Risk Appetite Framework incl. risk and capital principles	Group Risk Policy	LE risk appetite
Level 2 – Risk-taking oversight throughout the Group	Group Risk Management Standards	LE risk management standards
Level 3 – Risk-taking oversight for specific risk categories	Group risk category standards	
Level 4 – Method and process documentation	Documentation on specific topics	LE specific topics

Risk culture

Swiss Re fosters and maintains a strong risk culture to promote risk awareness and discipline across all its activities. This risk culture stands for the risk and control related values, knowledge and behaviour shared by all employees. Its principal components are summarised in a framework that builds on the Group's Code of Conduct as well as on the risk management principles in the Group Risk Policy.

The risk culture framework serves to influence appropriate risk-taking behaviour in four key aspects, which are assessed annually for all employees in the performance and compensation process:

- Leadership in providing clear vision and direction
- Consideration of risk in decision-making and incentives
- Clearly defined roles and responsibilities around risk control and transparent flow of risk information
- Embedding of risk management skills and knowledge

Swiss Re's risk culture provides the foundation for the efficient and effective application of its Group-wide risk management framework. Group Risk Management reinforces the risk culture by ensuring risk transparency and fostering open discussion and challenge in the Group's risk-taking and risk management processes.

Key risk takers across Swiss Re are a particular focus in promoting good risk and control-related behaviours. The relevant positions are identified in a regular process, and those who hold them are subject to additional behavioural objectives and assessments.

Training of risk management professionals is an integral element of Swiss Re's risk management strategy. Risk training needs are identified for each employee and all new staff complete mandatory training courses in risk awareness.

Organisation of risk management
The Board of Directors of Swiss Re Ltd (the Group Board) is ultimately responsible for Swiss Re's overall risk governance principles and policies. It approves the Group's risk strategy and Group Risk Policy, which defines Swiss Re's risk appetite and tolerance, key principles for risk-taking and control and key capital structuring principles based on endorsement by the Finance and Risk Committee. The Group Board mainly performs risk oversight and governance through three committees:

- Finance and Risk Committee – annually reviews the Group Risk Policy and proposes it for approval to the Group Board, reviews risk and capacity limits approved by the Group Executive Committee as well as their usage across the Swiss Re Group, and reviews the risk control framework
- Investment Committee – reviews the risk analysis methodology and valuation methodology related to each asset class, and ensures that the relevant management processes and controlling mechanisms in Asset Management are in place
- Audit Committee – assists the Board in fulfilling its oversight responsibilities relating to the integrity of financial statements and compliance with legal and regulatory requirements; it serves as an independent monitor of the Group's financial reporting process and internal controls

The Group Board of Directors has delegated various risk management responsibilities to the Group Chief Risk Officer (Group CRO). The Group CRO is responsible for providing the Board and Group Executive Committee with independent assurance that all of Swiss Re's risks are being appropriately modelled, governed and managed and that adequate controls are in place. As part of executing these responsibilities, the Group CRO is charged with establishing the Group's risk management framework for all risk categories.

The Group CRO is a member of the Group Executive Committee and reports directly to the Group CEO. He also advises the Chairman and the Group Board, including its respective committees, in particular the Finance and Risk Committee on significant matters arising in his area of responsibility. In addition, the Group CRO is also an Executive Committee member and the CRO of SRZ, which is the main operating carrier for Swiss Re.

The Group CRO leads the independent Risk Management function, which is responsible for risk oversight and control across Swiss Re. It provides assurance to executive management and boards of directors at all levels of Swiss Re that risk-taking is well controlled, in line with risk appetite, and complies with all internal and external regulations. The Risk Management function thus forms an integral part of Swiss Re's business model and risk management framework.

Key Risk Management bodies and responsibilities

Group Board of Directors
- Responsible for the Group's governance principles and policies
- Acts through the Finance and Risk Committee, Investment Committee and Audit Committee
- Some risk management responsibilities delegated to Group CRO

Group Executive Committee
- Develops and implements risk management framework
- Sets and monitors risk capacity limits

Group CRO
- Principal independent risk controller
- Heads the Risk Management function
- Member of Group Executive Committee
- Advises Chairman and Board on risk matters

Central Risk Management Units
- Oversight of financial market, credit and liquidity risk
- Shared risk expertise: risk modelling and governance, as well as political, sustainability and emerging risks
- Strategic control services: operational and regulatory risk management

Group Internal Audit
- Independent risk controller
- Assesses adequacy and effectiveness of internal control systems

Compliance
- Compliance with applicable laws, Code of Conduct
- Manages compliance risks

Business level management
- Manages underwriting decisions and operational risks in its business scope

Business level CROs
- Expertise and resources for the control of insurance and operational risks within their business scope
- Reinsurance Risk Management performs Group level accumulation control for all P&C and L&H risks
- Supported by functional, regional & legal entity CROs
- Report to Group CRO and to business level CEO

Legal entity management
- Manages underwriting decisions and operational risks

Legal entity CROs
- Responsible for risk oversight and establishing risk governance in their respective legal entities
- Supported by subsidiary CROs as well as dedicated risk teams

Swiss Re's Risk Management function comprises central departments that provide specialised risk expertise and oversight, as well as business level risk departments for Reinsurance, Corporate Solutions and iptiQ.[1]

The central risk management departments oversee Group liquidity and capital adequacy and maintain the Group frameworks for controlling these risks throughout Swiss Re. They also support CROs at Group and legal entity level in discharging their oversight responsibilities. They do so by providing services, such as:
- Financial risk management
- Specialised risk category expertise and accumulation control
- Risk modelling and analytics
- Regulatory relations management
- Maintaining the central risk governance framework

The Risk Management function is also in charge of actuarial reserving and monitoring of reserve holdings for property and casualty business, while for life and health business the setting of the reserves is performed by valuation actuaries within L&H Business Management.

The business level Risk Management departments provide the expertise and resources for the control of insurance and operational risks within their respective business scope. The heads of these departments have a dual role, as they also serve as CROs of their respective Business Units, with dotted lines to the Business Unit CEO. Reinsurance Risk Management also performs Group-level accumulation control for P&C and L&H risks in addition to its Business Unit specific responsibilities.

The business level Risk Management departments are supported by functional and regional CROs, as well as by legal entity risk teams led by dedicated CROs who report directly or indirectly to their top-level entity CRO, with a secondary reporting line to their legal entity CEO. These legal entity CROs are responsible for risk oversight in their entities, as well as for establishing the proper risk governance to ensure efficient risk identification, assessment and control. They are assisted by subsidiary CROs who are responsible for overseeing risk management issues that arise at regional or subsidiary level.

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

Risk management activities are complemented by Swiss Re's Group Internal Audit and Compliance units:
- Group Internal Audit performs independent, objective assessments of the adequacy and effectiveness of internal control systems. It evaluates the execution of processes within Swiss Re, including those within Risk Management.
- The Compliance function oversees Swiss Re's compliance with applicable laws, regulations, and rules – primarily in relation to compliance risks – and the Code of Conduct. It also assists the Group Board, Executive Committee and other management bodies in identifying, mitigating and managing compliance risks.

Risk control framework
Swiss Re operates within a clearly defined risk control framework. This is set out in the Group Risk Management Standards and comprises a body of standards that establish an internal control system for taking and managing risk. These standards set responsibilities for risk takers and risk controllers. The risk control framework defines key tasks, which are the core components of Swiss Re's risk management cycle:
- Limit setting and monitoring – allows Swiss Re to control its risk-taking decisions and total risk accumulations, including the passive risk the company is exposed to through its operations.
- Risk oversight of plan – ensures that the risk implications of plans are understood and determines whether business and investment plans adhere to the internal risk appetite framework, including risk appetite and tolerance.
- Risk identification and exposure quantification – ensures that all risks to which Swiss Re is exposed are transparent in order to make them controllable and manageable.
- Risk assessment – enables Swiss Re to understand the magnitude and nature of its risks through quantitative and qualitative analysis, ensuring that the company operates within its risk appetite.
- Risk reporting – creates internal risk transparency and enables Swiss Re to meet external disclosure requirements.

Swiss Re has implemented a principle-based integrated internal control system to mitigate identified operational risks including financial reporting and compliance risks, as well as risks that could impair the effectiveness and efficiency of operations. This control system represents a subset of Swiss Re's risk control framework and is based on international standards established by the Committee of Sponsoring Organisations of the Treadway Commission (COSO). It is applied on multiple organisational levels, including Group, functions, regions and legal entities.

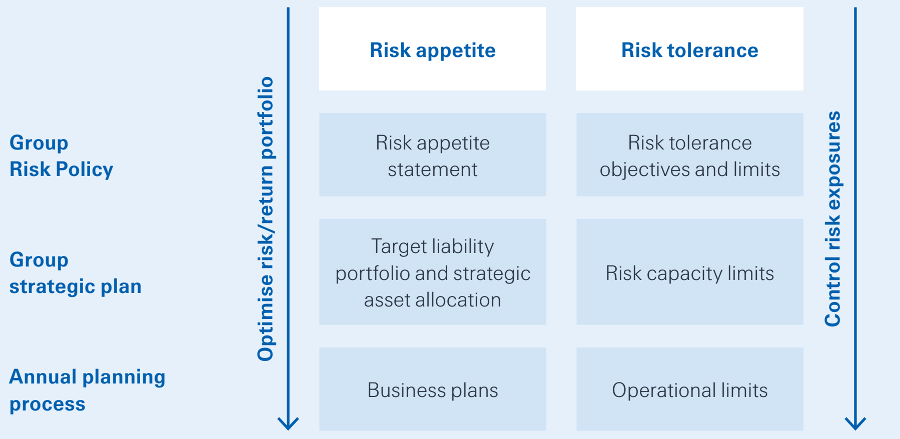
Risk transfer
To efficiently manage capital across the Group and ensure that risk-taking in individual legal entities is well-diversified, the Group employs internal retrocession and funding agreements. These serve to improve the fungibility of capital and consequently Group-wide diversification. In addition, the Group aims to maximise the amount of funds available centrally by optimising the excess capital held within its subsidiaries and branches.

Swiss Re also manages and mitigates insurance risk through external retrocession, insurance risk swaps or by transferring risk to capital markets through insurance-linked securities, industry loss warranties or other derivatives. This provides protection against extreme catastrophic events, further diversifies risk, stabilises economic results and releases underwriting capacity.

[1] On 2 February 2023, Swiss Re announced its plans to streamline its organisational structure to simplify structures and improve efficiency and client experience. The Business Unit Reinsurance will be split into two separate Business Units: Property & Casualty Reinsurance and Life & Health Reinsurance. Furthermore, a new Business Unit will be formed comprising Swiss Re's global reinsurance clients (Globals), Public Sector Solutions, iptiQ and Reinsurance Solutions. Corporate Solutions continues to operate as a stand-alone Business Unit. The changes will take effect on 3 April 2023, subject to regulatory approval.

Risk Appetite Framework

The risk appetite framework establishes the overall approach through which Swiss Re practices controlled risk-taking throughout the Group. The framework is set out in the Group Risk Policy and consists of two interlinked components: risk appetite and risk tolerance.



In addition, Swiss Re uses financial market derivative instruments as well as financial market securities to hedge financial market and credit risks arising from investments and insurance liabilities. Interest rate risk from insurance liabilities is managed through investments in fixed-income instruments whose pricing is sensitive to changes in government yields, such as government bonds.

Risk appetite framework

In the context of business strategy and planning, the risk appetite statement facilitates discussions about where and how Swiss Re should deploy its capital, liquidity and other resources under a risk-return view, while the risk tolerance sets clear boundaries to risk-taking.

During strategic planning and target setting, Risk Management provides an opinion on the proposed strategy and targets to the Executive Committee and ultimately the Group Board. The opinion focuses on the risk impact of the proposed strategy and the risks related to its implementation. The strategic plan, risk appetite and capital allocation ambition are expressed in a target portfolio for the Group's assets and liabilities, which should ultimately deliver the Group's targeted performance.

Swiss Re's risk appetite outlines the Group's own principles on acceptable risks and provides key directions for risk-taking and risk controlling as part of implementing Swiss Re's strategy: achieving targeted performance, providing liquidity and financial flexibility, managing capital adequacy, and protecting and growing franchise value.

The Group Board further details Swiss Re's risk appetite through its approval or review of the following key steering frameworks as part of the Group's planning process: target liability portfolio, strategic asset allocation and the Group's target capital structure.

Swiss Re's internal risk tolerance describes the extent to which the Group and SRZ Boards have authorised executive management to assume risk. It represents the amount of risk that Swiss Re is willing to accept within the constraints imposed by its capital and liquidity resources, its strategy, and the regulatory and rating agency environment within which it operates.

Swiss Re's internal risk tolerance is based on the following objectives:

- To maintain Group capital at a level that safeguards respectability with clients and regulators.
- To ensure the resilience of SRZ as the main operating entity from a capital and liquidity perspective.
- To avoid material operational risks that could subject the Group to large operational losses with corresponding consequences from an economic, reputational or regulatory perspective.

To meet the first objective, the Risk Policy defines internal respectability limits to ensure that the Group has enough resources to meet capital requirements at Group level as well as respectability and liquidity requirements for all legal entities. These limits ensure that Swiss Re has adequate capital and liquidity above minimum requirements to be considered a respectable counterparty by external stakeholders. To meet the second objective, Swiss Re's risk tolerance criteria include internal resilience limits for SRZ to ensure that the main operating entity is able to withstand capital and liquidity stresses. To meet the third objective, the Group has established a Group-wide risk matrix methodology in which key operational risks are assessed against an acceptable level of expected losses. Any operational risk exposure that exceeds the Group's internal operational risk tolerance is subject to a mitigation plan that is monitored by the Group's Finance and Risk Committee.

Internal risk tolerance respectability criteria for the Swiss Re Group are set out in the Group Risk Policy. The Group and SRZ Boards are responsible for approving the risk tolerance criteria, as well as for monitoring and reviewing risk tolerance. Breaches or anticipated breaches of limits established to control the risk tolerance criteria must be communicated to the Finance and Risk Committee.

Swiss Re's risk-taking is governed by a limit framework in order to ensure that accumulation risk and large losses remain at an acceptable level, as well as to steer the allocation of available risk capacity. The limit framework is rooted in the risk appetite and risk tolerance objectives set in the Group Risk Policy and helps to translate these objectives into concrete, measurable criteria. In addition, lower-level limits are implemented to allocate scarce capacity. The limit framework also allows for risk monitoring and thus supports risk controlling during the execution of the plan.

Risk assessment

In SST 2023, total risk decreased to USD 19.0 billion, mainly driven by lower financial market risk.

Swiss Re's internal model provides a meaningful assessment of the risks to which the Group is exposed and is an important tool for managing the business. It is used to measure the Group's risk position and related capital requirements as well as for defining the risk tolerance, risk limits and liquidity stress tests.

For more information about Swiss Re's internal risk model, see the Internal control system and risk model section of the Financial Report available online.

Swiss Re is exposed to insurance and financial risks that are calculated in its internal risk model, as well as other risks that are not explicitly part of the economic capital requirement but are actively monitored and controlled due to their significance for Swiss Re. These include operational, liquidity, model, valuation, regulatory, political, strategic and sustainability risks.

Property and casualty risk is mainly driven by underlying risks inherent in the business Swiss Re underwrites, in particular non-life claims inflation, natural catastrophe risk, man-made risk and costing and reserving risk. The main drivers of life and health insurance risk are lethal pandemic risk and mortality trend risk.

The Group's financial risk derives from financial market risk as well as from credit risk. Key drivers of financial market risk are credit spread and equity risk. Credit risk is mainly driven by the credit and surety business and default risk on capital market products.

Total risk is based on 99% tail value-at-risk (tail VaR) and represents the average unexpected loss that occurs with a frequency of less than once in 100 years over a one-year time horizon.

Total risk decreased to USD 19.0 billion, mainly driven by lower financial market risk. These shifts led to a decrease in diversification at risk category level.

Group capital requirement based on one-year 99% tail VaR

USD millions	SST 2022	SST 2023	Change	Cross reference information
Property and casualty	12 426	13 679	1 253	see page 68
Life and health	11 128	9 310	–1 818	see page 69
Financial market	12 418	7 882	–4 536	see page 70
Credit[1]	3 198	3 056	–142	see page 71
Diversification	–16 431	–14 953	1 478	
Total risk	**22 739**	**18 974**	**–3 765**	

[1] Credit comprises credit default and credit migration risk from both asset management and underwriting. It excludes credit spread risk, which is part of financial market risk.

Swiss Re's internal model takes account of the accumulation and diversification between individual risks. The effect of diversification at the risk category level, shown in the table above, represents the difference between total risk (the Group's 99% tail VaR) and the sum of standalone tail VaR amounts for the individual risk categories. This amount does not reflect diversification within risk categories. The extent of diversification is largely determined by the selected level of aggregation – the higher the aggregation level, the lower the diversification effect.

Alternative risk measurements for Swiss Re Group

USD millions	SST 2022	SST 2023	Change in %
99% VaR[1]	**17.4**	**15.0**	–14%
99.5% VaR[1]	**20.4**	**17.1**	–16%

[1] For the alternative risk measurements, the same risk exposure and data basis is applied as for the SST calculation.

Alternative risk measurements – 99% and 99.5% VaR – decrease to USD 15.0 billion and USD 17.1 billion, respectively.

Swiss Re's risk landscape

The risk categories shown in the table below are discussed on the following pages. Across these categories we identify and evaluate emerging threats and opportunities through a systematic framework that includes the assessment of potential surprise factors that could affect known loss potentials. Liquidity risk management is discussed on page 58.

Core risks in Swiss Re's internal model

Insurance risk

Property & Casualty
- Natural catastrophe
- Man-made
- Costing and reserving
- Claims inflation

Life & Health
- Lethal pandemic
- Mortality trend
- Longevity
- Critical illness
- Income protection
- Lapse

Financial risk

Financial market
- Credit spread
- Equity
- Foreign exchange
- FM inflation
- Interest rate
- Real estate

Credit
- Default risk
- Migration risk

Other significant risks

Operational	**Liquidity**	**Model**	**Valuation**
Regulatory	**Political**	**Sustainability**	**Strategic**

Emerging risks

Swiss Re is exposed to a broad landscape of risks. These include risks that are actively taken as part of insurance or asset management operations, and are calculated in the internal risk model as part of the Group's economic capital requirement as well as to allocate risk-taking capacity:

- Property and Casualty (P&C) insurance risk arises from coverage provided for property, liability, motor, and accident risks, as well as for specialty risks such as engineering, agriculture, aviation, marine and cyber. It includes underlying risks inherent in the business Swiss Re underwrites, such as inflation or uncertainty in pricing and reserving.

- Life and Health (L&H) insurance risk arises from coverage provided for mortality (death), longevity (annuity) and morbidity (illness and disability). In addition to potential shock events (such as a severe pandemic), it includes underlying risks inherent in life and health contracts that arise when mortality, morbidity, or lapse experience deviates from expectations.

- Financial market (FM) risk represents the potential impact on assets or liabilities that may arise from movements in financial market prices or rates, such as equity prices, interest rates, credit spreads, hedge fund prices, real estate prices, commodity prices or foreign exchange rates. Financial market risk originates from two main sources: investment activities and the sensitivity of the economic value of liabilities to financial market fluctuations.

- Credit risk reflects the potential financial loss that may arise due to diminished creditworthiness or default of counterparties of Swiss Re or of third parties; credit risk arises from investment and treasury activities, structured transactions and retrocession, as well as from liabilities underwritten by credit and surety insurance units.

The risk landscape also includes other risks that are not explicitly part of the Group's economic capital requirement but are actively monitored and controlled due to their significance for Swiss Re:

- Operational risk represents the potential economic, reputational or compliance impact of inadequate or failed internal processes, people and systems or from external events, including legal risk and the risk of a material misstatement in financial reporting. Swiss Re has implemented a capital model for operational risk, which is used for Solvency II purposes.

- Liquidity risk represents the possibility that Swiss Re will not be able to meet expected and unexpected cash flow and collateral needs without affecting either daily operations or Swiss Re's financial condition.

- Model risk reflects the potential impact of model errors or the inappropriate use of model outputs. It may arise from data errors or limitations, operational or simulation errors, or limitations in model specification, calibration or implementation; model risk may also be caused by insufficient knowledge of the model and its limitations, in particular by management and other decision makers.

- Valuation risk represents uncertainty around the appropriate value of assets or liabilities. It may arise from product complexity, parameter uncertainty, quality and consistency of data, valuation methodology or changes in market conditions and liquidity. Swiss Re is exposed to financial valuation risk from investment assets it holds as well as reserve valuation risk from insurance liabilities that result from the coverage it underwrites.

- Regulatory risk arises from changes to insurance regulations and supervisory regimes as well as from interactions with regulatory authorities of the jurisdictions in which Swiss Re operates.

- Political risk comprises the consequences of political events or actions that could have an adverse impact on Swiss Re's business or operations.

- Sustainability risk comprises the environmental, social and governance risks that may arise from individual business transactions or the way Swiss Re conducts its operations.

- Strategic risk represents the possibility that poor strategic decision making, execution or response to industry changes or competitor actions could harm Swiss Re's competitive position and thus its franchise value.

Some of these risks are reflected indirectly in the risk model, as their realisations may be contained in the historical data and scenarios used to calibrate some of the risk factors. In addition, output from the model is used in measuring liquidity risk under stressed conditions. As separate risk categories, these risks are an integral part of Swiss Re's risk landscape. They are monitored and managed within the Risk Management organisation, and included in risk reports to executive management and the Board at Group and legal entity level.

Across all risk categories, Swiss Re actively identifies emerging risks and threats as part of its risk identification process; this includes new risks as well as changes to previously known risks that could create new risk exposures or increase the potential exposure or interdependency between existing risks.

Reputational risk is not considered a separate risk category but rather represents a possible consequence of any risk type in addition to the potential financial and compliance impact.

Insurance risk

Insurance risk management involves identifying, assessing and controlling risks that Swiss Re takes through its underwriting activities, including related risks such as lapse, inflation or uncertainty in pricing and reserving. Risk Management also provides independent assurance throughout the business cycle, starting with the annual business planning process. It reviews underwriting standards, costing models and large or complex transactions, as well as monitoring exposures, reserves and limits.

Swiss Re's Group limit framework includes risk limits for major insurance exposures that guard against risk accumulations and ensure that risk-taking remains within Swiss Re's risk tolerance. At business unit and legal entity level, capacity and underwriting limits are assigned to steer the business, and ensure adherence to the Group's risk limits and SST capitalisation targets.

Regular internal reports ensure transparency across the Group, providing management with quantitative and qualitative risk assessments. Swiss Re's insurance risk landscape and related governance processes are regularly discussed and reviewed by the Senior Risk Council and other insurance risk oversight bodies in order to assist and advise the Group CRO in the risk oversight.

Swiss Re also manages and mitigates insurance risk through external retrocession, insurance risk swaps or by transferring risk to capital markets. This provides protection against extreme catastrophic events, further diversifies risk, stabilises economic results and releases underwriting capacity.

Property and casualty risk

+10%

Change since SST 2022

Risk developments

The increase in property and casualty risk is mainly driven by the inflation parameter update, partially offset by higher interest rates and the depreciation of major currencies against the US dollar. The increase is further supported by a cyber model change.

Management

Legal entity CROs are responsible for overseeing all property and casualty exposures written in their areas. In addition, Group Risk Management monitors and controls accumulated exposures across Swiss Re to ensure that they remain within the defined risk tolerance level.

The first line of control for property and casualty risks lies within Swiss Re's underwriting units. In general, all transactions must be reviewed by at least two authorised individuals and are subject to authority limits. Each underwriter is assigned an individual authority based on technical skills and experience. In addition, capacity limits are allocated to local teams; any business that exceeds this authority or is otherwise complex or unusual triggers an escalation process that extends up to the Executive Committee. Certain single risks and specified renewable treaty classes with non-material changes can be authorised by only one individual underwriter with the necessary authority – but these risks and treaties are subject to checks after acceptance.

All transactions that could materially impact the risk at Group level or for key legal entities require independent review and sign-off by Risk Management before they are authorised. This is part of a three-signature principle, under which key transactions must be approved by Client Markets, Underwriting and Risk Management. For transactions of defined types and within defined limits, this may be applied through the approval of underwriting or pricing guidelines. For other transactions, the signatures must be secured through an individual review.

Swiss Re's limit framework for property and casualty exposures includes risk limits for major natural catastrophe scenarios and other key risks, such as terrorism, claims inflation, reserving and liability.

Insurance risk stress tests with a 200-year return period

Annualised unexpected loss, 99.5% VaR in USD millions[1]	SST 2023
Atlantic hurricane	6068
Californian earthquake	4534
Japanese earthquake	3456
European windstorm	2512
Lethal pandemic	3497

[1] Excluding the impact of earned premiums for the business written and reinstatement premiums that could be triggered as a result of the event.

In SST 2023, the largest natural catastrophe exposure for Swiss Re Group derives from the Atlantic hurricane scenario with a USD 6.1 billion loss. The lethal pandemic loss is estimated to be at USD 3.5 billion.

Life and health risk

–16%

Change since SST 2022

Risk developments
Lower life and health risk mainly reflects the impact of higher interest rates and the depreciation of major currencies against the US dollar.

Management
Legal entity CROs are responsible for overseeing all life and health exposures written in their respective areas. Accumulated exposures across Swiss Re are monitored and controlled by Group Risk Management to ensure that they remain at an acceptable level for the Group.

Costing actuaries and underwriters represent the first line of control for life and health risks. All transactions that could materially change risk at Group level or for key legal entities require independent review and sign-off by Risk Management before they can be authorised. This is part of a three-signature principle, under which key transactions must be approved by Client Markets, Products, and Risk Management. For transactions of defined types and within defined limits, this may be applied through the approval of underwriting or pricing guidelines. For other transactions, the signatures must be secured through a review of the individual transaction.

Swiss Re's limit framework for life and health exposures includes risk limits for key risks, such as life (mortality trend and longevity combined), lethal pandemic, mortality trend, lapse, critical illness and income protection. Market exposure limits are in place for catastrophe and stop loss business. Swiss Re pays particular attention to densely populated areas and applies limits for individual buildings to guard against risk exposure accumulations.

Financial risk

Financial risk management involves identifying, assessing and controlling risks inherent in the financial markets as well as counterparty credit risks, while monitoring compliance with Swiss Re's risk appetite and risk management standards.

Swiss Re's central Financial Risk Management team oversees all activities that generate financial market or credit risk. Its mandate covers internally and externally managed assets, strategic participations, treasury activities, and credit and market risks that derive from Swiss Re's underwriting and retrocession activities, including structured transactions, credit insurance and surety business. The Head of Financial Risk Management reports to the Group Chief Risk Officer, with a secondary reporting line to the Group Chief Investment Officer.

Financial Risk Management controls exposure accumulation for financial market and credit risks. In addition, the team is responsible for assurance activities related to asset valuation and financial risk models, as well as for reporting Swiss Re's financial risks. These responsibilities are exercised through defined governance processes, including regular reviews by Swiss Re's Senior Risk Council and other financial risk oversight bodies.

All activities with financial market and credit risk are subject to limits at various levels of the organisation (e.g. Group, legal entities and lines of business). At the highest level, the Group Board of Directors sets a financial risk concentration limit which defines how much of the Group's risk exposure can derive from financial risk. The Executive Committee establishes the principal risk limits for financial market and credit risk at Group level. Where required, additional risk limits are established by Risk Management for legal entities, key business lines, individual counterparties and countries. Furthermore, as part of the planning process, the risk-taking functions employ capacity limits to control the amount of risk. Limits may be expressed in terms of notional value of policies, losses in a stress scenario, value at risk based on historic market moves, linear sensitivities to a particular risk factor or different methodologies of exposure aggregation.

Financial market risk

–37%

Change since SST 2022

Risk developments
Financial market risk decreased mainly due to the increase in investment hedges, the negative performance of credit and equity markets, the introduction of the new financial market risk model and the depreciation of major currencies against the US dollar.

Management
Financial market risk is monitored and controlled by dedicated experts within the Group's Financial Risk Management team. Financial Risk Management regularly reports on key financial market risks and risk aggregations, as well as on specific limits for internally and externally managed investment mandates. These reports track exposures, document limit usage and provide information on key risks that could affect the portfolio. The reports are presented and discussed with those responsible for the relevant business line at the Financial Market Risk Council.

The reporting process is complemented by regular risk discussions between Financial Risk Management, Asset Management and the Group's external investment managers, as well as by regular interactions with other key units that take financial market risk, such as Principal Investments and Acquisitions, Treasury, and the respective business teams that write transactions.

Financial Market SST ratio sensitivities

Impact on SST ratio		SST 2023
Interest rates	+50bps	12pp
Interest rates	–50bps	–13pp
Credit spreads	+50bps	–5pp
Credit spreads	–50bps	5pp
Equity values	+25%	5pp
Equity values	–25%	–5pp
Real estate values	+25%	9pp
Real estate values	–25%	–9pp

Among financial market sensitivities, the Group is most sensitive to a 50-basis-point decrease in interest rates, leading to an estimated decrease in the SST ratio of 13 percentage points.

Credit risk stress test with a 200-year return period

Annualised unexpected loss, 99.5% VaR in USD millions[1]	SST 2023
Credit default[1]	2 319

[1] Excluding the impact of earned premiums for the business written and reinstatement premiums that could be triggered as a result of the event.

Credit risk

–4%

Change since SST 2022

Risk developments

The decrease in credit risk is driven by the increase in interest rates, credit spread widening and the depreciation of major currencies against the US dollar, partially offset by the introduction of the new financial market risk model.

Management

Credit risk is monitored and controlled by experts within the Financial Risk Management team. Financial Risk Management regularly monitors and reports on counterparty credit quality, credit exposures and limits. In addition, the team compiles a watch list of cases that merit close attention. These reports are presented and discussed at the Credit Council.

The reporting process is supported by a Group-wide credit exposure information system that contains all relevant data, including counterparty details, ratings, credit risk exposures, credit limits and watch lists. Key credit practitioners across Swiss Re have access to this system, thus providing the necessary transparency to implement specific exposure management strategies for individual counterparties, industry sectors and geographic regions.

Credit risks are aggregated by country in order to monitor and control risk accumulation to specific risk drivers, such as economic, sovereign, and political risks.

Management of other significant risks

Operational risk
The Group has implemented an internal control system to mitigate operational risks through three lines of control. This system assigns primary responsibility for identifying and managing operational risks to individual risk takers (first line of control), with independent oversight and control by the Risk Management and Compliance functions (second line of control) as well as Group Internal Audit (third line of control). Members of the Executive Committee are required to certify the effectiveness of the internal control system for their area of responsibility on a quarterly basis.

Operational risk is inherent within Swiss Re's business processes. As the company does not receive an explicit financial return for such risks, the approach to managing operational risk differs from the approach applied to other risk categories. The purpose of operational risk management is not to eliminate risks but rather to identify and cost-effectively mitigate operational risks that approach or exceed Swiss Re's tolerance.

Risk Management is responsible for monitoring and controlling operational risks based on a centrally coordinated methodology. This includes a pre-defined taxonomy that is used for identifying, classifying and reporting operational risks, as well as a matrix in which risks are assessed according to their estimated probability and impact. Risks are assessed for their residual economic, financial reporting, reputational and compliance impact, taking into account existing mitigation and controls.

The matrix is also used to assess residual exposures against Swiss Re's internal tolerance limits for operational risk. This limit represents the level of operational risk that the Board of Directors and executive management teams are willing to accept. Material risks that exceed or are approaching risk tolerance are reported to executive management and Boards of Directors at Group and legal entity level. In addition, executive management is required to implement mitigation strategies for all risks that are outside of operational risk limits in order to bring them back within internal tolerance.

Cyber risk and information security are a key focus of Swiss Re's operational risk controls. The Group performs an annual cyber risk assessment to determine the current maturity of controls; this is based on internationally recognised standards. The results of the assessment are shared with senior management and mitigation activities to improve Swiss Re's cyber security resilience are coordinated by the Chief Security Officer.

Operational events and issues are recorded and managed in a central Operational Risk Management system in order to address the identified problems and avoid the recurrence of similar events. The results are reviewed by the relevant CRO and reported to the company's management team and Board of Directors.

The pace of digital transformation has accelerated, driven by strategic initiatives that aim to scale up Swiss Re's offering of data-driven services and solutions, diversify the portfolio of products and distributors, as well as take advantage of the opportunity to automate and streamline financial reporting processes in preparation for the transition to IFRS 17.

These factors, alongside geopolitical instability, have brought into focus risks around key people dependency, information security and third-party governance. Such risks are actively mitigated and closely monitored at executive management level.

Model risk
Swiss Re uses models throughout its business processes and operations, in particular to price insurance products, value financial assets and liabilities, assess reserves and portfolio cash flows, and estimate risk and capital requirements. Model owners have primary responsibility for model-related risks and are required to adhere to a robust tool development process, including testing, peer review, documentation and sign-off. A similar process also applies to model maintenance.

Swiss Re's model governance is based on Group-wide standards for model assurance. These standards seek to ensure that each model has a clear scope, is based on sound mathematical and scientific concepts, has been implemented correctly and produces appropriate results given the stated purpose. Furthermore, the calibration of model parameters (and the data on which the calibration relies) must be trustworthy, while expert judgments are required to be sensible, documented and evidenced.

Analytical or financial models that are used for costing, valuation and risk capital calculations are governed by Swiss Re's Model Risk Management Standards. Material models used for costing, valuation of reserves and assets as well as Swiss Re's internal risk model are validated by dedicated teams within Risk Management. These teams provide independent assurance that the framework has been adhered to, and also conduct independent validations. Swiss Re's internal risk model is also subject to regulatory scrutiny.

Model-related incidents are captured within Swiss Re's operational risk framework. In addition, material model developments, incidents and risks are reported in regular risk updates to executive management and the Board of Directors at Group and legal entity level.

Valuation risk
Financial valuation risk is managed by internal and external portfolio managers, who ensure that valuations remain in line with the market. In addition, Swiss Re has a function within Financial Risk Management that independently assesses valuations and valuation techniques; this team performs independent price verification for financial risk positions to confirm that valuations are reasonable and ensure there are no material misstatements of fair value in Swiss Re's financial reports. The results of the independent price verification process are reviewed by the Asset Valuation Committee. Summary results are regularly reported to executive management and the Board of Directors at Group and legal entity level. In addition, Swiss Re's external auditor conducts quarterly reviews as well as a comprehensive year-end audit of controls, methodology and results.

Reserve valuation risk is managed by Swiss Re's Actuarial Control function, with dedicated teams for property and casualty, and life and health valuation. These teams ensure that Swiss Re's reserve setting process uses an appropriate governance framework, including defined accountabilities and decision-making processes for risk takers (as the first line of control) as well as for Actuarial Control. The framework ensures that there is independent assurance on the data, assumptions, models and processes used for valuation purposes; for property and casualty business and selected life and health portfolios, it also includes an independent assessment of the reserves to ensure that their level remains within a range of possible best estimates. Regular deep-dive investigations are performed into selected portfolios in order to review the appropriateness of both the reserves and the applied reserving approach. In addition, Swiss Re's external auditor conducts quarterly reviews as well as a comprehensive year-end audit of controls, methodology and results.

Regulatory risk
Regulatory developments and related risks that may affect Swiss Re and its subsidiaries or branches are identified, assessed and monitored as part of regular oversight activities. Swiss Re is actively engaged in a dialogue with relevant regulators to improve mutual understanding of the implications arising from new regulatory proposals. Periodic reports and recommendations on regulatory issues are provided to executive management and the Board of Directors at Group and legal entity level.

The regulatory environment of the insurance industry continues to evolve on the national, regional and international level. While some regulatory changes create new business opportunities, others come with significant costs and business restrictions. Growing regulatory complexity, increased protectionism and a fragile global economy are persistent themes affecting regulation and the way Swiss Re operates worldwide.

Regulatory efforts are becoming increasingly forward-looking, aimed at a broad range of emerging risks, both actual and perceived. If new regulation is not based on clearly understood risks with a view to materiality and proportionality, and if the resulting requirements are not harmonised with international standards and best practices, this may create an excessive burden for both insurers and policyholders. It remains a key priority for Swiss Re to highlight the negative impacts of market access restrictions or impediments to global diversification towards regulators. At the same time, such risks are mitigated by seeking solutions that reduce the negative impact on Swiss Re and its clients.

Several regulators particularly in Europe and Asia, and more recently in the Americas, have developed specific expectations of how climate risks should be managed and are implementing mandatory disclosure requirements. Regulations in different jurisdictions are developing at various speeds, and are not necessarily aligned. Swiss Re continues to advocate for a harmonised and gradual implementation of these requirements in line with international standards, which aim to avoid regulatory fragmentation and ensure that requirements are appropriate. Swiss Re supports the recommendations of the Financial Stability Board Task Force for Climate-related Financial Disclosure (TCFD) and the goal of the International Sustainability Standards Board (ISSB) to develop a global baseline standard for sustainability disclosure.

Swiss Re consistently advocates the removal or reduction of market access barriers, so that policyholders, governments, taxpayers and national economies can fully benefit from international diversification and therefore from reliable, sound and affordable risk cover and transfer.

Political risk
Political developments can threaten Swiss Re's operating model but also open up opportunities for developing the business. The Group adopts a holistic view of political risk and analyses developments in individual markets and jurisdictions, as well as cross-border issues such as war, terrorism, energy-related issues and international trade controls.

Dedicated political risk analysts identify, monitor, and assess political developments across the world. Swiss Re's political risk experts also exercise oversight and control functions for named political risks, such as in the political risk insurance business; this includes monitoring political risk exposures, providing recommendations on particular transaction referrals and risk reporting. In addition, the Political Risk team provides specific country ratings and qualitative assessments that cover political, economic and security-related country risks; these assessments complement sovereign credit ratings and are used to support risk control activities and inform underwriting or other decision-making processes throughout the Group.

Swiss Re regularly identifies and assesses the impact of political risk on its business. The Group also raises awareness of political risk within the insurance industry, and actively engages in dialogue with clients, media and other stakeholders. Swiss Re builds relationships that expand the company's access to information and enhance our methodologies and standards. For example, Swiss Re participates in specialist events hosted by institutions such as industry and risk management associations and maintains relationships with political risk specialists in other industries, think tanks and universities, as well as with governmental and non-governmental organisations.

Sustainability risk
Swiss Re's continued business success depends on the successful management of sustainability risks, thus helping to maintain the trust of its stakeholders. The Group has a long-standing commitment to sustainable business practices, active corporate citizenship, as well as good, transparent governance. All employees are required to commit to and comply with Swiss Re's values and sustainability policies.

Potential sustainability risks are mitigated through clear corporate values, active dialogue and engagement with affected external stakeholders, and robust internal controls. These include a Group-wide framework for environmental, social/human rights and governance risks, the ESG Risk Framework. This framework is used to identify and address sustainability risks across Swiss Re's business activities where information granularity is available and allows for a meaningful ESG risk assessment. It comprises sustainability-related policies – with pre-defined exclusions, underwriting criteria and quality standards – as well as a central due diligence process for related transactional risks.

Sustainability risks are monitored and managed by dedicated Swiss Re experts who are also responsible for maintaining the ESG Risk Framework. Risk awareness is fostered through internal training and innovative solutions to address sustainability issues are developed. Swiss Re is also engaging with external stakeholders on selected sustainability risk topics.

For more information on the ESG Framework and Swiss Re's sustainability practices in general, see the 2022 Sustainability Report, pages 18–21.

Strategic risk
Overall responsibility for managing strategic risk lies with the Group Board, which establishes Swiss Re's overall strategy. The Boards of legal entities are responsible for the strategic risk inherent in their specific strategy development and execution. Strategic risks are addressed by examining multi-year scenarios, considering the related risks, as well as monitoring the implementation of the chosen strategy year-by-year in terms of the annual business plan.

As part of their independent oversight role, Risk Management, Compliance and Group Internal Audit are responsible for controlling the risk-taking arising from the implementation of the strategy.

Emerging risk
Anticipating possible developments in the risk landscape is a central element of Enterprise Risk Management. Swiss Re promotes pre-emptive thinking on risk in all areas of the business in order to reduce uncertainty and diminish the volatility of the Group's results, while also identifying new business opportunities and raising awareness for emerging risks.

For this purpose, Swiss Re's risk identification processes are supported by a systematic framework that identifies, assesses and monitors emerging risks and opportunities across all areas of Swiss Re's risk landscape. This framework combines a bottom-up approach driven by employee input with central and regional experts on emerging risk. The resulting information is complemented with insights from external organisations such as think tanks, academic networks and international organisations, as well as from interaction with clients.

Findings, including a prioritised overview of newly identified emerging risks and an estimate of their potential impact on Swiss Re's business, are reported to senior management, the respective business steering functions and other internal stakeholders.

Swiss Re also publishes an annual emerging risk report (Swiss Re SONAR) to raise awareness within the Group and across the industry, and initiate a risk dialogue with key external stakeholders. To advance risk awareness across the industry and beyond, Swiss Re maintains regular exchanges on emerging risks with its clients and continues to participate actively in strategic risk initiatives such as the CRO Forum's Emerging Risk Initiative and the International Risk Governance Council.

The following emerging risks are deemed particularly important for Swiss Re's business:

Mental health
The COVID-19 pandemic has exacerbated the trend for growing numbers of people experiencing mental health issues. Severe depression is of particular concern due to the risk of causing inability to work, higher suicide rates, increased likelihood for physical health impairment and related healthcare costs. As the contribution of depression to the global "burden of disease" increases, greater attention is being given to the potential progression from risk triggers and mild symptoms to severe states.

Potential business impact
For insurers and reinsurers, there are direct implications, particularly for disability claims and cases of early mortality. If conditions remain untreated, affected individuals may develop more severe health problems later in life such as cardiovascular diseases, back pain and diabetes. Preventing mental illness from developing or escalating can thus not only improve personal wellbeing, but also significantly reduce healthcare costs. For the insurance industry, challenges around offering adequate protection for mental health vulnerabilities are as much in focus as preventive measures.

Mitigation measures

Swiss Re advocates de-stigmatisation as key to tackling mental health issues, favouring prevention, early intervention, and continuous mental wellbeing management. Swiss Re has undertaken several consumer surveys to monitor mental health wellbeing in Europe and Asia. To strengthen preventive care and mental health resilience among insureds, Swiss Re partnered with an innovative mental health platform to create an insurance-specific app to help policyholders better track their mental wellbeing and improve links to insurers' support networks, such as therapy providers or employee assistance programmes.

Swiss Re's Life & Health medical underwriting manual (Life Guide) includes support for insurers' assessment of mental health conditions. The manual embraces a holistic and inclusive approach and offers guidance on emerging risk factors like burnout and work-related stress.

To raise awareness, Swiss Re Institute has been issuing publications on mental health risks. To support the wellbeing of Swiss Re's own employees, a mental health network is maintained internally, supported by awareness campaigns.

Reliability of energy supplies

The current conflict-driven energy supply crisis in Europe highlights the fragility and interdependencies of energy supply networks. Long-lasting outage or deficiency of energy supplies can also be triggered by natural catastrophes (eg solar storms), network volatility (eg through volatile renewable energy sources such as wind and solar) and intentional (eg cyber attack or political events) or unintentional man-made events from technical or human failure. These can lead to potentially accumulating disruptions of electric power, gas, or oil distribution systems. Energy supply disruptions become more likely as energy distribution systems are increasingly operating at capacity and inconsistently maintained. In addition, the complexity, diversity and interdependency of energy supplies is increasing.

Potential business impact

A prolonged large-scale disruption of energy supplies can lead to widespread property damage, business interruption, financial market impacts and operational challenges. Importantly, it is likely that business impacts increase non-linearly the longer blackouts last. This could lead to substantial economic losses. Exposure for the insurance industry could be significant, though many of these risks remain uninsured.

Mitigation measures

Swiss Re actively addresses prolonged energy supply disruption risk through scenario assessments of the potential business impact. Swiss Re maintains a risk dialogue with governmental bodies, power suppliers and other stakeholders to discuss energy supply disruption risk and potential mitigation measures. Considerations include preventive measures, possibilities for public-private partnerships to create insurance pool solutions and other approaches to improve resilience. Given that future energy storage technologies will play an important role as a risk mitigant, Swiss Re is engaging in raising awareness through the CRO Forum's Emerging Risk Initiative, where Swiss Re led a publication on the subject in 2022.

For more information about emerging risk, see the Swiss Re SONAR report.

Corporate governance

Swiss Re's corporate governance facilitates the assessment of the quality of Swiss Re's organisation.

> "Good governance is recognised as a crucial way to address the promotion of positive conduct and culture in companies."

Sergio P. Ermotti
Chairman of the Board of Directors

Overview

Corporate governance trends
Environmental, social and governance (ESG) remains a top priority, with growing emphasis on reporting and disclosure requirements combined with increased regulatory oversight and action, as well as legislative developments and litigation. Climate change continues to be the primary focus within ESG, with companies under pressure to address stakeholder concerns about the company's environmental impact as well as satisfy regulators. Shareholder/stakeholder engagement and reporting, diversity, equity and inclusion (DEI), as well as cyber security and data protection are other important topics that are increasingly coming into focus. Governance, including the transparency and accountability of Board decisions, has been an overarching theme in response to each of these trending topics, with increasing focus on ensuring executive remuneration incentivises the right behaviour. Good governance is recognised as a crucial way to address the promotion of positive conduct and culture in companies.

Pages 80–83 provide more information on Swiss Re's governance approach to ESG.

Highlight 2022
Swiss Re Group Summit
After a three-year break due to COVID-19, Swiss Re held its Swiss Re Group Summit in Zurich on 7 December 2022. The Board of Directors and Group Executive Committee members were joined by Board members of the most important subsidiaries to share experiences, discuss current challenges, key trends and topics affecting the reinsurance/insurance industry and Swiss Re's performance overall. The participants discussed several strategy updates, Swiss Re's financial performance and the capital position as well as the status of the transition from US GAAP to IFRS. Furthermore, changes to Swiss Re's compensation framework and an update of the people strategy were provided. Lastly, a panel discussion addressed Swiss Re's enhanced Group Sustainability Strategy, commercial opportunities related to decarbonisation and Swiss Re's approach to responsible investing.

Board of Directors
New Board members nominated
At the AGM 2022, Swiss Re's Board of Directors committed to increasing the share of women on the Board to at least 30 percent by the AGM 2023. On 9 December 2022, Swiss Re announced the nomination of Vanessa Lau and Pia Tischhauser for election as new Board members by the AGM 2023. These nominations underline Swiss Re's conviction that a diverse Board composition is of utmost importance.

Board governance changes
Implicit age limit removed
The implicit age limit of 70 years for Board membership was removed in 2022 to avoid age discrimination.

12-year tenure limit introduced
The AGM 2022 approved an amendment to the Articles of Association to introduce a 12-year tenure limit for the Board mandate, applicable for all current and new Board members.

Governance framework

Non-transferable Board duties

Under the leadership of its Chairman, the Board of Directors is responsible for the overall direction, supervision and control of Swiss Re Ltd and the Group. These responsibilities are non-transferable and rest with the entire Board of Directors. The Board has established the following five Board committees that support the Board in fulfilling its duties; the Governance and Nomination Committee, the Audit Committee, the Compensation Committee, the Finance and Risk Committee and the Investment Committee.

Delegation of management

The Board of Directors has delegated the management of Swiss Re Ltd and the Group to the Group EC, under the leadership of the Group CEO. Such delegated management is within the responsibility of the entire Group EC except for responsibilities delegated to the Group CEO and further Group EC members individually.

Operating carrier Swiss Reinsurance Company Ltd

Swiss Reinsurance Company Ltd is Swiss Re's main operating carrier. The Boards of Directors of Swiss Re Ltd and Swiss Reinsurance Company Ltd are comprised of identical members. Swiss Reinsurance Company Ltd is managed by the Group EC in its capacity as the legal entity's Executive Committee.

Adherence to regulation

Swiss Re's corporate governance adheres to:

- Swiss Code of Best Practice for Corporate Governance (Swiss Code) dated 28 August 2014, issued by economiesuisse, the Swiss business federation – a revised version of the Swiss Code will enter into force in spring of 2023
- Provisions on corporate governance, risk management and internal control system applicable to insurers as set out in the Swiss insurance regulation as well as FINMA practice rules
- Applicable local rules and regulations in all jurisdictions where Swiss Re conducts business
- SIX Swiss Exchange's Directive on Information Relating to Corporate Governance (including its annex), dated 18 June 2021, that entered into effect on 1 October 2021

Governance documents

Swiss Re's corporate governance is governed by the following documents:

Group Code of Conduct
www.swissre.com/codeofconduct

Corporate Governance Guidelines
www.swissre.com/governanceguidelines

Articles of Association (Swiss Re Ltd)
www.swissre.com/articles

Bylaws (Swiss Re Ltd)
www.swissre.com/bylaws

Swiss Re streamlines organisational structure

On 2 February 2023, Swiss Re announced its plans to streamline its organisational structure to simplify structures and improve efficiency and client experience. The Business Unit Reinsurance will be split into two separate Business Units: Property & Casualty Reinsurance and Life & Health Reinsurance. Furthermore, a new Business Unit will be formed comprising Swiss Re's global reinsurance clients (Globals), Public Sector Solutions, iptiQ and Reinsurance Solutions. Corporate Solutions continues to operate as a stand-alone Business Unit. The changes will take effect on 3 April 2023, subject to regulatory approvals.

NICG

The Network for Innovative Corporate Governance (NICG) is a strategic research cooperation between the University of St. Gallen (HSG) and Swiss Re in the field of corporate governance. On 28 November 2022, the NICG held a conference at Swiss Re's Center for Global Dialogue on the topic "Governance Dynamism – The New Normal". The aim of the conference was to provide a platform for the exchange of knowledge, to initiate discussions and to communicate possible potential for development. Participants shared their experience from private as well as listed companies and academia on topics such as "Actions in ESG and Digital Transformation" and "Non-financial reporting requirements – trends and implications".

Changes in 2022/2023

Board of Directors

In line with the 12-year tenure limit, Raymond K.F. Ch'ien did not stand for re-election at the AGM 2022. The AGM re-elected all other Board members. There were no further changes to the Board composition during 2022.

Renato Fassbind will not stand for re-election at the AGM 2023, having reached the 12-year tenure limit. After nine years of service, Susan L. Wagner will also not stand for re-election. The Board of Directors proposes the Chairman as well as all remaining Board members for re-election at the AGM 2023. The Board of Directors proposes the election of Vanessa Lau and Pia Tischhauser as new members of the Board of Directors. Please refer to page 96 for more information on the candidates.

Group Executive Committee (Group EC)

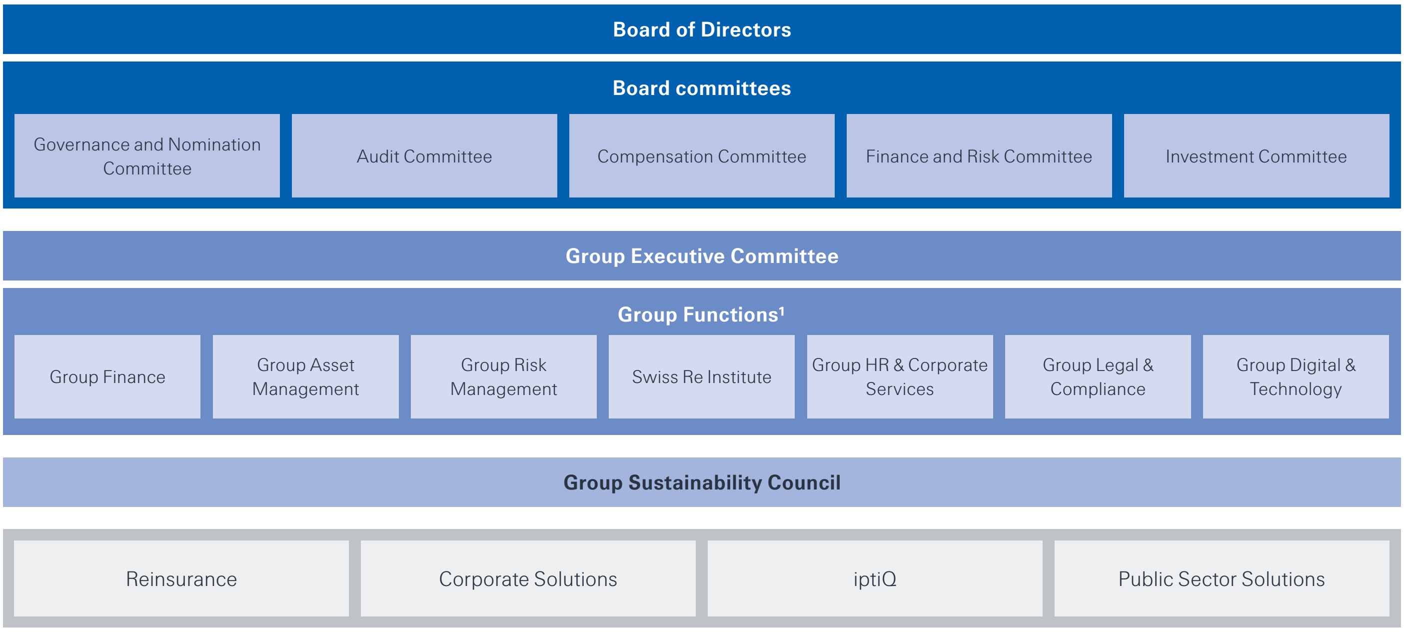
On 1 January 2022, Pravina Ladva was appointed Group Chief Digital & Technology Officer (Group CDTO) and a member of the Group EC. Paul Murray was appointed CEO Reinsurance Asia and Regional President Asia and a member of the Group EC, effective 1 April 2022. He succeeded Russell Higginbotham, who was appointed CEO Reinsurance Solutions. Effective 1 January 2022, Group Operations was reorganised: the Group EC no longer comprises a Group Chief Operating Officer role. Corporate Services (CS) have been assigned to the responsibility of the Group CHRO and Digital & Technology to the Group CDTO.

Thierry Léger, Group Chief Underwriting Officer, stepped down from his role and as a Group EC member, effective 26 January 2023. Velina Peneva was appointed Group CIO and a member of the Group EC effective 1 April 2023. She succeeds Guido Fürer, who retires effective 31 March 2023.

Sustainability governance

Swiss Re's sustainability- and climate-related governance

The Board of Directors, its Board committees as well the Group EC and selected Group EC members have explicit responsibilities related to sustainability, which includes climate-related topics.



[1] Dedicated sustainability roles, networks and/or committees in all Group Functions and on business level.

Shareholder engagement
Investors are increasingly focused on how climate change and further sustainability topics are impacting long-term value creation. As a result, addressing concerns around diversity, executive pay, sustainability and other non-financial issues in an open exchange with shareholders and other stakeholders is becoming more important.

Swiss Re prioritises the direct engagement and dialogue with investors, sustainability rating agencies and proxy advisors on sustainability topics. These engagements involve regular discussions with Swiss Re's technical experts and business leaders on ESG-related matters. A well-established example of such engagement is the annual Chairman roadshow, which Swiss Re has been undertaking for many years. The Chairman meets major shareholders to seek feedback and discuss – in addition to the Group's strategy and financial performance – Swiss Re's sustainability approach and to engage on corporate governance topics including Board composition, diversity, experience, skills, tenure and independence as well as on the compensation framework. The Chairman continued this dialogue with support from Swiss Re's Corporate Secretariat and Investor Relations.

TCFD and Group Sustainability Report
For Swiss Re's climate-related financial disclosures (TCFD), please refer to page 148 of this Financial Report. For more information on Swiss Re's approach to sustainability, please refer to the Group Sustainability Report.

Group Sustainability Report
www.swissre.com/sustainabilityreport

Group Sustainability Strategy 2023–2025

In 2022, Swiss Re conducted a materiality assessment and adjusted the Group Sustainability Strategy for the period from 2023–2025. The strategy now focuses on two Sustainability Ambitions: advancing the net-zero transition and building societal resilience.

Group Sustainability Strategy 2023–2025
https://www.swissre.com/groupsustainabilitystrategy

Sustainability-related involvement of the Board of Directors

The below provides an overview of the Board of Directors and Board committees' sustainability-related responsibilities as well as key achievements during 2022.

Board of Directors

The Board of Directors is responsible for overseeing the development and adoption of the Group Sustainability Strategy, including climate-related policies. It has assigned detailed sustainability-related responsibilities to its Board committees.

Key achievements: The Board of Directors continued to oversee the progress of Swiss Re's sustainability-related initiatives. It approved the Group Sustainability Strategy 2023–2025 and related KPIs, the Group Sustainability Report 2021 and the UK Modern Slavery Act Transparency Statement for 2021.

Governance and Nomination Committee

Regularly reviews the Group's Sustainability Strategy and oversees its implementation; oversees the Group's corporate citizenship, its approach to sustainability topics as well as related principles and ensures that they are embedded at all levels in the Group; keeps itself informed on the activities of the Group Sustainability Council and oversees the integration of governance and operational aspects of sustainability, including initiatives and actions specifically addressing climate change.

Key achievements: In the context of a Sustainability deep dive, the Governance and Nomination Committee kept itself informed on internal and external ESG-related developments, the elements which make Swiss Re advance in its sustainability journey, including the work of the Group Sustainability Council, and was informed on evolving regulatory requirements around sustainability and related reporting.

Audit Committee

Assists the Board of Directors with regards to the integrity of Swiss Re's financial and non-financial reporting and to overseeing compliance with legal and regulatory requirements.

Key achievements: The Audit Committee discussed the growing and changing nature of legal, regulatory and reputational risks associated with ESG issues. This included litigation and divergent approaches related to ESG laws, and how these trends impact Swiss Re's ESG disclosures.

Compensation Committee

Establishes and reviews the compensation framework, guidelines and performance criteria. Performance criteria include sustainability, diversity and inclusion topics.

Key achievements: The Compensation Committee monitored the following key sustainability aspects in the compensation framework: i) gender pay equity with an ongoing focus on compensation decisions throughout the year and across the employee life cycle; and ii) sustainability among the drivers of variable cash compensation.

Finance and Risk Committee

Defines the Group Risk Policy, reviews risk and capacity limits and their usage across the Group, reviews the Risk Control Framework and the most important risk exposures in all major risk categories, including those with a specific sustainability dimension.

Key achievements: The Finance and Risk Committee reviewed sustainability-related risks and governance with an in-depth look at the ESG Risk Framework and its implementation across the Group. The Committee continued to monitor ESG-related claims trends, as well as the impact of climate change on secondary perils.

Investment Committee

Reviews Swiss Re's asset management activities and, as part of this, receives regular updates on Group Asset Management's approach to enhancing responsible investing.

Key achievements: The Investment Committee assessed Swiss Re's Responsible Investing (RI) Strategy, which supports the company in achieving its climate targets. The annual update on RI included progress reports on Swiss Re's role as an active shareholder for listed equities, as well as sustainability trends and risks for capital markets.

Board of Directors ESG sessions

During educational sessions on ESG in February and December 2022, the Board of Directors was provided with updates on sustainability-related topics as indicated below.

February 2022 session: topics discussed

- Swiss Re's long track record of sustainability since 1979
- Sustainability as a topic for all stakeholders, ie investors and rating agencies, clients, employees, regulators and authorities, and NGOs and civil society
- Swiss Re's Group Sustainability Strategy and journey towards net-zero greenhouse gas emissions by 2050 (please refer to page 12 of the 2022 Sustainability Report for the definition of net-zero greenhouse gas emissions)
- Swiss Re's sustainability KPIs going forward
- Swiss Re's ESG risk framework on all business transactions and investments
- Swiss Re's responsible investing approach supporting the transition towards a low-carbon economy
- Swiss Re's sustainability governance framework

December 2022 session

The Board of Directors approved the Group Sustainability Strategy 2023–2025 and related KPIs.

Further topics discussed:
- Requirements around sustainability-related disclosure
- Swiss Re's ESG-related disclosure and reporting
- Group Sustainability Council activities
- ESG risk management
- Journey to net-zero greenhouse gas emissions, incl. Net-Zero Insurance Alliance and Net-Zero Asset Owner Alliance

Sustainability-related involvement of the Group EC

The below provides an overview of the Group EC and its members' sustainability-related responsibilities as well as key achievements during 2022.

Group EC

While the Board of Directors is responsible for oversight, the Group EC ensures the implementation of the Group Sustainability Strategy. It therefore approves detailed sustainability policies. Furthermore, it sets and monitors risk capacity limits (including for natural catastrophes) and determines product policy and underwriting standards.

Key achievements: The Group EC discussed and submitted the Group Sustainability Strategy 2023–2025 to the Board of Directors for approval. It further discussed Swiss Re's overall approach to sustainability and approved the enhanced Oil and Gas Policy.

Group Chief Executive Officer (Group CEO)

Is responsible for overseeing the implementation of Swiss Re's Group Sustainability Strategy, including progress on Swiss Re's performance-related sustainability key performance indicators (KPIs) and net-zero commitments. In addition, the Group CEO catalyses action by engaging with internal and external stakeholders on sustainability and climate change. The Group CEO represents Swiss Re in leading sustainability-related organisations.

Key achievements: The Group CEO showed strong personal engagement on sustainability topics and raised Swiss Re's profile in public discussions, eg as Co-Chair of the WEF Alliance of CEO Climate Leaders to accelerate climate actions across value chains. As a concrete example, he initiated the buyer coalition for carbon removals. He also engaged with clients on sustainability-related topics in general as well as on Swiss Re's approach to reach net-zero Group-wide by 2050.

Group Chief Risk Officer (Group CRO)

Is responsible for establishing the Group's Risk Management Framework for all risk categories, including risks related to sustainability. In addition, the Group CRO chairs the Group Sustainability Council (GSC). In this role, the Group CRO guides the GSC's sustainability activities across the Swiss Re Group.

Key achievements: The Group CRO led the review of the Group Sustainability Strategy 2023–2025. He oversaw the enhancement of the ESG Risk Framework (eg Oil and Gas Policy), and the monitoring and implementation of various sustainability-related regulatory requirements. He co-sponsors the further development of the sustainability reporting programme.

Group Chief Financial Officer (Group CFO)

Is responsible for Swiss Re's investor relations and public disclosures, including the Financial Report, which includes Swiss Re's climate-related financial disclosures (TCFD). The Group CFO is also facilitating the fulfilment of sustainability- and climate-related reporting requirements at the legal entity level.

Key achievements: The Group CFO focused on maintaining a high level of engagement on sustainability topics with analysts, investors and credit rating agencies. The continued effort led to holding a leading position in external ESG ratings. He co-sponsors the further development of the sustainability reporting programme.

Group Chief Investment Officer (Group CIO)

Is responsible for ensuring consistent integration of sustainability aspects across the investment process. The Group CIO is responsible for investment decisions within the Strategic Asset Allocation implementation, including those related to RI, and is informed of sustainability updates through various channels, including the Asset Management Investment Committee.

Key achievements: The Group CIO oversaw the integration of a consistent ESG approach across the investment process. He further advanced the climate action approach of Swiss Re Asset Management with respect to the Engagement Framework and the evaluation of additional climate targets for the investment portfolio. He also focused on preparations for future voluntary and mandatory reporting criteria.

Group Chief Underwriting Officer (Group CUO)

Is responsible for Swiss Re's "sustainability in underwriting" initiative and for Swiss Re Institute's research agenda, which includes sustainability and resilience-related topics.

Key achievements: The Group CUO led the development of the enhanced Oil and Gas Policy, he represented Swiss Re as a founding member of the UN-convened Net-Zero Insurance Alliance (NZIA). He oversaw the chairing of the Partnership for Carbon Accounting Financials (PCAF) working group that developed the Global Greenhouse Gas Accounting and Reporting Standard for Insurance-Associated Emissions, as well as the chairing of the working group that developed the NZIA Target-Setting Protocol.

Group Chief Human Resources Officer & Head Corporate Services (Group CHRO & Head CS)

Is responsible for the Corporate Real Estate & Services, Group Communications and Human Resources division, which steers and monitors the reduction of Swiss Re's direct environmental footprint and is in charge of Swiss Re's CO2NetZero Programme to reduce Swiss Re's own greenhouse gas emissions as well as the commitment made in 2019 to reach net-zero greenhouse gas emissions in Swiss Re's operations by 2030 with a sustainable and diverse workforce.

Key achievements: The Group CHRO & Head CS oversaw the increase of the internal Carbon Steering Levy to USD 112 per tonne of CO_2e emissions in 2022 and executed on Swiss Re's participation in the NextGen CDR Facility as a founding buyer to continue to scale up carbon removals. She also oversaw progress on Swiss Re's operational greenhouse gas emission reduction targets, for example in air travel, which decreased by more than 70% in 2022 compared with the base year 2018.

Group Chief Legal Officer (Group CLO)

Is responsible for ensuring good corporate governance and compliance with sustainability-related laws and regulations.

Key achievements: The Group CLO supported the establishment of a centre of competence mandated to advise and coordinate on the response to legal issues pertaining to sustainability matters across the Group.

Group Chief Digital and Technology Officer (Group CDTO)

Is responsible for advancing sustainability in the Group's supply chain, particularly in respect of advancing compliance with ESG criteria with vendors, as well as for providing data and technology services to develop sustainability-related metrics.

Key achievements: The Group CDTO oversaw the full completion of ESG assessments of Swiss Re's Segment 1 and Segment 2 suppliers and engaged with selected Segment 1 suppliers to develop their practices. The Group CDTO also provided capabilities for the development of carbon accounting tools for Swiss Re's business.

Group Sustainability Council (GSC)

The GSC is an advisory body to the Group EC chaired by the Group CRO. It is composed of Group EC members and additional senior management representatives. The GSC is responsible for the coordination and the alignment of sustainability-related activities at Group level and for monitoring the progress on the implementation of the Group Sustainability Strategy.

Key achievements: The GSC prepared and endorsed the Group Sustainability Strategy 2023–2025 and the respective KPIs. It also assessed Swiss Re's year-end sustainability performance. The GSC endorsed, among others, Swiss Re's carbon accounting approach, governance around sustainability commitments, memberships and publications, as well as updates to the ESG Risk Framework.

Group structure and shareholders

Unless expressly stated otherwise, this Corporate Governance Report presents the circumstances and legal position as of the balance sheet date, 31 December 2022. On 1 January 2023, the revised Swiss Corporate Law *(revidiertes Aktienrecht)* came into force, which has an impact on some of the legal provisions and descriptions of the law cited in this Corporate Governance Report.

Operational Group structure*

* On 2 February 2023, Swiss Re announced its plans to streamline its organisational structure to simplify structures and improve efficiency and client experience. The Business Unit Reinsurance will be split into two separate Business Units: Property & Casualty Reinsurance and Life & Health Reinsurance. Furthermore, a new Business Unit will be formed comprising Swiss Re's global reinsurance clients (Globals), Public Sector Solutions, iptiQ and Reinsurance Solutions. Corporate Solutions continues to operate as a stand-alone Business Unit. The changes will take effect on 3 April 2023, subject to regulatory approvals.

Legal structure
Swiss Re Ltd, the Group's holding company, is a joint stock company, listed in accordance with the International Reporting Standard on SIX Swiss Exchange and organised under the laws of Switzerland. Information on its market capitalisation is provided on pages 30–31 of this Financial Report. No other Group companies have shares listed. More information on the Group companies is provided in Note 20 to the Group financial statements on pages 285–287.

Swiss Re Ltd has a level I American Depositary Receipts (ADR) programme in the US. The ADRs are traded over the counter (OTC) (ISIN US8708861088, OTC symbol SSREY). One Swiss Re Ltd share equals four ADRs. Neither the ADRs nor the underlying Swiss Re Ltd shares are listed on a securities exchange in the US. Shares represented by ADRs for which no specific voting instructions are received by the depositary from an ADR holder, are not voted at shareholder meetings.

Swiss Re Ltd
ISIN: CH0126881561
Swiss Security Number: 12688156
Domicile: Mythenquai 50/60, 8022 Zurich, Switzerland

More information on shares
Please refer to pages 30–31 of this Financial Report for more information on the Swiss Re Ltd shares, such as the price performance and trading volume in 2022, Swiss Re's dividend policy and dividends as well as an overview of the key share statistics since 2017.

Significant shareholders

The following table provides a summary of the disclosure notifications of major shareholders who as of 31 December 2022 held more than 3% of voting rights:

Shareholder	Number of shares	% of voting rights and share capital	Creation of the obligation to notify
UBS Fund Management (Switzerland) AG	9534424	3.003	5 July 2022
BlackRock, Inc.	16477986	5.19	10 November 2021

For the detailed disclosure notifications please visit: www.swissre.com/disclosureofshareholdings or https://www.ser-ag.com/en/resources/notifications-market-participants/significant-shareholders.html#/

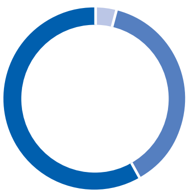
Shareholder structure

Registered, unregistered[1] shares

As of 31 December 2022	Shares	in %
Shares registered in the share register (registered shares)[2]	168134624	53.0
Shares not registered in the share register (unregistered shares)[2]	120853446	38.0
Shares held by Swiss Re	28509236	9.0
Share buy-back programme	0	0.0
Total shares issued	**317497306**	**100.0**

[1] "Unregistered" shares refers to shares for which no application has been received by the owner to enter the shares in the share register.
[2] Without Swiss Re's holdings.

Registered shareholdings by type
As of 31 December 2022



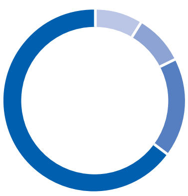
Registered shares with voting rights by shareholder type

As of 31 December 2022	Shareholders	in %	Shares	in %
Individual shareholders	99986	90.1	63647188	37.9
Swiss Re employees	7031	6.3	7063046	4.2
Total individual shareholders	**107017**	**96.4**	**70710234**	**42.1**
Institutional shareholders	**3963**	**3.6**	**97424390**	**57.9**
Total	**110980**	**100.0**	**168134624**	**100.0**

Registered shares with voting rights by size of holding

As of 31 December 2022	Shareholders	in %	Shares	
Holdings of 1–2000 shares	104064	93.7	37424839	22.3
Holdings of 2001–200000 shares	6845	6.2	59892962	35.6
Holdings of > 200000 shares	71	0.1	70816823	42.1
Total	**110980**	**100.0**	**168134624**	**100.0**

Registered shareholdings by country
As of 31 December 2022



Registered shares with voting rights by country

As of 31 December 2022	Shareholders	in %	Shares	in %
Switzerland	96196	86.7	108481291	64.5
UK	876	0.8	29345288	17.5
US	1396	1.3	14943973	8.9
Other	12512	11.2	15364072	9.1
Total	**110980**	**100.0**	**168134624**	**100.0**

Cross-shareholdings

Swiss Re Ltd has no cross-shareholdings in excess of 5% of capital or voting rights with any other company.

Capital structure

The share capital remained unchanged during 2022.

Capital

On 31 December 2022, Swiss Re Ltd had fully paid-in share capital of CHF 31 749 730.60. It was divided into 317 497 306 registered shares, each with a par value of CHF 0.10. The share capital remained unchanged during 2022.

Conditional and authorised capital in particular

Under Swiss company law, the shareholders' meeting approves the creation of conditional or authorised capital. At the AGM on 16 April 2021, shareholders approved the renewal of the authorised capital for another two years. There was no share capital increase in 2022. No shares were issued out of conditional capital during 2022.

For more information on the conditional and authorised capital, please refer to the below table as well as to the Articles of Association (Articles 3a, 3b).

Articles of Association
www.swissre.com/articles

For information on the renewal of and changes to the authorised capital and to the conditional capital, approved by the shareholders at the AGM 2021, please refer to the AGM 2021 invitation (agenda item 7).

AGM invitation
www.swissre.com/agm2021

For information on changes to the share capital for earlier years, please refer to the Corporate Governance chapter of the Annual Reports of those years.

All reports and further documents
www.swissre.com/financialinformation

Shares

All Swiss Re Ltd shares are fully paid-in registered shares *(Namenaktien)*, each share with a par value of CHF 0.10. One share carries one vote. All shares have equal entitlements for dividend payments or liquidation proceeds. Swiss Re Ltd does not have any category of shares with preferential rights. No other securities represent a part of Swiss Re Ltd's share capital. Swiss Re Ltd cannot exercise the voting rights of treasury shares. As of 31 December 2022, shareholders had registered 168 134 624 shares with the share register to be able to exercise their voting rights, out of a total of 317 497 306 shares issued.

Profit-sharing and participation certificates

Swiss Re Ltd has not issued any profit-sharing certificates *(Genussscheine)* or participation certificates *(Partizipationsscheine)*.

Transferability and nominee registrations

Swiss Re Ltd does not restrict or limit the transferability of its shares. Upon request, shareholders are recorded in the share register with the right to vote, if they provide evidence of the acquisition of the shares as well as a declaration that they have acquired the shares in their name and for their own account and are compliant with shareholding disclosure obligations. Any shareholder entered in the share register with the right to vote can exercise voting rights without any limitation.

Swiss Re Ltd applies special provisions for the registration of nominees. Nominees are entered in the share register with voting rights up to a maximum of 2% of the issued Swiss Re Ltd shares, without any further inquiry. For holdings above that threshold, nominees are only registered with voting rights if they disclose the names, addresses and shareholdings of any persons for whom the nominees are holding 0.5% or more of the issued Swiss Re Ltd shares. A group clause applies with respect to the nominee rules. The Articles of Association do not provide for exceptions, and no exceptions were granted in 2022. The Board of Directors can strike a shareholder with voting rights off the share register retroactively, if the entry was obtained under false pretences, or in the case of breach of disclosure rules (as more fully set out in Article 4 of the Articles of Association). The restrictions on nominee registrations could be abolished by way of a shareholders' resolution requiring the absolute majority of the votes validly cast at a Shareholders' meeting.

For more information on the share register and the transfer of shares, please refer to the Articles of Association (Article 4).

Articles of Association
www.swissre.com/articles

	31 December 2021			31 December 2022 (unchanged compared to previous year)		
	Capital in CHF	In % of the share capital	Shares	Capital in CHF	In % of the share capital	Shares
Shares						
Share capital	31 749 730.60	100%	317 497 306	31 749 730.60	100%	317 497 306
Conditional capital						
for Equity-Linked Financing Instruments	5 000 000.00	15.74%	50 000 000	5 000 000.00	15.74%	50 000 000
Authorised capital	8 500 000.00	26.77%	85 000 000	8 500 000.00	26.77%	85 000 000

Convertible bonds and options

Convertible bonds

As of 31 December 2022, except as provided below, neither Swiss Re Ltd nor any of its subsidiaries has any bonds outstanding that are convertible into equity securities of Swiss Re Ltd.

On 6 June 2018, Swiss Re Ltd placed USD 500 000 000 of six-year exchangeable notes in the market via a repackaging vehicle, which give noteholders an exchange right into shares of Swiss Re Ltd and may also be stock-settled at the option of Swiss Re Ltd. For details please see Note 11 to the Group financial statements on page 264 of this Financial Report. Assuming all of the notes were exchanged at the request of noteholders, 5 104 421 registered shares of Swiss Re Ltd would have to be delivered (corresponding to 1.61% of the existing share capital).

Share awards

Share awards to Swiss Re employees are physically settled (with treasury shares). The number of issued shares will not be affected. For details on share awards granted to Swiss Re employees and for more information on the quantitative impact of vested share awards please see Note 16 to the Group financial statements on page 279 of this Financial Report. Assuming maximum vesting of all share awards granted as of 31 December 2022, 3 549 851 registered shares of Swiss Re Ltd would have to be delivered (corresponding to 1.12% of the existing share capital).

Board of Directors

The Board of Directors decides on Swiss Re's Group strategy.

Members of the Board of Directors

The Board of Directors consisted of the following 12 members as of 31 December 2022:

Name	Nationality	Age	Initial election
Sergio P. Ermotti, Chairman (since 2021)	Swiss	62	2020
Renato Fassbind, Vice Chairman (since 2012), Lead Independent Director (since 2014)	Swiss	67	2011
Karen Gavan	Canadian	61	2018
Joachim Oechslin	Swiss	52	2020
Deanna Ong	Singaporean	51	2020
Jay Ralph	American, Swiss	63	2017
Joerg Reinhardt	German	66	2017
Philip K. Ryan	American	66	2015
Sir Paul Tucker	British	64	2016
Jacques de Vaucleroy	Belgian	61	2017
Susan L. Wagner	American	61	2014
Larry Zimpleman	American	71	2018

The following member of the Board of Directors did not stand for re-election at the AGM on 13 April 2022:

Name	Nationality	Age	Initial election
Raymond K.F. Ch'ien	Chinese	70	2008[1]

[1] Initially elected to the Board of Directors of Swiss Reinsurance Company Ltd, the Group's former parent company, and subsequently elected to the Board of Directors of Swiss Re Ltd in 2011.

Biographies of former Board members
www.swissre.com/formerboardmembers

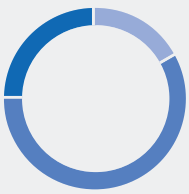
Board responsibilities

The Board of Directors is responsible for the overall direction, supervision and control of Swiss Re Ltd and the Group and the Group EC, as well as for supervising compliance with applicable laws, rules and regulations. Such responsibilities are non-transferable and rest with the entire Board of Directors. For detailed information on the Board's responsibilities, please refer to:

Bylaws (Article 5)
www.swissre.com/bylaws

Board responsibilities
www.swissre.com/boardresponsibilities

Length of tenure*



- **3** Less than 4 years
- **7** Between 4 and 8 years
- **2** Between 8 and 12 years

* The term of office of a Board member is calculated from the AGM when he or she was elected first up to the AGM 2023.

Board of Directors key focus areas 2022

- Clarify the impact of the introduction of IFRS 17
- Oversee the execution of the key underwriting priorities to increase the earnings resilience of the Group
- Emphasise the importance of diversity and inclusion across the business and geographies
- Reinforce the performance culture while addressing business goals and assessing individual performance
- Continuous oversight of cyber security and data protection matters to ensure Swiss Re's cyber preparedness
- Ensure adequate coverage of the relevant ESG topics at Board and committee level

Sergio P. Ermotti

Chairman
non-executive and independent

Board committee membership
- Governance and Nomination Committee, chair

Professional experience
Sergio P. Ermotti was Group Chief Executive Officer of UBS Group from September 2011 to October 2020, having joined the Group Executive Board in April 2011. Prior to this, he was at UniCredit Group, serving as Head of the Markets & Investment Banking Division as of December 2005, and, from 2007 to 2010, as Group Deputy Chief Executive Officer responsible for Corporate and Investment Banking and Private Banking. Between 1987 and 2004, he held various positions at Merrill Lynch & Co. in the areas of equity derivatives and capital markets. He became Co-Head of Global Equity Markets and a member of the Executive Management Committee for Global Markets & Investment Banking in 2001.

Educational background
- Swiss-certified banking expert
- Advanced Management Programme, University of Oxford, United Kingdom

External mandates
- Board member (Lead Non-Executive Director) of Ermenegildo Zegna N.V.*
- Board member of Innosuisse – Swiss Innovation Agency**

Renato Fassbind

Vice Chairman and Lead Independent Director
non-executive and independent

Board committee memberships
- Governance and Nomination Committee, member
- Audit Committee, chair
- Compensation Committee, member

Professional experience
After two years with Kunz Consulting AG, Renato Fassbind joined F. Hoffmann-La Roche Ltd in 1984, becoming Head of Internal Audit in 1988. From 1986 to 1987, he worked as a public accountant with Peat Marwick in New Jersey, USA. In 1990, he joined ABB Ltd as Head of Corporate Staff Audit and, from 1997 to 2002, was Chief Financial Officer and a member of the Group Executive Committee. In 2002, he joined Diethelm Keller Holding Ltd as Group Chief Executive Officer. From 2004 to 2010, he was Chief Financial Officer and a member of the Executive Board of Credit Suisse Group Ltd.

Educational background
- PhD in Economics, University of Zurich, Switzerland
- Certified Public Accountant (CPA), Denver, USA

External mandates
- Board member of Nestlé S.A.*
- Board member of Kühne + Nagel International Ltd*

* Listed company
** As of 1 January 2023

Karen Gavan

Board member
non-executive and independent

Board committee memberships
- Audit Committee, member
- Compensation Committee, member

Group internal Board mandate
- Swiss Re America Holding Corporation, member

Professional experience
Karen Gavan started her career in finance roles at Prudential Insurance, Imperial Life and Canada Life. She joined Transamerica Life in 1992 as Chief Financial Officer and added responsibilities over her tenure, becoming Executive Vice President and Chief Financial Officer from 2000 to 2002 of Transamerica Life Canada/AEGON Canada, and from 2003 to 2005 the company's Chief Operating Officer. From 2005, Karen Gavan assumed a number of non-executive board mandates. She joined the Board of Economical Insurance in 2008 and, until her retirement in November 2016, also served for five years as President and Chief Executive Officer at Economical Insurance, preparing the company for its initial public offering. During her leadership, the company also launched Sonnet, Canada's first fully digital insurer.

Educational background
- Honours Bachelor of Commerce, Lakehead University, Canada
- Fellow of the Institute of Chartered Accountants of Ontario, Canada

External mandates
- Board member of Mackenzie Financial Corporation
- Board member of HSBC Bank Canada

Joachim Oechslin

Board member
non-executive and independent

Board committee memberships
- Finance and Risk Committee, chair
- Investment Committee, member

Professional experience
Joachim Oechslin started his professional career in 1998 as a consultant at McKinsey & Company, specialising in the financial services sector. In 2001, he joined Winterthur Insurance, Switzerland, where he was Chief Risk Officer of Winterthur Life & Pensions until 2003 and Group Chief Risk Officer of Winterthur Group from 2003 to 2006. Joachim Oechslin became a member of the Executive Committee of Winterthur Group in 2006. Following the acquisition of Winterthur Group by AXA in 2006, he assumed the position of Deputy Group Chief Risk Officer of AXA Group. In 2007, he joined Munich Re Group as Group Chief Risk Officer and a member of the Group Committee. In 2013, he moved to Credit Suisse Group, where he was Group Chief Risk Officer and a member of the Group Executive Board from January 2014 to February 2019. He then became a Senior Advisor at Credit Suisse Group. From April 2021 to December 2021, Joachim Oechslin served as Chief Risk Officer ad interim and as a member of the Executive Boards of Credit Suisse Group AG and Credit Suisse AG on an ad-interim basis.
As of January 2022, he continued to serve Credit Suisse Group as a Senior Advisor.

Educational background
- Degree in Electrical Engineering, Higher Technical Institute (HTL), Winterthur, Switzerland
- Master of Science in Mathematics, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

External mandates
- None

Deanna Ong

Board member
non-executive and independent

Board committee memberships
- Audit Committee, member
- Compensation Committee, member

Group internal Board mandates
- Swiss Re Asia Pte. Ltd, member
- Audit Committee of Swiss Re Asia Pte. Ltd, chair

Professional experience
Deanna Ong has been Chief People Officer and a member of the Group Executive Committee at GIC, a sovereign wealth fund established by the Government of Singapore, since 2017, and Managing Director since 2008. Deanna Ong joined GIC in 1994 and held various finance roles covering public and private market assets until 2009. From 2009 to 2014, she was Director Finance, responsible for financial management across GIC's portfolio. In 2012, she also took on responsibility for Human Resources & Organisation and Corporate Governance. Prior to joining GIC, she was a tax accountant with Arthur Andersen & Co.

Educational background
- Bachelor of Accountancy, Nanyang Technological University, Singapore
- Stanford Executive Program, Stanford University, USA

External mandates
- Board member of Wealth Management Institute International Pte Ltd
- Board member of the Institute for Human Resource Professionals

Jay Ralph

Board member
non-executive and independent

Board committee memberships
- Finance and Risk Committee, member
- Investment Committee, member

Professional experience
Jay Ralph was a member of the Board of Management of Allianz SE from 2010 to 2016, with the responsibility for Asset Management and US Life Insurance. He also served on a number of boards of directors of Allianz SE subsidiaries. He was Chief Executive Officer of Allianz Re from 2007 to 2009 and President and Chief Executive Officer of Allianz Risk Transfer from 1997 to 2006. Before joining Allianz, he was an auditor at Arthur Andersen & Co., Investment Officer at Northwestern Mutual Life Insurance Company, President at Centre Re Bermuda Ltd and a member of the Executive Board of Zurich Re.

Educational background
- MBA in Finance and Economics, University of Chicago, USA
- BBA in Finance and Accounting, University of Wisconsin, USA
- Certified Public Accountant (CPA), Chartered Financial Analyst (CFA) and Fellow of the Life Management Institute (FLMI)

External mandates
- Member of the Siemens Pension Advisory Board
- Member of the Georgia O'Keeffe Board of Trustees and member of the O'Keeffe Innovations Board

Joerg Reinhardt

Board member
non-executive and independent

Board committee memberships
- Governance and Nomination Committee, member
- Compensation Committee, member

Professional experience
Joerg Reinhardt has been Chairman of the Board of Directors of Novartis since 2013 and is also Chairman of the Board of Trustees of the Novartis Foundation. He was Chairman of the Board of Management and the Executive Committee of Bayer HealthCare AG from 2010 to 2013 and, prior to that, held various executive positions at Novartis. He was Chief Operating Officer from 2008 to 2010, headed the Vaccines and Diagnostics Division from 2006 to 2008 and held a number of other senior roles, primarily in research and development, in the preceding years. Joerg Reinhardt started his career at Sandoz Pharma Ltd, a predecessor company of Novartis, in 1982.

Educational background
- PhD in Pharmaceutical Sciences, Saarland University, Germany

External mandates
- Chairman of the Board of Directors of Novartis Inc.*
- Chairman of the Board of Trustees of the Novartis Foundation

Philip K. Ryan

Board member
non-executive and independent

Board committee memberships
- Audit Committee, member
- Finance and Risk Committee, member

Group internal Board mandate
- Swiss Re America Holding Corporation, chair

Professional experience
Philip K. Ryan held various positions with Credit Suisse from 1985 to 2008, including Chairman of the Financial Institutions Group, Chief Financial Officer of Credit Suisse Group Ltd, Chief Financial Officer of Credit Suisse Asset Management and Managing Director of CSFB Financial Institutions Group. He was Chief Financial Officer of the Power Corporation of Canada from 2008 to 2012. In that capacity, he was a director of IGM Financial Inc., Great-West Lifeco Inc. and several of their subsidiaries, including Putnam Investments.

Educational background
- MBA, Kelley School of Business, Indiana University, USA
- Bachelor's degree in Industrial and System Engineering, University of Illinois, USA

External mandates
- Board member of Sunlight Financial Holdings Inc.*
- Board member of Bird Global, Inc.*/**
- Operating Partner at MKB Growth Equity
- Member of the Board of Visitors at Grainger College of Engineering, University of Illinois
- Member of the Advisory Board at the Smithsonian Tropical Research Institute

* Listed company
** As of 8 March 2023

Sir Paul Tucker

Board member
non-executive and independent

Board committee memberships
- Finance and Risk Committee, member
- Investment Committee, member

Professional experience
Sir Paul Tucker was the Deputy Governor of the Bank of England from 2009 to 2013. From 2016 to 2021, he was the chair of the Systemic Risk Council, the independent body of former top central bankers, government officials and financial experts dedicated to a stable financial system. Sir Paul Tucker held various senior roles at the Bank of England from 1980 onwards, including as a member of the Monetary Policy Committee, Financial Policy Committee, Prudential Regulatory Authority Board and Court of Directors. He also served as a member of the Steering Committee of the G20 Financial Stability Board and as a member of the Board of the Bank for International Settlements. In 2014, he was granted a knighthood for his services to central banking. Sir Paul Tucker is the author of Unelected Power: The Quest for Legitimacy in Central Banking and the Regulatory State (Princeton University Press, 2018) and Global Discord: Values and Power in a Fractured World Order (Princeton University Press, 2022).

Educational background
- BA in Mathematics and Philosophy, Trinity College, Cambridge, United Kingdom

External mandates
- Research Fellow at the Harvard Kennedy School of Government
- Board member of the Financial Services Volunteers Corps
- Senior Fellow at the Harvard Center for European Studies
- Governor of the Ditchley Foundation
- President of the UK's National Institute of Economic and Social Research

Jacques de Vaucleroy

Board member
non-executive and independent

Board committee memberships
- Governance and Nomination Committee, member
- Compensation Committee, chair
- Investment Committee, member

Group internal Board mandates
- Swiss Re Europe S.A., chair
- Swiss Re International SE, chair

Professional experience
Jacques de Vaucleroy was a member of the Management Committee of AXA Group from 2010 to 2016, serving as Chief Executive Officer for North, Central and Eastern Europe and Chief Executive Officer of Global Life & Savings. He also held a number of positions in boards of directors and supervisory boards of AXA companies. Before that, he spent 24 years at ING, where he held senior roles in banking, asset management and insurance. He was a member of the Executive Board of ING Group from 2006 to 2009, in charge of insurance and asset management in Europe.

Educational background
- Master's degree in Law, Université Catholique de Louvain, Belgium
- Master's degree in Business Law, Vrije Universiteit Brussel, Belgium

External mandates
- Chairman of Kazidomi SRL
- Chairman of Heraclius Topco BV
- Board member of Everex SA, Colt Technology Services Group plc, Fidelity International Limited and Eight Roads Holdings Limited
- Board member of the Simõn I. Patiño Foundation and the TADA non-profit organisation

Susan L. Wagner

Board member
non-executive and independent

Board committee memberships
- Governance and Nomination Committee, member
- Investment Committee, chair

Professional experience
Susan L. Wagner is a co-founder of BlackRock, where she served as Vice Chairman and a member of the Global Executive and Operating Committees before retiring in 2012. Previously, Susan L. Wagner served as Chief Operating Officer, Head of Strategy and Corporate Development, and Head of the Alternative Investment and International client businesses. Prior to founding BlackRock, Susan L. Wagner was a Vice President at Lehman Brothers, supporting the investment banking and capital markets activities of mortgage and savings institutions.

Educational background
- BA in English and Economics, Wellesley College, USA
- MBA in Finance, University of Chicago, USA

External mandates
- Board member of Apple Inc.*
- Board member of BlackRock, Inc.*
- Board member of Samsara, Inc.*
- Board member of Color Health, Inc.
- Member of the Board of Trustees of Wellesley College, USA

Larry Zimpleman

Board member
non-executive and independent

Board committee memberships
- Audit Committee, member
- Finance and Risk Committee, member

Group internal Board mandate
- Swiss Re America Holding Corporation, member

Professional experience
Larry Zimpleman started his career in 1971 as actuarial intern at The Principal Financial Group, an investment management company that offers insurance solutions, asset management and retirement services to individual and institutional clients. From 1976 to 2006, he held various senior management and leadership positions at The Principal Financial Group. He became President and Chief Executive Officer in 2008 and Chairman in 2009. In August 2015, Larry Zimpleman retired as President and CEO. His membership in the Board of Directors ended in May 2016.

Educational background
- Bachelor of Science, Drake University, USA
- MBA, Drake University, USA
- Fellow of the Society of Actuaries, USA

External mandates
- Member of the Board of Trustees of Drake University
- Member of the American Academy of Actuaries
- Member of the Society of Actuaries

External mandates
All Board members comply with Swiss Re's requirements related to external mandates.
For further details please refer to:

Articles of Association (Article 26)
www.swissre.com/articles

Bylaws (Article 20.4)
www.swissre.com/bylaws

* Listed company

Felix Horber
Group Company Secretary

Felix Horber, attorney-at-law, has been Group Company Secretary and Managing Director at Swiss Re since February 2007. He started his professional career at UBS where he was Head of Policy & Corporate Governance from 2005.

Felix Horber studied law at the University of Zurich, holds a PhD in Law and an Executive Master in European and International Business Law (E.M.B.L.-HSG). He is qualified as a Certified Director for Board Effectiveness (VR-CAS HSG) and is a Lecturer in Law at the University of St. Gallen (HSG), Switzerland. Since 1998, he has been serving as an additional judge at the Superior Court of the Canton of Zug.

Felix Horber was a member of the Admission Board of the SWX Swiss Exchange (now SIX Swiss Exchange) and currently represents Swiss Re at economiesuisse in the group of experts for corporate governance and corporate law. From 1986 to 1998, he was a member of the local parliament of Zug, presiding in 1997 and 1998.

Allocation of tasks within the Board of Directors

Chairman

The Chairman leads the Board of Directors, convenes the Board and committee meetings, establishes the agendas and presides over Board meetings. The Chairman coordinates the work of the Board committees together with the respective chairpersons and ensures that the Board is informed about the committees' activities and findings. The Chairman maintains a sound working relationship with the Group CEO and further Group EC members. He presides over shareholders' meetings and represents the Group, alongside the Group CEO, towards its shareholders, in industry associations and in the interaction with other stakeholders such as the media, political and regulatory authorities, governmental officials and the general public. Specifically, the Chairman keeps regular contact with the Group's regulator FINMA.

Vice Chairman

The Vice Chairman deputises for the Chairman if the Chairman cannot perform his duties or in a potential conflict-of-interest situation. The Vice Chairman may prepare and execute Board resolutions at the request of the Board and liaises between the Board and the Group EC in matters not reserved to the Chairman.

Lead Independent Director

The Vice Chairman or another independent member of the Board of Directors assumes the role of the Lead Independent Director. He acts as an intermediary between the Group and its shareholders and further stakeholders in the absence of the Chairman or, in particular, when a senior independent member of the Board is required. He may convene and chair sessions of the Board of Directors where the Chairman is not present. He communicates the outcome of these sessions to the Chairman.

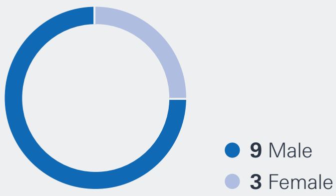
Allocation of tasks within the Board of Directors
www.swissre.com/boardlead

Board composition

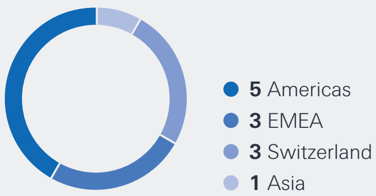
Diversity

Diversity is a priority for the Board of Directors. The Board is convinced that a diverse composition is indispensable for a successful and efficient fulfilment of its responsibilities. Diversity considerations with regards to, among others, gender, age, nationality, race, ethnicity and regional representation are a priority for the Board composition.

Gender diversity



Regional representation



Independence

The Bylaws require that at least three-quarters of the Board members are independent. Swiss Re defines independence in line with legal requirements and best practice corporate governance standards. On that basis, the Board of Directors assesses its members' independence on an annual basis. All Board members meet the independence criteria. For further details please refer to the Bylaws (Article 3.2, available under the following link: www.swissre.com/bylaws). No Board member has ever held a management position within the Group or has or represents a company or organisation which has any significant business connections with Swiss Re, other than as disclosed in Note 18 to the Group financial statements on page 283 of this Financial Report.

The members of the Board of Directors are also subject to procedures to avoid any action, position or interest that conflicts with an interest of Swiss Re or gives the appearance of a conflict. For details on the procedures please refer to the Bylaws (Article 20.2).

Election and term of office

The members of the Board of Directors, the Chairman and the members of the Compensation Committee are elected annually and individually by the AGM for a term of office until completion of the next AGM. Swiss Re has a 12-year tenure limit in place for the Board mandate.

Nominations for AGM 2023

Board of Directors

Renato Fassbind will not stand for re-election at the upcoming AGM. He is the Vice Chairman and Lead Independent Director of the Board. He has served on Swiss Re's Board of Directors since 2011 and will reach the 12-year tenure limit at the AGM 2023. After nine years of service on Swiss Re's Board of Directors, Susan L. Wagner will not stand for re-election at the upcoming AGM. The Board of Directors proposes the Chairman and all remaining Board members for re-election at the AGM 2023. Furthermore, the Board of Directors proposes Vanessa Lau and Pia Tischhauser for election as new Board members.

Vanessa Lau is the Group Chief Financial Officer of Hong Kong Exchanges and Clearing Limited (HKEX). Before joining HKEX in 2015, she worked as a Vice President & Senior Research Analyst at Sanford C. Bernstein starting in 2011. Prior to that, Vanessa Lau was the Chief Financial Officer of Alcoa's Global Rolled Products Group in New York. Before joining Alcoa, she worked as an Associate Principal at McKinsey & Company in Hong Kong. Vanessa Lau started her career in various positions at PricewaterhouseCoopers UK.

Pia Tischhauser served on the Executive Committee of Boston Consulting Group (BCG) as an elected member from 2016 until the end of 2021. From 2015 to 2021, she was also the global leader of BCG's insurance practice, tripling its client footprint with leading global and mid-sized insurers during her tenure. Prior to that, Pia Tischhauser led the global commercial insurance and reinsurance business within BCG's insurance practice and was responsible for the development and buildout of its insurance business across Switzerland and the UK.

Compensation Committee

The Board of Directors proposes Jay Ralph for election as a new member of the Compensation Committee, succeeding Renato Fassbind, and the re-election of all other members of the Compensation Committee.

Organisational principles

The Board of Directors constitutes itself after the AGM. It elects a Vice Chairman and a Lead Independent Director among its independent members. Both roles can be filled by the same independent member. The Board of Directors also elects the chairpersons and members of the Board committees (other than the members of the Compensation Committee, who are elected by the AGM). It is the Governance and Nomination Committee which prepares these proposals. The Board of Directors appoints its secretary, who is also the secretary to the Board committees with the exception of the Compensation Committee. The Global Head Reward is the secretary of the Compensation Committee. In line with the Bylaws, the Board of Directors meets at the invitation of the Chairman, as often as business requires but not fewer than six times a year.

The tables on the next page provide an overview of the meetings of the Board of Directors and Board committees in 2022, and show the overall and individual meeting attendance of the Board members.

Board committees

The Board of Directors has delegated certain responsibilities to five Board committees. Depending on the responsibility, the Board committees have decision-making powers or act in an advisory capacity. The committees work on the basis of a charter, which forms part of the Bylaws. Each committee provides a report on its activities, proposals and recommendations following a committee meeting at the next meeting of the Board of Directors. If any significant topic emerges, the committees contact the Board of Directors immediately. It is the responsibility of each committee to keep the Board of Directors informed in a timely manner. Please refer to pages 98–99 for an overview of the Board committees' responsibilities, members and key focus areas in 2022. For further information on the Board committees, please refer to the committee charters in the Bylaws or to the Swiss Re website.

Board committees
www.swissre.com/boardcommittees

Please refer to the Bylaws for further information on the working methods of the Board and its committees, in particular with regards to convening meetings and invitation, resolutions and quorum as well as on the allocation of responsibilities.

Bylaws
www.swissre.com/bylaws

Board of Directors and Board committees meetings in 2022, overall meeting attendance

Meetings	Number	Average duration	Attendance	Invitees in advisory capacity[1], in addition to Board members
Board of Directors	11 meetings[2]	4 hours	97.9%	Group EC members[3], Group Company Secretary
Governance and Nomination Committee	6 meetings[4]	1½ hours	97.2%	Group CEO, Group CHRO & Head Corporate Services, Group Company Secretary
Audit Committee	9 meetings	2½ hours	100%	Group CEO, Group CFO, Group CLO, Group CRO, Group Chief Compliance Officer, Group Finance Director, Head Group Internal Audit, Chief Accounting Officer, lead auditors of external auditor, Group Company Secretary
Compensation Committee	6 meetings[5]	2¾ hours	91.8%	Group CEO, Group CHRO & Head Corporate Services, Global Head Reward, advisors[6]
Finance and Risk Committee	6 meetings	4¼ hours	100%	Group CEO, Group CFO, Group CRO, Group CUO, Group CIO, Group CLO, Group CDTO, CEO Reinsurance, CEO Corporate Solutions, Group Treasurer, Group Company Secretary
Investment Committee	5 meetings[7]	3 hours	100%	Group CEO, Group CFO, Group CRO, Group CIO, Head Financial Risk Management, Group Treasurer, CFO Asset Management, Group Company Secretary

[1] Invitees are requested to attend selected meetings.
[2] In addition, two decisions by circular resolution.
[3] The Group EC members attend Board meetings as deemed appropriate by the Chairman and the other Board members. The presence of the entire Group EC was required for five Board meetings in 2022, and selected Group EC members were invited to six further Board meetings. The attendance rate of the Group EC members at Board and Board committees meetings was 97% in 2022 (the attendance rate represents the total actual attendance time of all members at all meetings, where their presence was required, in the year under review, 2022, in relation to the corresponding target attendance time).
[4] In addition, one decision by circular resolution.
[5] In addition, four decisions by circular resolution.
[6] The firms Mercer and PricewaterhouseCoopers Ltd (PwC) and the law firm Niederer Kraft Frey Ltd (NKF) provided support and advice for compensation issues during the reporting year. A representative of PwC participated in all six meetings in 2022, a representative of NKF participated in two committee meetings and a representative of Mercer in one meeting. NKF, Mercer and PwC have further mandates with Swiss Re.
[7] In addition, two decisions by circular resolution.

Overall Board attendance 2022

98.1%

Individual Board and Board committees meeting attendance

Board member	Meeting attendance 2022*	
Sergio P. Ermotti**	17/17	100%
Renato Fassbind	29/32	85.2%
Karen Gavan	26/26	100%
Joachim Oechslin	22/22	100%
Deanna Ong	23/23	100%
Jay Ralph	22/22	100%
Joerg Reinhardt	23/23	100%
Philip K. Ryan	26/26	100%
Sir Paul Tucker	22/22	100%
Jacques de Vaucleroy	27/28	97.6%
Susan L. Wagner	24/24	100%
Larry Zimpleman	26/26	100%
Raymond K.F. Ch'ien***	8/9	86.7%

* The attendance rate represents the total actual attendance time of an individual Board member at all Board meetings and at all Board committees meetings where he or she is a member, in the year under review, 2022, in relation to the corresponding target attendance time.
** In addition to participating at the meetings of the Board of Directors as well as of the Governance and Nomination Committee, Sergio P. Ermotti attends the meetings of the Audit Committee, the Compensation Committee, the Finance and Risk Committee and the Investment Committee as a permanent guest.
*** Board member up to the AGM 2022.

Board committees

Governance and Nomination Committee

Members in 2022	Meeting attendance	
Sergio P. Ermotti, Chair	6/6	100%
Renato Fassbind	5/6	86.1%
Joerg Reinhardt	6/6	100%
Jacques de Vaucleroy	6/6	100%
Susan L. Wagner	6/6	100%

The Governance and Nomination Committee addresses corporate governance and ESG topics affecting Swiss Re and supports the Board of Directors with the succession planning at both Board and Group EC level. It is in charge of nominating members of the Board of Directors and of the Group EC and is responsible for the succession planning for the Group CEO. It supports the Board of Directors in its overall responsibility to propose Board and Compensation Committee members for election or re-election by the shareholders at the AGM and to appoint both Group EC members and the Group CEO. Furthermore, the Governance and Nomination Committee oversees Swiss Re's talent management and respective initiatives. Finally, it takes care of the annual performance assessment and self-assessment at Board and Group EC levels, including for the Group CEO.

Key focus areas 2022

- Prepared nominations of suitable candidates for election by the AGM 2023 as new Board members
- Reviewed Group EC succession plans and determined necessary steps
- Held Sustainability Deep Dive session to keep abreast of ongoing internal and external ESG-related developments and initiatives and evolving regulatory requirements around sustainability and non-financial reporting
- Looked into streamlining the governance of the Group's most important companies
- Familiarised itself with the revision of the Swiss Corporate Law and discussed amendments to the Articles of Association

Audit Committee

Members in 2022	Meeting attendance	
Renato Fassbind, Chair	9/9	100%
Karen Gavan	9/9	100%
Deanna Ong	9/9	100%
Philip K. Ryan	9/9	100%
Larry Zimpleman	9/9	100%

The Audit Committee assists the Board of Directors in fulfilling its oversight responsibilities related to the integrity of Swiss Re's financial statements, compliance with legal and regulatory requirements, the external auditor's qualifications, independence and performance as well as the performance of Group Internal Audit. The Audit Committee independently and objectively monitors Swiss Re's financial reporting process and system of internal control, and it facilitates ongoing communication between the external auditor, the Group EC, the Business Units, Division iptiQ, Group Internal Audit and the Board with regard to Swiss Re's financial reporting and, more broadly, its financial situation.

Qualifications of Audit Committee members

All members of the Audit Committee are non-executive and independent. The following additional qualification requirements apply to Audit Committee members pursuant to internal regulations: each member has to be financially literate; at least one member must qualify as an Audit Committee financial expert, as determined by the Board of Directors; members of the Audit Committee are not allowed to serve on audit committees of more than four listed companies outside of Swiss Re; they must advise the Chairman of the Board of Directors before accepting any further invitation to serve on an audit committee of another listed company outside the Group and observe the limitations set in the Articles of Association in relation to external mandates.

Key focus areas 2022

- Finance Transformation: oversaw the integration of Finance Transformation and IFRS projects into a joint program for stronger alignment and focus and to achieve the target finance landscape for IFRS delivery
- Change in reporting basis: oversaw status and progress as well as key deliverables and budget of the IFRS transition project to ensure Swiss Re is ready to adopt IFRS as of 1 January 2024
- Knowledge transfer: conducted an Audit Committee Summit, where the members of the Swiss Re Ltd Audit Committee met with members of the Audit Committees of the most important Group companies for knowledge exchange and discussion of Group and local audit topics and important ongoing projects

Compensation Committee

Members in 2022	Meeting attendance	
Jacques de Vaucleroy, Chair	6/6	100%
Raymond K.F. Ch'ien*	2/3	58.8%
Renato Fassbind	5/6	79.4%
Karen Gavan	6/6	100%
Deanna Ong**	3/3	100%
Joerg Reinhardt	6/6	100%

* Board member up to AGM 2022.
** Joined Compensation Committee after AGM 2022.

The Compensation Committee supports the Board of Directors in establishing and reviewing Swiss Re's compensation framework and guidelines and performance criteria as well as in preparing the proposals to the AGM regarding the compensation of the Board of Directors and of the Group EC. It proposes compensation principles for the Swiss Re Group in line with legal and regulatory requirements and the Articles of Association to the Board of Directors for approval.

It determines within those approved principles, the establishment of new (and amendments to existing) compensation plans, and determines, or proposes, as appropriate, individual compensation. The Compensation Committee ensures that compensation plans do not encourage inappropriate risk-taking within the Swiss Re Group and that all aspects of compensation are fully compliant with applicable laws, rules and regulations as well as the Articles of Association.

Key focus areas 2022

- Compensation Framework and Compensation Plan design:
  - Monitored the effectiveness of the Compensation Framework and its alignment with both shareholders' interests and long-term business strategy addressing i) gender pay equity; ii) performance differentiation; and iii) application of pay for performance principles at the business and individual level
  - Implemented changes in the Compensation framework as decided in 2021 for performance year 2022
  - Reinforced performance differentiation through API to closer align with Swiss Re's pay for performance culture
  - Evaluated impact on the variable compensation due to the transition from US GAAP to IFRS and adaptation and modification
- Alleviate financial burden of soaring economic inflation and rising cost of living through a one-off payment to those who were relatively hit the hardest, which represents almost half of Swiss Re's employees
- Legal and regulatory developments: monitored legal and regulatory developments, including continued compliance with the Ordinance against Excessive Compensation at Public Corporations being transposed into Swiss corporate law per 1.1.2023

Finance and Risk Committee

Members in 2022	Meeting attendance	
Joachim Oechslin, Chair*	6/6	100%
Philip K. Ryan*	6/6	100%
Jay Ralph	6/6	100%
Sir Paul Tucker	6/6	100%
Susan L. Wagner**	2/2	100%
Larry Zimpleman	6/6	100%

* Joachim Oechslin took over as chair from Philip K. Ryan after the AGM 2022.
** Stepped down from Finance and Risk Committee after AGM 2022.

The Finance and Risk Committee annually reviews the Group Risk Policy and proposes it for approval to the Board of Directors. It reviews risk and capacity limits approved by the Group EC as well as their usage across Swiss Re. It reviews the Group's Risk Control Framework and the most important risk exposures in all major risk categories, as well as new products or strategic expansions of Swiss Re's areas of business. It reviews the risk aspects of control transactions that cover the acquisition of equity ownership in legal entities for strategic purposes. In terms of risk and economic performance measurement, it reviews critical principles used in internal risk measurement, valuation of assets and liabilities, capital adequacy assessment and economic performance management. It also reviews capital adequacy and the Group's treasury strategy.

Key focus areas 2022

- Monitored inflation risk in underwriting portfolios and assessed risk mitigation activities
- Assessed claims and insurance market trends and emerging risks, in particular the impact of social inflation and climate change
- Continued to be updated on the developing cyber threat landscape and Swiss Re's cyber security and data protection processes and maturity
- Reviewed regulatory risk developments

Investment Committee

Members in 2022	Meeting attendance	
Susan L. Wagner, Chair	5/5	100%
Raymond K.F. Ch'ien*	2/2	100%
Joachim Oechslin	5/5	100%
Jay Ralph	5/5	100%
Sir Paul Tucker	5/5	100%
Jacques de Vaucleroy	5/5	100%

* Board member up to AGM 2022.

The Investment Committee endorses the strategic asset allocation and reviews tactical asset allocation decisions. It reviews the performance of the financial assets of Swiss Re and endorses or receives information on participations and principal investments.

It reviews the risk analysis methodology as well as the valuation methodology related to each asset class and ensures that the relevant management processes and controlling mechanisms in Asset Management are in place.

Key focus areas 2022

- Monitored macro-economic and financial market developments
- Oversaw the strategic asset allocation positioning, risk usage and investment performance
- Continued to monitor the Responsible Investing strategy
- Reviewed the Asset Management operating platform and operational risks

Board member qualifications
The Board of Directors ensures for its composition that the necessary qualifications and skills are represented among its members to fulfil its oversight responsibility and enable sound and independent decision-making. The Board aims to assemble a balance of knowledge in various key areas such as Reinsurance, Insurance, Financial Services, Asset Management, Risk Management, Finance, Audit, Human Resources, Compensation, Corporate Governance and Regulatory as well as regional and managerial expertise. Please refer to the table below for an overview on the representation of these skills in the Board. The mandate also demands significant commitment and availability. Furthermore, diversity considerations with regards to, among others, gender, age, nationality, race, ethnicity and regional representation are a priority for the Board composition. The selection of new Board members must additionally be guided by the principles of inclusion, transparency and the avoidance of conflicts of interest.

Succession planning
The Governance and Nomination Committee supports the Board of Directors with the succession planning at both Board and Group EC level. It regularly reviews the qualifications and skills represented in the Board and aligns them with best practice developments, stakeholder demands and changing business needs. It submits recommendations to the Board of Directors, which decides on the selection criteria used to assess potential candidates for Board membership. The Governance and Nomination Committee initiates the evaluation of potential new Board members in a timely manner with the continued aim to ensure the Board members have the desired expertise and experience as well as with a particular focus on gender diversity. The Governance and Nomination Committee submits recommendations to the Board of Directors for new Board members. It is the Board which nominates candidates for Board membership for election and re-election by the AGM. It aims to ensure that the Board retains an adequate size and well-balanced composition.

Self-assessment
An open, transparent and critical board room culture forms the basis for the Board of Directors' annual review of its own performance and effectiveness. The Board of Directors annually evaluates its work and the performance of the Chairman. The self-assessment includes a critical review of the Board's composition, organisation and processes, as well as the Board's responsibilities and duties. In addition, they evaluate if the set goals for the year were achieved. The Board discusses these topics and defines take-aways which are incorporated into the goals for the following year, considered for the Board governance as well as for succession planning. Each Board committee also conducts an annual review of their work against their pre-set goals for the year.

Board members' training
In a fast-paced ever-challenging environment, keeping up with new developments and advancing its knowledge and insights is key for the Board of Directors. Educational sessions and deep dives form an integral part of the Board's agenda each year. Each Board member also has the opportunity to have individual educational sessions at any time with key executives and experts on specific topics of interest and value. In 2022, the Board focused on learning more about the planned adoption of IFRS in 2024, Swiss Re's Group Sustainability Strategy and the revised Swiss Re compensation framework, as well as on gaining additional insights into the L&H reserving methodology. The onboarding programme for new Board members is an established set of training and materials aimed at ensuring that incoming Board members have a comprehensive overview of the Group's organisation, business and environment. The onboarding programme also includes sessions which are individually tailored to a new Board member's needs.

Board skills, expertise and experience most relevant for Swiss Re
(number of Board members per skill)

Board of Directors and Group EC: separate responsibilities

The Board of Directors has non-delegable duties which rest with the entire Board. It decides, among other topics, on the strategy of Swiss Re and supervises compliance with applicable laws, rules and regulations. The Group EC is responsible for the management of Swiss Re Ltd and the Group as delegated by the Board of Directors. The Board of Directors supervises the Group EC. The Bylaws allocate responsibilities to each of the Board of Directors, the Board committees, the Group EC, the Group CEO and individual Group EC members.

For an overview of the key responsibilities of the Board of Directors and the Group EC, please refer to the Bylaws or the Swiss Re website.

Board responsibilities
www.swissre.com/boardresponsibilities

Management responsibilities
www.swissre.com/ecresponsibilities

Bylaws (Swiss Re Ltd)
www.swissre.com/bylaws

Information and control instruments towards the Group EC

The Board of Directors supervises the Group EC and monitors its performance through various reporting and controlling instruments. It keeps itself informed about the Group EC activities in various ways.

The Group CEO, other members of the Group EC and additional executives provide regular reports to the Board of Directors and to the Board committees. Reported topics include business developments and transactions, claims, reserving, reserve movements, corporate developments, key projects, financial highlights from an accounting as well as from an economic perspective, liquidity, treasury activities, the Swiss Solvency Test (SST), the Own Risk and Solvency Assessment (ORSA), performance of Swiss Re and segments against pre-defined financial targets, analyses of the impact of management actions, challenges, risk, legal, compliance, internal audit, tax, regulatory developments, or outlooks for the insurance, reinsurance and financial markets.

The Group CEO attends all the Board and Board committee meetings as a participant. Other Group EC members attend meetings upon invitation by the Chairman. Additionally, the Chairman meets regularly with the Group CEO and with other Group EC members and executives. The chairpersons of the Board committees meet regularly with Group EC members and additional executives regarding the responsibilities of the respective Board committee.

Please refer to page 97 for more information on Group EC and further executives' participation in Board and Board committee meetings.

The Group CEO and other Group EC members update the Chairman and the Board of Directors about any extraordinary business development or event in a timely manner.

Risk Management

The Board of Directors keeps itself abreast of key risk themes and receives the following annual reports from Group Risk Management: the Swiss Solvency Test Report, the Swiss Re Liquidity Report, the SONAR Report on emerging risks, the Sustainability Report as well as the Own Risk and Solvency Assessment Report.

In addition, Group Risk Management provides the Finance and Risk Committee with regular Group risk updates from the Group CRO, semi-annual reports on derivative use as well as annual reports on global regulatory risk.

The Investment Committee receives quarterly reports on financial risk management. These reports cover compliance with the Group's risk tolerance criteria, major changes in risk and capital adequacy measures and a description of the Group's main risk issues, including related risk management actions.

Both committees regularly report to the entire Board of Directors.

For further information on Swiss Re's Risk Management, please see the Risk and Capital Management Report on pages 48–75 of the Financial Report 2022 (for Risk Management in particular, see pages 59–64).

Group Internal Audit

As an independent assurance function, Group Internal Audit (GIA) provides independent and objective assurance that assists the Board of Directors and Group EC in protecting Swiss Re's assets, reputation and sustainability. GIA performs audit activities designed to assess the adequacy and effectiveness of the Group's internal control systems, and to add value through improving the Group's operations.

GIA has a dedicated quality assurance team who perform quality reviews on all activities. GIA is regularly (at least every five years) reviewed by an external, independent party that provides its report directly to the Chair of the Audit Committee.

GIA offers a suite of audit products that are tailored to the nature of the assurance goal and deliver comprehensive messages to management over end-to-end processes and their control environment. GIA's continuous risk assessment process (which utilises data analytics and external data factors) drives the allocation of GIA's resources, the audit proposals and prioritisation. GIA continuously extends the use of data analytics and automation within its audit processes. GIA aspires to be critical thinkers who lead from every seat, challenge the status quo, understand risk and demonstrate that they are responsive to risk.

Quarterly, the Head of GIA submits to the Audit Committee and relevant legal entity audit committees GIA's risk-based Audit Plan for the upcoming quarter for approval. Any significant deviation from the formally approved Audit Plan must be communicated to the Audit Committee and relevant legal entity audit committees through progress reports. The Head of GIA provides all written audit reports, identifying issues and management actions, to the Audit Committee, relevant legal entity audit committees, senior management and Swiss Re's external auditor on a regular basis. GIA monitors and verifies that management's actions have been effectively implemented. Significant issues, and issues that have not been effectively corrected, are highlighted to the Audit Committee and relevant legal entity audit committees.

Board of Directors and Group EC compensation

Please refer to the Compensation Report beginning on page 116 of this Financial Report for information on compensation of and shareholding programmes for the Board of Directors and Group EC members (including authorities and procedures for determining the same, pages 123–124) as well as for loans granted to them (pages 127 and 135) and for provisions of the Articles of Association relating to these matters (page 123).

Executive Management

The Board of Directors has delegated the management of Swiss Re Ltd and the Swiss Re Group to the Group Executive Committee.

Members of the Group Executive Committee

The Group Executive Committee (Group EC) consisted of the following 13 members as of 31 December 2022:

Name	Nationality	Age	Function	Appointed in current role	Member of the Group EC since (if different from appointment in current role)
Christian Mumenthaler	Swiss	53	Group Chief Executive Officer	July 2016	January 2011
Urs Baertschi	Swiss, German	47	CEO Reinsurance Europe, Middle East and Africa (EMEA)/Regional President EMEA	September 2019	
Andreas Berger	German	56	CEO Corporate Solutions	March 2019	
John R. Dacey	American	62	Group Chief Financial Officer	April 2018	November 2012
Cathy Desquesses	French	50	Group Chief Human Resources Officer & Head Corporate Services	July 2021	
Guido Fürer	Swiss	59	Group Chief Investment Officer	November 2012	
Hermann Geiger	German, Swiss	59	Group Chief Legal Officer	January 2009	July 2019
Jonathan Isherwood	British	56	CEO Reinsurance Americas/ Regional President Americas	April 2020*	August 2020
Pravina Ladva	British	52	Group Chief Digital & Technology Officer	January 2022	
Thierry Léger	Swiss, French	56	Group Chief Underwriting Officer	September 2020	January 2016
Paul Murray	British	52	Chief Executive Officer Reinsurance APAC/ Regional President APAC	April 2022	
Moses Ojeisekhoba	Nigerian, British	56	CEO Reinsurance	July 2016	March 2012
Patrick Raaflaub	Swiss, Italian	57	Group Chief Risk Officer	September 2014	

* Appointment as Regional President Americas effective August 2020.

The following Group EC member stepped down during 2022:

Name	Nationality	Age	Function	Stepped down
Russell Higginbotham	British	55	CEO Reinsurance Asia/Regional President Asia	31 March 2022

Biographies of former Group EC members
www.swissre.com/formergroupecmembers

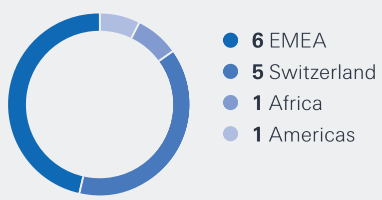
Group EC responsibilities

The Board of Directors has delegated the management of Swiss Re Ltd and the Group to the Group EC. Such delegated tasks are within the responsibility of the entire Group EC. The Group EC discharges its responsibilities as a joint body, except for responsibilities delegated to the Group CEO and further Group EC members. For detailed information on the Group EC and individual members' responsibilities please refer to:

Bylaws (Article 16)
www.swissre.com/bylaws

Management responsibilities
www.swissre.com/ecresponsibilities
www.swissre.com/ecmembersresponsibilities

Regional representation



Group EC key focus areas 2022

- Geopolitical and macroeconomic challenges: steering the Group through a time of escalating political tensions and war as well as the economic reverberations thereof
- Underwriting quality: clear focus on sound underwriting decisions amid an inflationary environment and rising interest rates
- Financial reporting basis: continuing to set strong foundations for Swiss Re to adopt IFRS as its reporting framework as of 1 January 2024
- Global resilience: reinforcing our clients and partners' resilience as they continue to face several challenges, including those posed by climate change

Christian Mumenthaler

Group Chief Executive Officer

Professional experience

Christian Mumenthaler started his career in 1997 as an associate at Boston Consulting Group. He joined Swiss Re in 1999 and was responsible for key company projects. In 2002, he established and headed the Group Retro and Syndication unit. Christian Mumenthaler served as Group Chief Risk Officer between 2005 and 2007 and was Head of Life & Health between 2007 and 2010. In January 2011, he was appointed Chief Marketing Officer Reinsurance and member of the Group Executive Committee and became Chief Executive Officer Reinsurance in October 2011. In July 2016, Christian Mumenthaler was appointed Group Chief Executive Officer.

Educational background

- PhD in Physics, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

External mandates

- Chairman of the Geneva Association
- Co-Chair of WEF Alliance of CEO Climate Leaders
- Board member of economiesuisse
- Member of the Pan-European Insurance Forum, the Global Reinsurance Forum, the Steering Committee of the Insurance Development Forum, Insurance Europe's Reinsurance Advisory Board and the Board of Trustees of the St. Gallen Foundation for International Studies

Urs Baertschi

Chief Executive Officer Reinsurance EMEA/
Regional President EMEA

Professional experience

Urs Baertschi began his career at Swiss Re Capital Partners and Securitas Capital in a variety of private equity and corporate development roles. In 2001, he joined Cutlass Capital, a private equity firm focused on the health care industry, where he was appointed a Principal in 2006. In 2008, Urs Baertschi rejoined Swiss Re as the Head of US Direct Private Equity and was appointed Head of Principal Investments and Acquisitions Americas in 2010. In this role, he was responsible for the financial and strategic direct investments as well as corporate development transactions in the Americas. In 2016, Urs Baertschi became the President of Reinsurance, Latin America, with overall responsibility for the business in the region. In September 2019, he assumed the role of Chief Executive Officer Reinsurance EMEA and Regional President EMEA and became member of the Group Executive Committee.

Educational background

- Bachelor's degree in Economics, University of Pennsylvania, USA
- Bachelor's degree in International Relations, University of Pennsylvania, USA

Andreas Berger

Chief Executive Officer Corporate Solutions

Professional experience

Andreas Berger started his insurance career in 1995 as a leadership trainee at Gerling Group, followed by various leadership positions at Boston Consulting Group. He returned to Gerling in 2004 as Head of Commercial Business and International Programs and Affinity Business. When Allianz Global Corporate & Specialty SE (AGCS) was created in 2006, Andreas Berger became its Global Head of Market Management & Communication, where he established an overall market management function for the corporate client segment and served as AGCS spokesperson. In 2009, he was appointed AGCS Chief Executive Officer, Regional Unit London, with responsibility for the UK, Ireland, South Africa, the Middle East and Benelux. In 2011, Andreas Berger joined the AGCS Board of Management as Chief Regions & Market Officer (Central & Eastern Europe, Mediterranean, Africa and Asia). In addition, he assumed responsibility for the Global Broker Channel Distribution for the Allianz Group. Andreas Berger joined Swiss Re in March 2019 as Chief Executive Officer Corporate Solutions and member of the Group Executive Committee.

Educational background

- Master's degree in Law, Justus Liebig University Giessen, Germany
- Master's degree in Business Administration, Université de Paris-Dauphine (IX), France/ Justus Liebig University Giessen, Germany

External mandates

- Chairman of the Executive Council of the International Insurance Society
- Honorary appointment as member of the selection committee of the Collège des Ingénieurs
- Board member of the Latin American Chamber of Commerce in Switzerland
- Board member of Advance, Gender Equality in Business

John R. Dacey

Group Chief Financial Officer

Professional experience

John R. Dacey started his career in 1986 at the Federal Reserve Bank of New York. From 1990 to 1998, he was a consultant and subsequently Partner at McKinsey & Company. He joined Winterthur Insurance in 1998 and was its Chief Financial Officer from 2000 to 2004 as well as a member of its Group Executive Board until 2007. From 2005 to 2007, he was Chief Strategy Officer and a member of its risk and investment committees. He joined AXA in 2007 as Group Regional Chief Executive Officer and Group Vice Chairman for Asia-Pacific as well as a member of their Group Executive Committee. John R. Dacey joined Swiss Re in October 2012 and was appointed Group Chief Strategy Officer and member of the Group Executive Committee in November 2012. He also served as Chairman Admin Re® from November 2012 to May 2015. He was appointed Group Chief Financial Officer effective April 2018.

Educational background

- Bachelor's degree in Economics, Washington University, St. Louis, USA
- Master's degree in Public Policy, Harvard University, Cambridge, USA

External mandates

- Member of the Board of Directors China Pacific Insurance (Group) Co. Ltd.*
- Member of the Board of Directors FWD Group Holdings Ltd
- Member of the Board of Directors FWD Group Ltd
- Member of the Board of Directors FWD Ltd

* Listed company

Cathy Desquesses

Group Chief Human Resources Officer &
Head Corporate Services

Professional experience
Cathy Desquesses started her career at General Electric in 1998, where she held various management roles across different business lines and countries. In 2010, she became the Global HR Leader for GE's Oil and Gas Industry unit in Florence, Italy. She then served from 2012 to 2014 as HR Operations Leader Europe at GE Corporate, also in Florence, Italy, from 2014 to 2016 as Global HR Leader for GE's Oil and Gas business sector in Boston MA, USA, and finally from 2016 to 2018 as Global HR Leader for GE Power in Baden, Switzerland. In 2018, she joined Sodexo in Paris, France, as Chief People Officer. Cathy Desquesses joined Swiss Re in June 2021, and was appointed Group Chief Human Resources Officer and member of the Group Executive Committee effective July 2021. Effective 1 January 2022, she also assumed responsibility for Corporate Services (comprising Group Communications and Corporate Real Estate & Services).

Educational background
- DESS Labour and Employment Law, Pantheon-Assas University, Paris, France
- Master's degree in Labour and Employment Law, Law School of Rennes, Rennes, France

Guido Fürer

Group Chief Investment Officer

Professional experience
Guido Fürer commenced his career at Swiss Bank Corporation/O'Connor & Associates in 1990, where he held leading positions in option trading at its capital market division. He joined Swiss Re in 1997 as Managing Director at Swiss Re New Markets, and from 2001 to 2004, he worked for Swiss Re's Private Equity unit. In 2004, he joined Asset Management with responsibility for tactical asset allocation prior to assuming the role of Head of Strategic Asset Allocation. Guido Fürer has led Swiss Re Group Asset Management since his appointment as Group Chief Investment Officer and member of the Group Executive Committee in November 2012. In 2019, he additionally assumed the roles of Swiss Re Country President Switzerland and Chairman of the Swiss Re Strategic Council.

Educational background
- Master's degree in Economics, University of Zurich, Switzerland
- PhD in Financial Risk Management, University of Zurich, Switzerland
- Executive MBA from INSEAD, Fontainebleau, France

External mandates
- Member of the Advisory Board of the Department of Banking and Finance, University of Zurich, Switzerland
- Member of the Board of Trustees of the G&B Schwyzer-Winiker Stiftung
- Member of the Board of Trustees and Treasurer of the Swiss Institute for Art Research (SIK-ISEA)

Hermann Geiger

Group Chief Legal Officer

Professional experience
Hermann Geiger started his professional career in 1990 as a law clerk and qualified attorney at law, working with various major law firms, specialising in financial services transactions and regulation, capital markets, corporate and litigation. In 1995, he joined GE Insurance Solutions where he served as General Counsel Europe & Asia in the insurance business of General Electric. Following the acquisition of GE Insurance Solutions by Swiss Re in 2006, Hermann Geiger joined Swiss Re as Regional General Counsel Europe. In 2009, he assumed the global position as Head Legal & Compliance and Group Chief Legal Officer. As of July 2019, Hermann Geiger was appointed member of the Group Executive Committee.

Educational background
- PhD in Law, University of Constance, Germany
- PhD in Economics and Political Sciences, University of the German Federal Armed Forces Munich, Germany
- LL.M. (Master of Laws), University of Birmingham, United Kingdom

External mandates
- Board member of the European General Counsel Association
- Advisory Board member of ARIAS Europe
- Member of the Swiss-American Chamber of Commerce's legal committee

Jonathan Isherwood

Chief Executive Officer Reinsurance Americas/Regional President Americas

Professional experience
Jonathan Isherwood started his career in 1991 with Ernst & Young, and moved to GE Capital as an audit/consulting leader in 1994. In 2000, he joined GE Insurance Solutions to build the Risk Management team and thereafter led the Global Property division. In 2005, he became CEO of GE Frankona AG and Chairman of the Board of ERC Copenhagen. In addition, he had global responsibility as President of Product Strategy of GE Insurance Solutions. Following the acquisition of GE Insurance Solutions by Swiss Re in 2006, Jonathan Isherwood joined Swiss Re as Head of Product Integration. From 2007 he led the Claims, Accounting & Liability Management division, and in 2013 assumed the role of Head Globals Reinsurance. Jonathan Isherwood was appointed Chief Executive Officer Reinsurance Americas with effect from April 2020, and Regional President Americas and member of the Group Executive Committee as of August 2020.

Educational background
- Master's degree in Economics, Cambridge University, United Kingdom

Pravina Ladva

Group Chief Digital & Technology Officer

Professional experience

Pravina Ladva started her career at Abbey National/ Santander, gaining experience in the financial technology sector, with responsibility for various areas from strategy to delivery and financial results. She joined Barclaycard in 2008 and held various roles including COO Digital Marketplace and CIO Barclaycard Business Solutions. During this time, she led B2B and B2B2C technology and change teams, as well as the build and launch of a digital marketplace platform in the UK. Pravina Ladva joined Swiss Re in 2017 as Chief Technology and Operations Officer for iptiQ, Swiss Re's digital white-label provider of property & casualty and life & health insurance, and in July 2020 assumed the role of Swiss Re Group Digital Transformation Officer. Pravina Ladva was appointed Group Chief Digital & Technology Officer and member of the Group Executive Committee as of 1 January 2022.

Educational background

- Bachelor's Degree in History, Saint David's University College, Wales

External mandates

- Member of the Council of Essex University

Thierry Léger

Group Chief Underwriting Officer

Professional experience

Thierry Léger started his career in the civil construction industry before joining Swiss Re as an engineering underwriter in 1997. In 2001, he moved to Swiss Re New Markets, providing non-traditional solutions to insurance clients. Between 2003 and 2005, he was a member of the executive team in France as leader of the sales team. From 2006, Thierry Léger assumed increasing responsibility for Swiss Re's largest clients, ultimately becoming the Head of the newly created Globals Division in 2010 and a member of the former Group Management Board. In 2013, Thierry Léger became Head of Life & Health Products Reinsurance. As of January 2016, he was appointed Chief Executive Officer Life Capital and member of the Group Executive Committee. Starting in September 2020, Thierry Léger assumed the role of Group Chief Underwriting Officer.

Educational background

- Master's degree in Civil Engineering, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland
- Executive MBA, University of St. Gallen, Switzerland

Paul Murray

Chief Executive Officer Reinsurance APAC/
Regional President APAC

Professional experience

Paul Murray began his career in 1994, progressing through various insurance industry roles in Scotland, South Africa and eventually London, where he worked for an actuarial consultancy. He joined Swiss Re in 2003 as a Marketing Actuary, and was appointed as Managing Director, Head of Life & Health Products, UK, Ireland & Africa in 2006. From 2010 to 2014, he held the position of Managing Director, Head of Life & Health Products, Asia, while based in Hong Kong. In 2014, he returned to London where he was Chief Pricing Officer and Head of the Life and Health Products Centre. Since 2018, he has been Global Head of Life and Health Products, responsible for supporting the transformation of insurance markets globally, and additionally leading the Swiss Re Sustainability initiative for Life and Health. Paul Murray was appointed Chief Executive Officer Reinsurance Asia and Regional President Asia, and member of the Group Executive Committee, as of 1 April 2022.

Educational background

- Master's degree with honours in Mathematics, Glasgow University, United Kingdom
- Post-graduate Diploma in Actuarial Science, Heriot Watt University, United Kingdom
- Fellow of the Faculty of Actuaries (FFA)

Moses Ojeisekhoba

Chief Executive Officer Reinsurance

Professional experience

Moses Ojeisekhoba started his career in insurance as a registered representative and agent of The Prudential Insurance Company of America in 1990. From 1992 to 1996, he was a Risk and Underwriting Manager at Unico American Corporation. He then joined the Chubb Group of Insurance Companies as regional Underwriting Manager and, in 1999, became Corporate Product Development Manager in New Jersey and thereafter moved to London as Strategic Marketing Manager for Chubb Europe. In 2002, he was appointed International Field Operations Officer for Chubb Personal Insurance before becoming Head Asia-Pacific in 2009, a position he remained in until he joined Swiss Re. Moses Ojeisekhoba joined Swiss Re in February 2012 and was appointed Chief Executive Officer Reinsurance Asia, Regional President Asia and member of the Group Executive Committee in March 2012. In July 2016, Moses Ojeisekhoba was appointed Chief Executive Officer Reinsurance.

Educational background

- Master's degree in Management, London Business School, United Kingdom
- Bachelor of Science in Statistics, University of Ibadan, Nigeria

External mandates

- Member of the Board of Directors of Jones Lang LaSalle Incorporated*

* Listed company

Patrick Raaflaub

Group Chief Risk Officer

Professional experience

Patrick Raaflaub began his career as an economist at Credit Suisse. He then became a founding member of a consulting start-up and research fellow at the University of St. Gallen. He joined Swiss Re in 1994 and was appointed Chief Financial Officer of Swiss Re Italia SpA in 1997, and then became Divisional Controller Americas Division from 2000. He worked as Head of Finance Zurich from 2003, then Regional Chief Financial Officer Europe and Asia from 2005. From 2006, he was Head of Group Capital Management, where he was responsible for capital management at Group level and global regulatory affairs. In 2008, he joined the Swiss Financial Market Supervisory Authority FINMA as Chief Executive Officer. Patrick Raaflaub returned to Swiss Re as Group Chief Risk Officer and member of the Group Executive Committee in September 2014.

Educational background

- PhD in Political Science, University of St. Gallen, Switzerland

External mandates

- Member of the Board of Directors CSS Holding AG
- Member of the Managing Board Swiss Insurance Association (SIA)

Management contracts

Swiss Re Ltd has not entered into any management contracts with any third parties.

External mandates

All Group EC members comply with Swiss Re's requirements related to external mandates. For further information please refer to:

Articles of Association (Article 26)
www.swissre.com/articles

Bylaws (Article 20.4)
www.swissre.com/bylaws

Shareholders' participation rights

Shareholders may attend the Annual General Meeting 2023 in person.

Voting rights, restrictions
Swiss Re Ltd does not have any voting rights restrictions in place. There are limitations with regards to nominee registrations as set out on page 86. One share entitles shareholders to one vote. However, shareholders are entitled to exercise their voting rights only for shares which have been registered in the share register no later than four working days before the shareholders' meeting.

Registration in the share register
To be registered, a shareholder generally must declare that he or she acquired the Swiss Re Ltd shares in his or her own name and for his or her own account (see page 86 for further details). Swiss Re Ltd's share register is an internal, non-public register which is subject to confidentiality and data privacy regulations.

Representation
Each shareholder registered with voting rights is allowed to participate at shareholders' meetings. If the shareholder does not wish to attend personally, he or she may have the shares represented at the shareholders' meetings by another person authorised in writing or by the Independent Proxy. The Independent Proxy is elected by the AGM for a term of office until completion of the following AGM. For the purpose of representation, the shareholder can issue voting instructions for each of the agenda items. The shareholder also has the option to give instructions electronically via the Nimbus ShApp platform. Such votes are also represented by the Independent Proxy.

Shareholders' meetings
Annual General Meeting 2022
The AGM 2022 of Swiss Re Ltd took place on the basis of the provisions of the Swiss Federal Council's Ordinance 3 on Measures to Combat the Coronavirus (COVID-19 Ordinance 3). As a result, shareholders could not attend the AGM in person. Shareholders were able to exercise their right to vote (including on elections) indirectly, via representation by the Independent Proxy. Following the AGM, a virtual shareholder information event took place. The Chairman and the Group CEO spoke to the shareholders and answered the shareholders' questions, which had been submitted prior to the event. Furthermore, the Group Company Secretary presented the results of the AGM elections and votes.

Invitation
The Board of Directors convenes the shareholders' meetings through a notice published in the Swiss Official Gazette of Commerce at least 20 days before the date of the meeting. The notice states the day, time and place of the shareholders' meetings, along with the agenda and proposals. The ordinary shareholders' meeting must take place within six months after the close of the financial year on 31 December. The Board of Directors convenes extraordinary shareholders' meetings, if necessary or if required by a shareholders' meeting resolution or by one or more shareholders with voting rights holding at least 10% of the share capital.

Request to place an item on the agenda
Shareholders with voting rights holding shares with a nominal value of at least CHF 100 000 may, no later than 45 days before the date of the shareholders' meeting, request in writing that a particular item, together with the relevant proposals, is included on the agenda.

Statutory quorums
The shareholders' meetings can pass resolutions regardless of the number of shareholders present or shares represented by proxies. The resolutions require an absolute majority of the votes validly cast, excluding blank and invalid ballots, except where the law requires otherwise.

For further information on shareholders' participation rights, please refer to the Articles of Association.

Annual General Meeting 2023
The Board of Directors decided to hold the Annual General Meeting (AGM) 2023 in the Hallenstadion, Zurich. Shareholders may attend in person. Please refer to the link below to view the AGM 2023 invitation as well as for further information.

AGM
www.swissre.com/agm2023

Articles of Association
www.swissre.com/articles

Changes of control and defence measures

Swiss Re has no opting up or opting out provision in place.

Duty to make an offer
According to the Swiss Financial Market Infrastructure Act (FMIA), anyone who, directly or indirectly or acting in concert with third parties, acquires Swiss Re Ltd shares, which, added to the shares already owned, exceed the threshold of 33⅓% of the voting rights, whether exercisable or not, must make an offer to acquire all Swiss Re Ltd shares. A company may, in its articles of association, raise this threshold to up to 49% of the voting rights (opting up) or, under specific circumstances, disapply the duty to make an offer (opting out). Swiss Re Ltd has not introduced such provisions.

Clauses on changes of control
The mandates and employment contracts of the members of the Board of Directors, the Group EC and further executive management members do not contain any provisions such as severance payments, notice periods of more than 12 months, additional pension fund contributions or the treatment of deferred compensation that would benefit them in a change of control situation.

Unvested deferred compensation may vest and employee participation plan rules may be amended upon a change of control. In such an event, the rights of members of the Board of Directors and the Group EC, as well as of further executive management members, are identical to those of all other employees. Further information on clauses on changes of control are provided in the Compensation Report on page 130.

External auditors

KPMG was re-elected after their first-year audit in 2021.

Duration of the mandate and term of the lead auditors
Based on Swiss Re Ltd's Articles of Association, the shareholders annually elect the external auditor. At the AGM on 13 April 2022, the shareholders re-elected KPMG, Zurich, as the external auditor for Swiss Re Ltd and the Swiss Re Group, for a one-year term of office, for the financial year 2023. KPMG had initially been elected as Swiss Re's external auditor for the financial year 2021. KPMG fully meets the strict requirements of Swiss Re. The Audit Committee has received confirmation from KPMG that it complies with the relevant independence requirements to exercise the mandate as Swiss Re's external auditor.

Frank Pfaffenzeller and Eric Elman have served as KPMG's lead auditors since KPMG took office in 2021. In line with the Swiss Code of Obligations and to foster external auditor independence, each of the two lead auditors rotates out of his or her role after seven years.

Unlike in the European Union, there is no law in Switzerland that provides for a mandatory rotation of the external auditor after a certain number of years. The Audit Committee closely monitors related regulatory developments in the EU and elsewhere.

Supervision of the external audit process
The external auditor is accountable to the Audit Committee, the Board of Directors and ultimately to the shareholders. The Board of Directors reviews the external auditor's professional qualifications. The Audit Committee assists the Board of Directors in its oversight. The Audit Committee liaises closely with the external auditor. The lead auditors participate as advisors at all Audit Committee meetings (for more information, see page 97). The Audit Committee reviews and approves all planned audit services and any non-audit services provided by the external auditor. It discusses the results of annual audits with the external auditor, including reports on the financial statements, necessary changes to the audit plans and critical accounting policies. The external auditor shares with the Audit Committee its findings on the adequacy of the financial reporting process and the efficacy of the internal controls. It informs the Audit Committee about any differences of opinion between the external auditor and management encountered during the audits or in connection with the preparation of the financial statements.

Fees paid to the auditor

The fees (excluding value added tax) for professional services provided by KPMG in 2022 were as follows:

USD millions	2021	2022*
Audit fees	**21.2**	27.5
Non-audit fees	**1.5**	6.4
Audit-related assurance services	0.4	5.5
Services relating to corporate finance transactions	–	0.3
Tax-related services	0.2	0.1
Other non-audit services	0.9	0.5
Total fees	**22.7**	33.9

* In 2022, audit fees also included local IFRS audit preparation activities. Audit-related assurance services primarily comprised pre-audit work related to the Group IFRS implementation as well as mandates required by Swiss Re's regulators. Services relating to corporate finance transactions consisted of comfort letters for Swiss Re's debt issuance programme and other non-audit services mainly covered control assessments and sustainability report reviews.

Evaluation of the external auditor
The Audit Committee is responsible for recommending an audit firm to the Board of Directors for election by the shareholders. In order to be able to select and propose an audit firm for its election proposal to the shareholders and in line with good corporate governance, the Audit Committee thoroughly evaluates the credentials of the external auditor annually based on the following key criteria: investment in the client relationship, quality of delivery, quality of the people and services and focus on client value. The Audit Committee presents the findings of the evaluation to the Board of Directors. The Audit Committee's assessment of the external auditor is furthermore based on the external auditor's qualifications, independence and performance. The Audit Committee also evaluates the performance of the lead auditors annually.

Qualifications
The external auditor submits, at least once a year, a report to the Audit Committee describing its own quality control, including any material issues raised by its most recent internal reviews or inquiries or investigations by governmental or professional authorities within the preceding five years, as well as any steps taken to deal with any such issues.

Independence
At least once a year, the external auditor provides a formal written statement delineating all relationships with Swiss Re that might affect its independence. Any disclosed relationships or services that might interfere with the external auditor's objectivity and independence are reviewed by the Audit Committee, which then recommends appropriate action to be taken by the Board of Directors.

Performance
This assessment measures the external auditor's performance against a number of criteria, including understanding of Swiss Re's business; technical knowledge and expertise; comprehensiveness of the audit plans; quality of the working relationship with management and clarity of communication. It is compiled based on the input of key people involved in the financial reporting process and the observations of the Audit Committee members.

KPMG provided reports on selected topics at each of the Audit Committee meetings during the reporting year 2022. Please see the table below for further details.

Reporting of the external auditor to the Audit Committee in 2022

Date	Report provided by KPMG	Topics covered
26 January	2021 Audit Update	Audit update, including updates to the 2021 Audit Plan, actuarial and other matters (including investments, tax and internal controls)
23 February	Preliminary 2021 Audit Results	Report on preliminary results of interim procedures, including actuarial and other matters and draft 2021 Swiss Re Ltd (SRL) and Swiss Reinsurance Company Ltd (SRZ) Group US-GAAP Audit Reports
16 March	2021 Audit Results	2021 Audit Results, including actuarial and other matters, innovation in the Swiss Re global audit, audit results SRL, SRZ standalone financial statements and SRL Compensation Report and 2021 Fee Reporting
11 April	2021 Internal Controls Reports	Summary of KPMG's control findings and of non-audit and audit-related services
4 May	Q1 2022 Audit Report	Report on preliminary results of interim procedures, including actuarial and other matters
28 July	Q2 2022 Audit Report	Report on preliminary results of interim procedures, including actuarial and other matters, response to 2021 audit effectiveness survey, required communications (engagement and management representation letters) as well as 2021 Audit Observations
6 September	IFRS Conversion Update 2022 Audit Plan	Overview of KPMG's IFRS group engagement and IFRS challenges and insights gained Overview of key elements of audit approach (including audit fees)
27 October	Q3 2022 Audit Report	Report on preliminary results of interim procedures, including actuarial and other matters and an update on salient IFRS topics

Information policy

Swiss Re provides regular, open and transparent information to its shareholders and further stakeholders.

Communications

Swiss Re maintains regular, open and consistent communication with its shareholders, the financial community and other stakeholders on financial and business performance, strategy and business activities through analyst and media conferences and calls, road shows, news releases and corporate reports. The Half-Year Report and Annual Report are available on Swiss Re's website. Furthermore, Swiss Re's Financial Condition Report and its Sustainability Report as well as the solvency reports for the regulated entities and first quarter and nine months results are also available online. An annual letter to shareholders by the Chairman outlines Swiss Re's activities and highlights of its financial performance.

Anyone interested has the possibility to subscribe to the Media Relations mailing list to receive ad hoc disclosures and relevant corporate news via email or via the Swiss Re website. Contact details are provided on page 336.

Swiss Re provides news and research, publications, videos and podcasts as well as discussion and analysis related to Swiss Re and the re/insurance industry.

The Swiss Official Gazette of Commerce *(Schweizerisches Handelsamtsblatt)* is the official medium for prescribed announcements and official information.

Investor Relations

Throughout the year, the Investor Relations team, often joined by executive management, holds meetings with institutional investors and analysts, including roadshows, conferences and calls. In 2022, many of these interactions were in-person meetings, while hybrid and virtual meetings continued to play an important role, providing extra flexibility and opportunities for engagement.

On 7 April 2022, Swiss Re held its Investors' Day. Group CEO, Christian Mumenthaler, provided an update on the Group Strategy and targets, and Group CUO, Thierry Léger, spoke about the Group's underwriting portfolio and sustainability. Reinsurance CEO Moses Ojeisekhoba and Corporate Solutions CEO Andreas Berger gave a strategic update on their businesses, and Christian Mumenthaler provided a strategic update on iptiQ. Group CFO, John R. Dacey, gave an update on Swiss Re's capital management and outlook for the transition to IFRS in 2024. The event was attended by a wide range of external participants including portfolio managers, buy-side and sell-side analysts.

As aforementioned, the Chairman conducts an annual roadshow to visit and engage in an ongoing dialogue with Swiss Re's largest shareholders.

Close periods

Swiss Re strictly observes close periods in the context of the publication of the Group's financial results. Close periods commence 30 trading days before publication in the case of the quarterly key financial data and the half-year results. The close period in respect of the full year results commences on 1 January of each year. All close periods end on the trading day following the publication. During such close periods, the members of the Board of Directors and all Swiss Re employees are not allowed to trade Swiss Re shares or financial instruments related to such shares. No exceptions are made from these close periods.

2023 close periods

Annual results 2022
1 January – 20 February (9:00 CET)

First quarter 2023 results
20 March – 5 May (9:00 CET)

Half-year results 2023
22 June – 7 August (9:00 CET)

Nine months 2023 results
22 September – 6 November (9:00 CET)

Important dates in 2023

17	February	Annual results 2022
16	March	Publication of: Annual Report 2022 and 2022 EVM results, Sustainability Report 2022 as well as AGM 2023 invitation
17	March	Management Dialogues 2023
12	April	159th Annual General Meeting
4	May	First quarter 2023 results
4	August	Half-year results
3	November	Nine months 2023 results
1	December	Investors' day

Swiss Re Group website
www.swissre.com

All reports and further documents
www.swissre.com/financialinformation

News releases
www.swissre.com/newsreleases

Ad hoc announcements
www.swissre.com/adhocannouncements

Media Relations mailing list
www.swissre.com/media/contacts

Presentations and conference call recordings
www.swissre.com/investors/presentations

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Compensation Report

Swiss Re's compensation framework is designed to attract, motivate and retain top talent, promote sustainable performance and align stakeholder interests.

"The compensation framework aims to promote sustainable performance and long-term shareholder value creation through key performance measures and equity-based compensation."

Jacques de Vaucleroy
Chair Compensation Committee

Report from the Compensation Committee

Dear shareholders,
I am pleased to present the 2022 Compensation Report, which outlines key compensation outcomes and decisions taken by the Compensation Committee.

Compensation Committee activities
During 2022, the Compensation Committee met six times and passed four decisions by circular resolution. The Compensation Committee's activities included:

- Implementing changes to the Swiss Re incentive compensation framework as decided in 2021 and announced in the 2021 Compensation Report for the performance year 2022. These changes further foster a pay-for-performance culture and effectively align stakeholder interests, and include:
  i) a revised process for funding the Group Annual Performance Incentive (API) pool, with a stronger focus on financial performance;
  ii) replacing the cash-based deferral plan (Value Alignment Incentive/VAI) with a share-based deferral plan (Deferred Share Plan/DSP) for which first awards are to be granted in April 2023; and
  iii) aligning Return on Equity (ROE) targets with externally communicated targets as well as implementing a broader vesting range on the relative Total Shareholder Return (TSR) performance condition for the Leadership Share Plan (LSP).

  These changes have no impact on running awards. Further details of all three plans can be found in the section Group compensation framework, 2022 outcomes and 2023 changes.

- Driving performance differentiation and application of pay-for-performance principles at business and individual level to ensure proper recognition of performance.

- Enforcing commitment to equal pay for equal work that is supported by a gender-neutral approach to determining pay for all roles (at all levels throughout the year and across the employee life cycle).

- Ensuring the integration of sustainability/ESG considerations in the compensation framework as one of the drivers of variable cash compensation.

- Evaluating the impact of the change from US GAAP to IFRS and discontinuation of EVM on incentive plans (specifically running VAI and LSP plans) with decisions for these plans to be taken during 2023.

- Alleviating the financial burden of soaring economic inflation and rising cost of living by providing a one-off payment to those who were relatively hit the hardest, which represents almost half of Swiss Re's employees. No such payment was made to senior management or executives.

2022 Group business results and pay for performance

The compensation framework aims to promote sustainable performance and long-term shareholder value creation through key performance measures and equity-based compensation. For 2022, Swiss Re's commitment to pay for performance translated into the following outcomes:

- Overall performance**:** Compensation decisions were made considering Swiss Re's overall performance for the reporting year in which Swiss Re reported a US GAAP net income of USD 472 million and ROE of 2.6%, whereas the Economic Net Worth (ENW) per share growth was at –5.9%. The Group's US GAAP and economic performance declined compared with 2021, mainly driven by the impact of economic inflation on actual and expected claims in property and casualty businesses, mark-to-market impacts on listed equity investments and large natural catastrophe claims above expectations. Property & Casualty Reinsurance (P&C Re) reported a net income of USD 312 million, negatively impacted by higher-than-expected economic inflation, as well as by large natural catastrophe claims above expectations. Nevertheless, P&C Re grew its net premiums earned by 4.1% at stable foreign exchange rates, supported by continued price improvements over the year. P&C Re's normalised combined ratio of 96.9% missed its target of less than 94%. On the EVM side, P&C Re was also impacted by the capital cost parameter update for inflation. Life & Health Reinsurance (L&H Re) reported a net income of USD 416 million, above its target net income of approximately USD 300 million. L&H Re returned to profitability despite COVID-19-related claims of USD 588 million. The economic performance of L&H Re reflects the adverse impact of assumption updates as well as the impact of the internal pandemic risk model update. Corporate Solutions reported a net income of USD 486 million, reflecting the solid underlying business performance as a result of the strong portfolio quality and new business growth in selected focus portfolios. With a combined ratio of 93.1% for the full year, Corporate Solutions outperformed its target of less than 95.0% in 2022.
- Annual bonus**:** 2022 was a challenging year, marked by the war in Ukraine, surging economic inflation, the tail end of the COVID-19 pandemic and elevated natural catastrophe losses. The Group missed two of its five Key Performance Indicators (KPIs) relevant for the Group API pool. The Compensation Committee and the Board of Directors did not exercise any upward or downward discretion. The Group Business Performance Factor decreased from 0.92 to 0.68 for financial year 2022, which led to an overall decrease of the Group API pool by 28.1% compared with 2021. For the Group Executive Committee (Group EC) members, the aggregate API amount (as disclosed) decreased by 42.5% compared with the prior year, reflecting their accountability for the financial results.
- Deferred compensation**:** The VAI 2019 (awarded 2020) performance factor for the Swiss Re Group was 92.8% based on the average 2020–2022 previous years' business performance. The main drivers of the previous years' business losses were COVID-19-related losses, natural catastrophe and man-made losses as well as reserve increases relating to economic inflation. The previous years' business performance further deteriorated due to 2022 updates to the internal pandemic risk model and inflation scenarios.
- Long-term incentive: Outcomes for the Leadership Performance Plan (LPP) 2020 (vesting in March 2023) were below target for the three-year performance period with a combined performance factor of 14.5%.

Shareholder engagement and Annual General Meeting (AGM)

The compensation framework and decisions continued to receive strong support from shareholders. At the AGM on 13 April 2022, shareholders approved all binding compensation-related motions and the 2021 Compensation Report was approved in a consultative vote.

Swiss Re continued to engage directly with shareholders and proxy advisors, such as during the annual Chairman's Roadshow. Swiss Re's compensation framework (including potential changes to the framework), compensation-related decisions and the compensation disclosure approach were discussed. Further details on shareholder engagement are provided in the Corporate Governance Report on pages 80 and 114.

The Compensation Committee decided to disclose the weightings of the non-financial KPIs in the Group CEO scorecard presented in this Compensation Report. The Compensation Committee is grateful for the fruitful engagement and continues to proactively consider shareholders and proxy advisors' expectations.

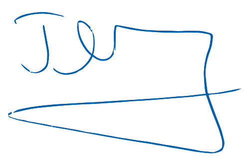
Consistent with last year and in line with Swiss Re Ltd's Articles of Association, shareholders will be asked to vote on the following motions at the AGM 2023:

- Maximum aggregate amount of compensation for the members of the Board of Directors for the term of office from the AGM 2023 to the AGM 2024.
- Maximum aggregate amount of fixed compensation and variable long-term compensation for the members of the Group EC for the financial year 2024.
- Aggregate amount of variable short-term compensation for the members of the Group EC for the financial year 2022.

Furthermore, the Compensation Report will be submitted to the shareholders for a consultative vote.

This Compensation Report complies with applicable laws, rules and regulations, including Articles 14 to 16 of the Ordinance against Excessive Remuneration in Listed Companies limited by Shares.

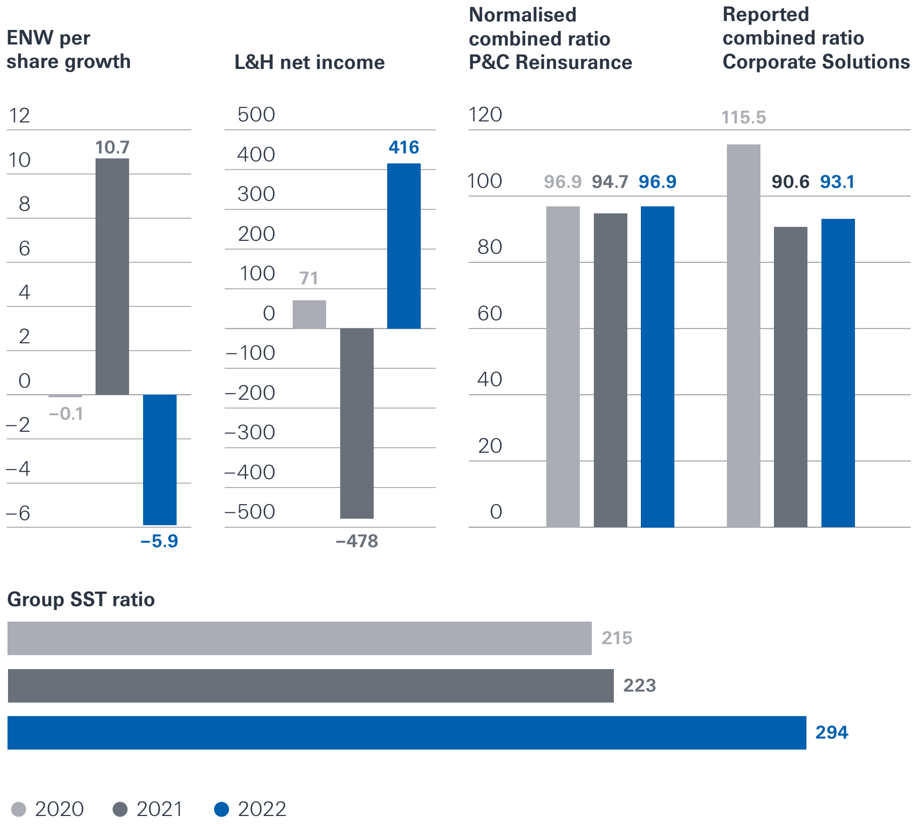
16 March 2023



Jacques de Vaucleroy
Chair Compensation Committee

Financial performance highlights

2022 key financial drivers for variable compensation outcomes



Attribution of group income to key stakeholders

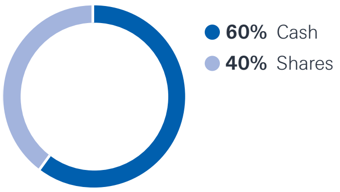
USD millions (unless otherwise stated)	2020	%	2021	%	**2022**	%
Income before tax and variable compensation	–797	100.0%	2 249	100.0%	962	100.0%
Variable compensation	347	–	418	18.6%	319	33.2%
Income tax expense	–266	–	394	17.5%	171	17.8%
US GAAP net income attributable to shareholders	–878		1 437		472	
of which paid out as dividend[1]	1 855	–	1 825	81.1%	1 710	177.8%
of which share buyback	–	–	–	–	–	–
of which added to retained earnings within shareholders' equity	–2 733	–	–388	–	–1 238	–

[1] FY 2022 is estimated based on the average monthly CHF/USD FX rate as of January 2023. The dividend is subject to AGM approval and the amount depends on the final number of dividend eligible shares and FX rates upon dividend payout.

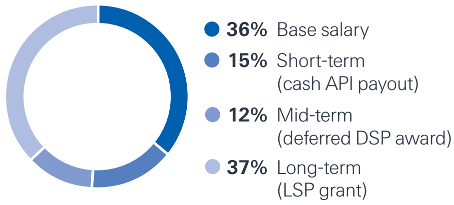
Executive compensation snapshot

Core compensation design elements for the Board of Directors and the Group EC

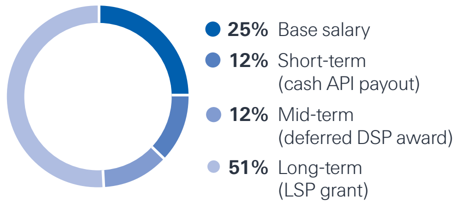
Board of Directors
Pay mix 2022



Group EC (excluding Group CEO)
Pay mix 2022



Group CEO
Pay mix 2022



Compensation design
- No variable or performance-related compensation.
- Compensation awarded 60% in cash and 40% in shares.
- Shares subject to a four-year blocking period.

Compensation design
- Strong pay for performance alignment.
- Balanced mix between short-term and long-term incentives.
- Meaningful deferral levels for key executives: 50% of the short-term incentive is deferred for the Group CEO and 45% for other Group EC members.
- Forfeiture and clawback provisions incorporated in incentive plans.
- Stock ownership guidelines apply.
- Open-ended employment contracts; 12-month notice period.
- No severance clauses/"golden parachutes".
- Same pension arrangements as for other employees.

Group EC ratio of fixed to variable compensation
- The total variable compensation for individual members of the Group EC (including the Group CEO) who were active on the Group EC for the full year 2022 ranged from 54–252% of total fixed compensation. For 2021, the ratio ranged from 59–305%.

Key Group EC compensation framework changes implemented for performance year 2022

Item	Change	Rationale
Annual bonus pool setting process	Simplified the funding process with a stronger focus on financial performance outcomes. Qualitative assessment (including sustainability and risk and control behaviours, etc.) continues to impact the pool distribution to each Business Unit/Group Function and individual bonus allocations as relevant.	Further strengthen the pay-for-performance approach.
Mandatory deferral	Introduced deferral in the form of share units settled in shares after a three-year vesting period, making the value at vesting dependent on Swiss Re's share price development.	Better alignment with shareholder interests and Swiss Re's long-term risk profile.
Long-term incentive	Further aligned the metrics with externally communicated targets, making the incentive plan more challenging. For relative TSR, maximum vesting was increased to the 90th percentile and the threshold was lowered to the 35th percentile.	Closer aligning and re-balancing shareholders' and employees' interests.
Stock ownership guidelines	Increased the target for the Group CEO to five times annual base salary.	Stronger alignment with shareholders.

For further information on the Group compensation framework, please refer to pages 136–142 of this Compensation Report.

Say on pay and sustainability highlights

Say on pay votes at the AGM 2023

Maximum aggregate amount of compensation for the members of the Board of Directors for the term of office from the AGM 2023 to the AGM 2024.	**CHF 9.2 million** (AGM 2022: CHF 9.9 million) (AGM 2021: CHF 10.3 million)	The proposed maximum aggregate amount reflects the changes in the fees structure and composition of the Board of Directors and its committees.
Maximum aggregate amount of fixed compensation and variable long-term compensation for the members of the Group EC for the financial year 2024.	**CHF 33.0 million** (AGM 2022: CHF 36.5 million) (AGM 2021: CHF 36.5 million)	The decrease in the maximum aggregate amount reflects the changes in the composition of the Group EC with 12 expected members in 2024.
Aggregate amount of variable short-term compensation for the members of the Group EC for the financial year 2022.	**CHF 9.2 million** (AGM 2022: CHF 16.0 million) (AGM 2021: CHF 15.1 million)	The decrease in the aggregate amount is primarily driven by a lower Group Business Performance Factor for 2022 compared with 2021.

Spotlight: diversity, equity and inclusion is key to our compensation offering
Swiss Re is committed to ensuring equal pay for equal work regardless of gender, race, ethnicity, sexual orientation or other personal characteristics. Swiss Re has a non-discriminatory approach to determining compensation and benefits at all levels. Key pillars of the approach are:

- Sound governance around compensation decision-making and approvals to ensure appropriate checks and balances.
- Compensation ranges defined by job family or specialisation in the local market, which ensure that compensation for employees in the same country/location is set based on consistent benchmarks.
- Annual review of individual salaries and target incentives to maintain internal pay equity and pay for performance.
- Regular statistical analysis using best practice methodologies to identify and address potential risks of bias.

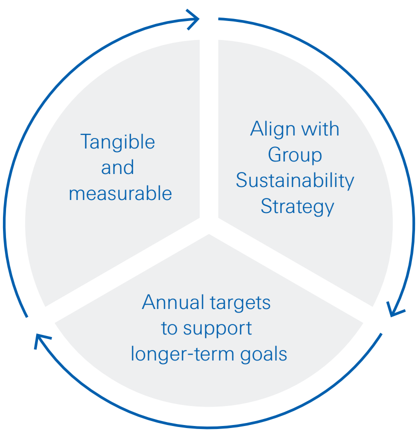
An inclusive and diverse workforce is critical to the success of the business. Pay equity reviews are conducted regularly with a focus on an "adjusted gender pay gap" comparing pay for people in similar roles, in the same country, at the same hierarchical level and with similar years of experience. During the most recent review conducted in April 2022, this measure did not reveal any systemic bias: globally, the adjusted pay gap between men and women stood at 1.7% on average (same as last year). In addition, line managers have self-service dashboards available to analyse compensation for their teams. For Swiss Re's larger locations (covering about 80% of all employees), regular statistical analysis is carried out to identify and address any potential risks of bias in compensation setting.

The revised Swiss Federal Act on Gender Equality requires companies such as Swiss Re to complete an equal pay analysis and have the results verified by an independent external auditor. The audit that was completed in spring 2022 concluded that Swiss Re is compliant across all legal entities and achieved the legal requirements set forth by the Swiss government. The result of this audit reaffirmed Swiss Re's commitment to equal pay.

More details on Swiss Re's initiatives fostering diversity are provided in the Sustainability Report available at www.swissre.com/sustainability.

Spotlight: strong link between compensation and performance against sustainability/environmental, social and governance (ESG) targets
Sustainability/ESG is one of the drivers for compensation outcomes as Swiss Re considers defined sustainability criteria for all Business Units/Group Functions within the annual bonus allocation. Unlike long-term variable compensation that applies only to selected participants, sustainability-related performance impacts compensation for all employees, including the Group EC, through the annual bonus. Additionally, some employees have sustainability/ESG targets set at an individual level where this aligns to their role and responsibilities.
Key considerations for the sustainability target-setting process are shown in the figure below.

Sustainability targets in compensation



Compensation philosophy and governance

Guiding principles of Swiss Re's compensation framework
Swiss Re's compensation framework is designed to reflect the nature of its business by:

- Reinforcing a culture of sustainable performance with a focus on risk-adjusted financial results.
- Ensuring alignment of compensation to long-term business results and individual contribution, and recognising both what was achieved and how it was achieved.
- Attracting, motivating and retaining the qualified talent the Group needs to succeed globally.
- Supporting Swiss Re's commitment to ensure equal pay for equal work regardless of gender, race, ethnicity, sexual orientation or other personal characteristics.
- Aligning the interests of employees with those of Swiss Re's shareholders and society at large.
- Fostering compliance, supporting appropriate and controlled risk-taking in line with Swiss Re's business and risk strategy, and avoiding conflicts of interest.

Swiss Re's total compensation is well balanced in terms of fixed versus variable compensation and short-term versus long-term incentives. This encourages sustainable long-term performance and supports shareholder alignment. Complemented by pension plans and benefits, the total reward package is competitive in local labour markets.

Compensation Policy
Building on the overarching compensation principles included in Swiss Re Ltd's Articles of Association, the compensation framework is captured within the Swiss Re Group Compensation Policy (Compensation Policy). The Compensation Policy is implemented globally to the extent possible. Variations may apply at the regional, entity and Business Unit (including Division iptiQ) level to accommodate specific requirements, such as compliance with local regulations and talent management. The Compensation Policy governs the compensation structure and processes and is regularly reviewed by Human Resources, Risk Management and the Compensation Committee against FINMA requirements and further relevant regulations as appropriate.

Approval authorities
Authority for decisions related to compensation at the Board of Directors and Group EC level is governed by Swiss Re Ltd's Articles of Association, which include rules on:

- The annual and binding approval by the AGM of the maximum aggregate amounts of compensation of members of the Board of Directors and of the Group EC (Article 22).
- The supplementary amount for changes in the Group EC if the maximum aggregate amount of compensation approved by the AGM is not sufficient to also cover compensation of a new Group EC member (Article 23).
- The compensation principles for both the members of the Board of Directors and of the Group EC covering short-term and long-term elements, performance-related pay, payment in shares, financial instruments or units, compensation in kind or other types of benefits (Article 24).
- The agreements with members of the Board of Directors and the Group EC, external mandates and credits and loans (Articles 25 to 27).

Swiss Re Ltd's Articles of Association are complemented by stringent governance on compensation matters set out in the Bylaws of Swiss Re Ltd and in the Bylaws of Swiss Reinsurance Company Ltd, including the Charter of the Compensation Committee. Authority levels are summarised in the table overleaf.

The Board of Directors has approved an authority matrix that defines the limits to which each level of management can authorise compensation payments. The Group CEO, the Compensation Committee or the Board of Directors, as applicable, approve all compensation that exceeds the pre-set limits. The Group CEO is not involved in decision-making concerning his own compensation. The Board of Directors also establishes and periodically reviews Swiss Re's compensation framework (including guidelines and performance criteria) and prepares the compensation-related proposals to the AGM.

Further details can be found in the Corporate Governance Report on pages 76–115 and on Swiss Re's webpage at www.swissre.com/articles and www.swissre.com/bylaws.

Approval processes for key compensation decisions

	Group CEO	CC	BoD Chairman	BoD	AGM
Board compensation					
Maximum aggregate amount of compensation for the next term of office		P	P	A, P[1]	A
Compensation for the BoD Chairman		P		A[2]	
Individual compensation for the members of the BoD (excl. BoD Chairman)		P	E	A[2]	
Group EC compensation					
Maximum aggregate amount of fixed compensation and variable long-term compensation	P	E	E	A, P[1]	A
Aggregate amount of variable short-term compensation	P	E	E	A, P[1]	A
Compensation for the Group CEO		E	P	A[2]	
Individual compensation for the members of the Group EC (excl. Group CEO)	P	E	E	A[2]	
Variable short-term and long-term compensation pools for the Group	P	E	E	A	
Compensation and benefits principles for the Group and for the BoD		P	E	A	

P = Proposal; **E** = Endorsement; **A** = Approval
CC = Compensation Committee; BoD = Board of Directors; AGM = Annual General Meeting
[1] The AGM approves the maximum aggregate amount.
[2] Within the maximum aggregate amount of compensation approved by the AGM and, for Group EC members, within the additional amount available for changes in the Group EC after the AGM as per the Articles of Association (if applicable).

Compensation Committee
The Compensation Committee is governed by a charter approved by the Board of Directors, which defines its purpose, composition and procedural rules, including its responsibilities and authorities for making proposals and decisions related to compensation of the members of the Board of Directors and the Group EC. It operates as the Group's compensation committee and oversees the compensation framework applied at all entities of the Swiss Re Group. In 2022, the Compensation Committee consisted of five independent members of the Board of Directors.

The Compensation Committee has an annual agenda to ensure that important reviews take place at the right times throughout the year, including the oversight of each stage of the compensation cycle. The Compensation Committee also commits time to executive sessions and conducts a periodic self-evaluation to preserve its high level of effectiveness.

During 2022, the Compensation Committee held six meetings and provided updates to the Board of Directors on topics discussed, decisions made and items for approval after each of these meetings. In addition, the Compensation Committee passed four decisions by circular resolution.

The Chairman of the Board of Directors, the Group CEO and the Group Chief Human Resources Officer & Head Corporate Services participate in the Compensation Committee meetings. Other members of senior management may attend as deemed appropriate and upon invitation by the Chair of the Compensation Committee. Management members do not attend when their own compensation is discussed.
The Global Head Reward serves as the Secretary to the Compensation Committee and attends its meetings (excluding the executive sessions).

Further details on the Compensation Committee can be found in the Corporate Governance Report (page 97 and page 99) and on Swiss Re's webpage at www.swissre.com/bylaws, including the Charter of the Compensation Committee.

Overview of the main topics addressed during the reporting year

	Jan	Feb	Apr	Jun	Sep	Dec
Board compensation						
Board of Directors fees				•		
Group EC compensation						
Performance assessment and compensation proposals		•				
Benchmarking						•
Past performance cycle						
Performance assessment process, performance factors and variable compensation pool	•	•				
Review of decisions of prior compensation cycle			•	•		
Upcoming performance cycle						
Leadership Share Plan pool for upcoming year	•	•				
Performance targets for upcoming year		•				•
Upcoming performance cycle discussion	•	•			•	•
Compensation framework and other topics						
Compensation framework and policies	•	•		•		•
AGM, investor and proxy advisor feedback			•	•		
ESG-related discussions	•	•			•	•
Governance, compliance and regulatory matters (including Compensation Report and self-evaluation)	•	•	•	•	•	•

External advisors
The Compensation Committee works with PricewaterhouseCoopers Ltd as an independent advisor to provide an external perspective. PricewaterhouseCoopers Ltd advised on topics including remuneration trends, (executive) compensation, market intelligence and best practices, while also participating in the Compensation Committee meetings. In addition, Mercer delivered compensation benchmarking data and Niederer Kraft Frey Ltd gave legal advice, mainly about specific aspects of executive compensation and labour law, regulatory compliance, plan rules and disclosure matters. The advisors may also have other mandates with Swiss Re. The Compensation Committee reviews the external advisors' role and mandate on a regular basis.

Additional safeguards in governing compensation: Control Functions and key risk takers
Swiss Re bears risks in the course of its business activities, including market, credit and liquidity, underwriting, operational (including legal and compliance) and reputational risk. Group Risk Management, Compliance and Group Internal Audit annually perform an independent assessment of risk- and control-related behaviours of the Group and each of the Business Units/Group Functions, and of Swiss Re's Key Risk Takers individually. These reports are delivered to key executives including the Group Chief Risk Officer and the Group Chief Human Resources Officer & Head Corporate Services. The risk- and control-related behaviour assessment of Group and Business Units/Group Functions provides additional input to determine the Group Annual Performance Incentive (API) pool and its allocation to each Business Unit/Group Function. The assessment results of each Key Risk Taker serve as additional input when considering individual performance and compensation outcomes.

To ensure meaningful assessments and the continued independence of Control Functions (defined as Group Risk Management, Compliance, Group Internal Audit and Appointed Actuaries), the aggregate API pool for each Control Function and individual compensation for the Head of the respective Control Function are approved at Board level.

Prohibition of personal hedging strategies
Any use of personal hedging strategies or remuneration and liability-related insurance that could undermine the risk alignment effects and economic exposure embedded in compensation arrangements is prohibited.

Board compensation

Compensation framework for the Board of Directors

The objective of compensating members of the Board of Directors is to attract and retain experienced individuals who are highly motivated to perform a critical role in the strategic oversight of Swiss Re and to contribute their individual business experience and expertise.

The fee structure for the members of the Board of Directors takes into account their long-term contribution to Swiss Re's success and achieves strong alignment with shareholder interests:

- Board members receive no variable or performance-based compensation.
- Fees are delivered 60% in cash and 40% in shares.
- Shares are subject to a four-year blocking period.

The fee level for each member of the Board of Directors is reviewed annually and benchmarked regularly by an external provider. Benchmarking is conducted against the same peer group used for the Group EC benchmarking (for further information on the peer group, please refer to page 130 of this Compensation Report) and against Swiss Market Index companies.

A minimum Swiss pension fund solution is provided to members of the Board of Directors who are not exempted from mandatory occupational benefit plans in Switzerland. This is offered by an established external provider and applies only to a limited number of individuals depending on their personal situation due to which local law imposes such a pension solution. Pension contributions are split equally between Swiss Re and the respective individual. Contributions made by Swiss Re are included in the maximum aggregate compensation of the Board of Directors proposed to the AGM for approval.

Changes to Board fees

No changes to Board of Directors fees have been made since 2018. Fee levels vary to reflect roles, responsibilities and time commitment, for instance due to committee memberships that differ in meeting frequency or duration. Fees for individuals may differ year on year, reflecting role changes (eg assuming the Chair position on a committee or joining a different committee in the reported financial year) or FX rate developments for fees not delivered in CHF (eg subsidiary board fees).

Subsidiary boards

The majority of the board members at subsidiary level are Swiss Re executives who do not receive any additional compensation for their services in these roles. When a member of the Board of Directors also serves on the board of a subsidiary, the maximum aggregate compensation of the Board of Directors proposed to the AGM for approval also includes such subsidiary board fees.

Board of Directors
Term of office: AGM 2022–AGM 2023

CHF millions

9.9
Maximum aggregate amount approved

9.6
Amount paid/granted

Say on pay

At the AGM 2022, shareholders approved a maximum aggregate amount of compensation of CHF 9.9 million for the members of the Board of Directors for the term of office from the AGM 2022 to the AGM 2023. The compensation paid to the 12 members of the Board of Directors for their term of office from the AGM 2022 to the AGM 2023 was CHF 9.6 million and therefore within the approved amount.

Further details on the compensation for members of the Board of Directors are provided in the tables on the following page. Currency conversions are calculated using December 2022 year-to-date FX rates for 2022 and 2023 figures, and December 2021 year-to-date FX rates for 2021 figures, where relevant.

(1) Individual Board compensation for the term of office between AGM 2022 and AGM 2023 (in CHF thousands, approved by AGM)

Audited

Members of the Board of Directors	Base fees	Governance & Nomination Committee	Audit Committee	Compensation Committee	Finance and Risk Committee	Investment Committee	Subsidiary board fees and other[1]	Total[2]
Sergio P. Ermotti, Chairman, Chair Governance & Nomination Committee								3 800
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	225	30	425	50			125	855
Karen Gavan, member	225		75	50			134	484
Joachim Oechslin, member, Chair Finance and Risk Committee	225				300	50		575
Deanna Ong, member	225		75	50			124	474
Jay Ralph, member	225				50	50		325
Joerg Reinhardt, member	225	30		50				305
Philip K. Ryan, member	225		75		50		287	637
Sir Paul Tucker, member	225				50	50		325
Jacques de Vaucleroy, member, Chair Compensation Committee	225	30		200		50	201	706
Susan L. Wagner, member, Chair Investment Committee	225	30				300		555
Larry Zimpleman, member	225		75		50		134	484
Total compensation for the term of office from AGM 2022 to AGM 2023[3]								**9 552**

[1] Including Vice Chairman or subsidiary board fees (converted at 2022 average exchange rates where applicable).
[2] Excluding company contributions to social security systems paid by Swiss Re in line with applicable laws.
[3] Including an amount of approximately CHF 9 000 for minimal benefits and CHF 18 000 for employer pension contributions as mandatory under Swiss law.

(2) Individual Board compensation for the reported financial years 2021 and 2022 (in CHF thousands)

Audited

Members of the Board of Directors	Total 2021	Fees and allowances in cash	Fees in blocked shares	Total 2022
Sergio P. Ermotti, Chairman, Chair Governance & Nomination Committee	2 618	2 290	1 520	3 810
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	826	508	338	846
Raymond K.F. Ch'ien, former member[1,2]	431	96	43	139
Karen Gavan, member[3]	478	344	140	484
Joachim Oechslin, member, Chair Finance and Risk Committee	326	296	197	493
Deanna Ong, member[2]	420	326	133	459
Jay Ralph, member	335	205	130	335
Joerg Reinhardt, member	306	184	122	306
Philip K. Ryan, member[3]	875	547	173	720
Sir Paul Tucker, member	325	195	130	325
Jacques de Vaucleroy, member, Chair Compensation Committee[4]	722	504	202	706
Susan L. Wagner, member, Chair Investment Committee	605	343	229	572
Larry Zimpleman, member[3]	457	344	140	484
Total compensation for the reported financial years[5]	8 724	**6 183**	**3 498**	**9 681**

[1] Did not stand for re-election at the AGM of 13 April 2022.
[2] Includes fees received for duties on the board of Singapore Group companies.
[3] Includes fees received for duties on the board of US Group companies.
[4] Includes fees for duties on the board of Luxembourg Group companies.
[5] Total figures might contain rounding differences. Compensation for the members of the Board of Directors includes fixed fees (cash and shares), minimal allowances and benefits. Also included are employer pension contributions as mandatory under Swiss law (CHF 18 019 in 2022 compared with CHF 18 128 in 2021). No sign-on or severance payments have been made. Amounts are gross and include social security contributions of the Board member. Additionally and not included are company contributions to social security systems paid by Swiss Re in line with applicable laws (CHF 433 574 in 2022 compared with CHF 459 543 in 2021). For Board members domiciled outside of Switzerland, company social security contributions are refunded if bilateral social security agreements between Switzerland and the country of domicile apply and provide for such a refund.

No loans or credits were granted to current or former members of the Board of Directors or their related parties in 2022 and no loans or credits were outstanding as of 31 December 2022. During 2022, no payments related to any individual's former activity as a member of the Board of Directors were made, nor payments to former members that are not customary in the market. Any payments to former members of the Board of Directors during 2021 were disclosed in the 2021 Compensation Report. Disclosure on compensation in 2022 covers members of the Board of Directors and includes related parties to the extent applicable (spouses, partners, children and other dependents or closely linked persons). In 2022, no compensation was paid to any related party.

Shares held by members of the Board of Directors

Members of the Board of Directors	2021	2022
Sergio P. Ermotti, Chairman, Chair Governance & Nomination Committee	13 006	31 203
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	39 655	43 703
Raymond K.F. Ch´ien, former member[1]	16 221	n/a
Karen Gavan, member[2]	6 344	8 020
Joachim Oechslin, member, Chair Finance and Risk Committee	2 895	5 264
Deanna Ong, member	2 672	4 271
Jay Ralph, member	6 582	8 139
Joerg Reinhardt, member	28 831	30 292
Philip K. Ryan, member	21 883	23 944
Sir Paul Tucker, member	8 757	10 314
Jacques de Vaucleroy, member, Chair Compensation Committee	10 046	12 465
Susan L. Wagner, member, Chair Investment Committee	20 162	22 897
Larry Zimpleman, member	5 502	7 178
Total	182 556	**207 690**

[1] Did not stand for re-election at the AGM of 13 April 2022.
[2] Shareholdings include 2 500 American Depository Receipts, equivalent to 625 shares.

Group EC compensation

Compensation framework for the Group EC
The objective of compensating members of the Group EC is to attract, motivate and retain individuals who are highly capable of driving Swiss Re's success and shareholder value creation. Their compensation follows the same philosophy as the Swiss Re compensation framework for all employees, enabling success by:

Ensuring pay for performance by aligning compensation to risk-adjusted long-term business results.

Having well-balanced fixed, short-term variable and long-term variable compensation elements.

Stock ownership guidelines exposing part of Group EC members' personal wealth to similar risks as borne by shareholders.

The key compensation elements are outlined in the table below.

	Annual base salary and benefits	Annual Performance Incentive (API)	Deferred Share Plan (DSP)	Leadership Share Plan (LSP)
Purpose	Attract and retain	Incentivise annual business and individual performance	Encourage sustainable performance	Align with shareholders, incentivise long-term value creation
Mechanism	Cash salary and market-practice benefits	Cash payment	Deferral of a portion of API settled in share units	Annual award[1] of Performance Share Units (PSUs), settled in shares after vesting period
Performance measures	Role, responsibilities, individual experience and skill set	Business and individual targets	No performance conditions	ROE, ENW and relative TSR
Threshold and maximum opportunity	Fixed	0–200% of target, capped at three times annual base salary	100% of share units granted	0–150% of PSUs
Performance period	1 year	1 year	3 years	5 years (3-year vesting period and 2-year holding period)

[1] The individual grant level for each Group EC member is based on the scope and market value of the role. The amount is capped at two times annual base salary for the Group CEO and 1.5 times annual base salary for other Group EC members.

Group EC members' performance drives the allocation of the above-mentioned variable compensation elements as set out on page 131 for the Group CEO and page 134 for the Group EC. The ratio of fixed to variable compensation is provided on page 121. Further details on the globally implemented compensation framework are provided in the section Group compensation framework, 2022 outcomes and 2023 changes.

Stock ownership guidelines
To ensure long-term alignment with shareholder interests, key executives are required to hold Swiss Re stock. The stock ownership guidelines define the following target ownership levels by role:

- Group CEO: five times annual base salary.
- Other Group EC members: two times annual base salary.
- Other key senior executives: one time annual base salary.

The target has to be achieved within five years. All vested shares that are owned directly or indirectly by the relevant individual and related parties as well as share units not subject to performance conditions owned directly by the relevant individual count towards the requirements under the stock ownership guidelines. Compliance is reviewed on an annual basis and the findings are reported to the Compensation Committee, which decides on appropriate actions as needed. During the 2022 assessment, all Group EC members fulfilled the applicable stock ownership guidelines.

As Swiss Re believes that a meaningful stock ownership position is essential for alignment with the interests of shareholders, restrictions on cash payouts may apply in case of non-compliance.

Benchmarking
An annual review of the compensation of the Group EC relative to a group of reference companies (ie peer group) is conducted to ensure that market competitiveness is maintained. This peer group is regularly reviewed by the Compensation Committee to ensure its relevance. The 2022 peer group consists of the following globally active primary insurance and reinsurance firms: Allianz SE, American International Group Inc, Aviva PLC, AXA SA, Chubb Limited, Everest Re Group, Hannover Rueck SE, MetLife Inc, Muenchener Rueckversicherungs-Gesellschaft AG, Reinsurance Group of America Inc, Renaissance Re Holding Ltd, SCOR SE and Zurich Insurance Group Ltd.

Employment conditions and clauses on changes of control
The Group EC members, including the Group CEO, have open-ended employment agreements with notice periods of 12 months for termination by either the company or the individual. Their employment agreements comply with the Ordinance against Excessive Remuneration in Listed Companies limited by Shares (Ordinance). They do not contain severance clauses, any special provisions on the cancellation of contractual arrangements, agreements concerning special notice periods, waivers of lock-up periods for options, shorter vesting periods, additional contributions to pension funds or any other provisions protecting against changes of control ("golden parachutes").

Group EC members are covered by the Group's standard defined contribution pension plans. Information on the mandates and employment contracts of the members of the Board of Directors and further executive management is provided in the Corporate Governance Report on page 111.

In the event of a change of control, the rights of members of the Group EC are identical to those of all other employees as governed by VAI, DSP, LPP and LSP plan rules. Specifically, the Board of Directors may decide at its discretion on the continuation, acceleration, amendment, or removal of any vesting, blocking or exercise conditions for the payment or grant of deferred compensation. It may also decide to replace any DSP, LPP/LSP award with shares of the entity assuming control. In addition, it may apply any other measure which it considers equitable and reasonable, provided this does not constitute impermissible compensation pursuant to the Ordinance. Should the Board of Directors decide to accelerate vesting, performance factors will generally be based on the latest performance estimates available. Information on the quantitative impact of vested shares is provided in the Corporate Governance Report on page 87.

Compensation for the highest-paid member of the Group EC
The table below shows the compensation paid to Christian Mumenthaler, Group CEO. Further details on the Group CEO's performance assessment and compensation outcomes are provided in the Group CEO scorecard on the next page.

Audited

CHF thousands	2021	**2022**
Base salary	1 500	1 500
Allowances[1]	34	34
Funding of pension benefits[2]	223	223
Total fixed compensation	1 757	**1 757**
Cash Annual Performance Incentive[3]	1 183	713
Value Alignment Incentive[3]	1 183	
Deferred Share Plan[3]		713
Leadership Share Plan[4]	3 000	3 000
Total variable compensation	5 366	**4 426**
Total compensation[5]	7 123	**6 183**

[1] Benefits or allowances paid in cash. Includes healthcare and accident insurance benefits, lump sum expenses, transportation, and child and similar allowances.
[2] Swiss Re's Pension Fund amended its regulations with effect from 1 January 2019, including some adjustments to the benefits provided to insureds in Switzerland. In consideration of those amendments (which apply to the Group CEO and Group EC members insured in Switzerland as well as all other employees insured in Switzerland), the figures disclosed for 2021 and 2022 include higher employer pension contributions and contributions to mitigate the effects of lower conversion rates.
[3] For 2022, subject to shareholder approval at the AGM 2023. For 2021, as part of the aggregate amount of short-term variable compensation approved by the shareholders at the AGM 2022. As of 2022, the Value Alignment Incentive was replaced by the Deferred Share Plan.
[4] Disclosure reflects all awards for a reporting year, ie the 2021 value reflects the fair value of LSP award granted in April 2021 and the 2022 value reflects the fair value of LSP award granted in April 2022. LSP award is split equally into three underlying PSU components.
[5] Amounts are gross before deduction of employee social security contributions. Additional and not included are company contributions to social security systems paid by Swiss Re in line with applicable laws, which amounted to CHF 326 719 in 2021 and to CHF 265 886 in 2022.

Group CEO performance assessment and compensation

Performance assessment process
The Board of Directors sets the Group CEO's API against financial and qualitative KPIs, which are set at the beginning of the financial year. KPIs are designed to support the long-term business strategy and drive sustainable performance across the Swiss Re Group. The Group CEO's API is capped at two times Target API and additionally at three times annual base salary.

Financial performance (weighted 70%)

2022 KPIs	Target/ guidance	Threshold	Maximum	Achievement	Weight	Achievement in %
ROE	10%	5%	15%	**2.6%**	35%	0%
ENW per share growth	10%	0%	20%	**–5.9%**	20%	0%
Net income L&H Reinsurance	300m	200m	800m	**416m**	15%	72%
Normalised combined ratio P&C Reinsurance	<94%	96%	92%	**96.9%**	15%	0%
Reported combined ratio Corporate Solutions	<95%	97%	92%	**93.1%**	15%	156%
Financial performance achievement	**34%** (minimum 0%, maximum 200%)					

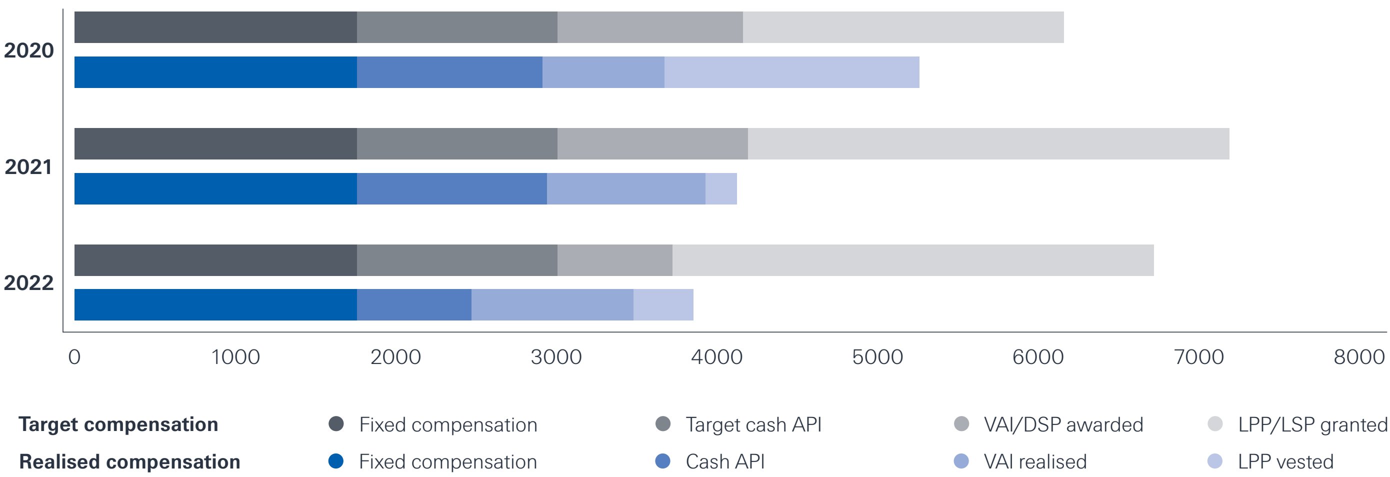
Qualitative performance (weighted 30%)

2022 KPIs	Assessment and key highlights
Strategic priorities (15% weight) **80%**	In 2022, the Group CEO oversaw the launch of the Reinsurance Solutions division, a unit focused on leveraging data and technology to drive innovation for our clients globally, and the expansion of Corporate Solutions' differentiated offering to corporate clients, including Innovative Risk Solutions and International Programme capabilities. In addition, he advanced Swiss Re's digital transformation by enhancing the Reinsurance Analytics Data Model, which supports sound underwriting, and he continued to reinforce the standardised business efforts. For iptiQ, while good progress was made in terms of growth, its financial results are still below expectations. This and the delivery of other strategic programmes will need increased attention in 2023. First steps in the project to simplify the Group's organisation and management structure were initiated. The Group CEO's unabated client centricity was reflected in the very strong scores received in independent client surveys: Reinsurance secured the top position in target markets across P&C and L&H in the NMG survey, and Corporate Solutions had a Net Promoter Score of 46, which is significantly above prior-year levels.
ESG (15% weight) **140%**	The Group CEO showed very strong personal engagement in ESG topics and enhanced Swiss Re's profile as a prominent participant in public discussions, particularly in key focus areas such as decarbonisation. The Group delivered against the KPIs as defined in the Group Sustainability Report and continues to be recognised externally as an ESG leader, as reflected in its inclusion in the Dow Jones Sustainability Index (DJSI) and the AAA rating from MSCI. This recognition also reflects the Group's focus on achieving net-zero emissions on the asset and liability side by 2050 and meeting governance expectations, for which important progress was made in 2022. In Underwriting, the policies for new oil & gas projects were further strengthened and client engagements on sustainability have expanded. Strong progress was made in developing the Target-Setting Protocol of the Net-Zero Insurance Alliance (NZIA) co-founded by Swiss Re. On the Asset Management side, the Group exceeded their carbon reduction targets for corporate bonds, listed equity and listed assets. The Group also exceeded the reduction target for absolute greenhouse gas (GHG) emissions from business air travel compared with the 2018 base year. The Group CEO ensured adherence to the gender promotion targets for senior management, including Directors and Managing Directors across the company. In line with the Group's purpose to "make the world more resilient", he supported Swiss Re Foundation's efforts to support emergency aid work in Ukraine as well as countries affected by the war-induced food crisis.
Qualitative performance achievement	**110%** (minimum 0%, maximum 200%)

Individual scorecard factor	**0.57**	Based on 70% weighting for financial performance achievements and 30% weighting for qualitative performance achievements.
Resulting API for the Group CEO	**CHF 1425000**	Calculated by multiplying the Target API of CHF 2 500 000 with the individual scorecard factor, rounded up to the next five thousand.

Pay for performance: Group CEO realised compensation
The chart below shows the realised compensation for Christian Mumenthaler, Group CEO, against his target compensation.

CHF thousands



					Target					Realised
CHF thousands	Fixed compensation	Target cash API[1]	VAI/DSP awarded[2]	LPP/LSP granted	**Total**	Fixed compensation	Cash API[3]	VAI realised	LPP vested[4]	**Total**
2020	1 756	1 250	1 155	2 000	**6 161**	1 756	1 155	761	1 589	**5 261**
2021	1 757	1 250	1 183	3 000	**7 190**	1 757	1 183	989	195	**4 124**
2022	1 757	1 250	713	3 000	**6 720**	1 757	713	1 009	374	**3 853**

[1] 50% of the Group CEO's total Target API for the respective year (ie the portion that is not subject to deferral).
[2] Actual Value Alignment Incentive (VAI)/Deferred Share Plan (DSP) awarded for the respective year (50% of realised cash API). For 2022, subject to shareholder approval at the AGM 2023.
[3] For 2022, subject to shareholder approval at the AGM 2023.
[4] For 2022, the realised value is estimated based on the closing share price at year-end 2022 (CHF 86.48) since vesting will occur after publication of this report. Prior-year figures have been restated to reflect the actual realised value based on the share price at vesting.

Say on pay

At the AGM 2021, shareholders approved a prospective maximum aggregate amount of CHF 36.5 million for fixed compensation and variable long-term compensation for the financial year 2022 for the members of the Group EC. The amount of CHF 33.4 million paid and effectively granted to the Group EC members during the financial year 2022 consists of:

- CHF 16.6 million fixed compensation;
- CHF 14.0 million variable-long term compensation; and
- CHF 2.8 million for compensation due to members leaving.

It includes compensation and associated costs in relation to the period in a Group EC position for one individual who joined the Group EC during the year. It also includes compensation and associated costs in relation to the role of Group Chief Digital & Technology Officer per 1 January 2022. As of the same date, the Group EC no longer comprised a Group Chief Operating Officer role. These changes were not known at the time of the AGM 2021. Details are provided in the table below.

The 2022 figures cover payments to 14 individuals who held a Group EC position at any point in 2022 (including the Group CEO), of whom 12 were active on the Group EC for the full year. The 2021 figures cover payments to 14 individuals who held a Group EC position at any point in 2021 (including the Group CEO), of whom 11 were active on the Group EC for the full year.

The figures include legally or contractually required payments to individuals who stepped down from the Group EC during the respective year; no severance payments were made. For 2022, the amount relates primarily to company commitments for tax-related services and to allowances in connection with the international assignment of the individual stepping down from the Group EC.

Group EC compensation

Financial year 2022

CHF millions

36.5

Maximum aggregate amount approved for fixed compensation and variable long-term compensation

33.4

Amount paid/granted

Compensation for members of the Group EC including the Group CEO

Audited

CHF thousands[1]	14 members 2021	14 members **2022**
Base salaries	12 493	12 087
Allowances[2]	2 794	1 908
Funding of pension benefits[3]	2 712	2 632
Total fixed compensation[4]	17 999	**16 627**
Cash Annual Performance Incentive[4, 5]	8 697	4 988
Value Alignment Incentive[4, 5]	7 331	
Deferred Share Plan[4,5]		4 211
Leadership Share Plan[6]	14 874	14 025
Total variable compensation	30 902	**23 224**
Total fixed and variable compensation	48 901	**39 851**
Compensation due to members leaving[7]	407	2 771
Total compensation[8]	49 308	**42 622**

[1] Foreign currency conversions calculated using December 2022 year-to-date FX rates for 2022 figures and December 2021 year-to-date FX rates for 2021 figures (where relevant).

[2] Benefits or allowances, eg housing, schooling, lump sum expenses, relocation expenses and taxes, child and similar allowances. Also included is an amount of CHF 31 051 for 255 matching shares received by Group EC Members participating in Swiss Re's Global Share Participation Plan in 2022 (in 2021 CHF 19 233 for 226 matching shares). For 2021, a cash replacement award in the amount of CHF 178 000 is included that was paid to one Group EC member in 2021 as compensation for a proven financial disadvantage due to leaving the former employer.

[3] Swiss Re's Pension Fund amended its regulations with effect from 1 January 2019, including some adjustments to the benefits provided to insureds in Switzerland. In consideration of those amendments (which apply both to Group EC members insured in Switzerland and all other employees insured in Switzerland), the figures disclosed for 2021 and 2022 include higher employer pension contributions and contributions to mitigate the effects of lower conversion rates.

[4] Covers payments reflecting the time in the role as Group EC member.

[5] For 2022, subject to shareholder approval at the AGM 2023. For 2021, based on shareholders' approval at the AGM 2022 of the aggregate amount of short-term variable compensation. Disclosure includes pro-rata payments in relation to the active period on the Group EC for individuals who joined or left the Group EC. As of 2022, the Value Alignment Incentive was replaced by the Deferred Share Plan.

[6] For 2021, also included is an equity replacement award in the value of CHF 1 773 910 that was granted to one Group EC member in 2021 as compensation for a proven financial disadvantage due to leaving the former employer. The replacement awards may vest in three annual instalments. Disclosure reflects all awards for a reporting year, ie the 2021 value reflects the fair value of LSP awards granted in April 2021 and the 2022 value reflects the fair value of LSP awards granted in April 2022. Any awards granted during the respective year and then forfeited at a later point in that same year are not included. LSP awards are split equally into three underlying PSU components.

[7] For individuals leaving the Group EC during the reporting period, this only covers legally or contractually required payments for the period when the individual was no longer in the Group EC position (eg base salary when on garden leave). For 2022, the amount relates primarily to company commitments for tax-related services and to allowances in connection with the international assignment of the individual stepping down from the Group EC. No severance payments were made.

[8] Amounts are gross before deduction of employee social security contributions. Additional and not included are company contributions to social security systems paid by Swiss Re in line with applicable laws, which amounted to CHF 2 559 951 in 2021 and CHF 2 063 738 in 2022.

Group EC performance assessment and compensation
Performance of each Group EC member is assessed by means of an individual scorecard with a set of quantitative and qualitative objectives. This approach aligns the performance assessment of the Group EC to the practice used for the Group CEO. The objectives are agreed at the beginning of the performance year and are derived from the Group's strategy and the Group CEO's objectives.

The members of the Group EC are assessed by the Group CEO based on i) their individual performance; ii) the performance of the Business Unit/Group Function in their responsibility; and iii) Swiss Re's performance. These three assessment elements directly impact the Group EC members' compensation.

Subsequently, the Compensation Committee reviews the effectiveness of the Group's performance management process and challenges compensation proposals for the Group EC members.

The assessment with the proposed API amount for each Group EC member is approved by the Board of Directors.

Target API × **Individual Scorecard Factor** = **API amount**

The Target API amount is set separately for each Group EC member, considering the scope of the role being performed and market benchmarks.

Individual Scorecard Factor (ISF) considers performance against financial targets and individual goals. It consists of:

- Weighted Business Performance Factor (Weighted BPF) is set for each Group EC member individually based on the role and responsibilities. It is the result of the financial performance evaluation against Group financial targets (weighted 20% to 50%) and Business Unit/Group Function targets in the Group EC member's responsibility (weighted 50% to 80%). Group financial KPIs and targets are derived from those included in the Group CEO scorecard.
- Individual Payout Factor (IPF) is the result of the assessment process with 40% being attributed to the leadership behaviours objectives embedded in Swiss Re's performance culture and 60% attributed to individual goals. The Group CEO retains discretion to adjust the IPF.

ISF is calculated as Weighted BPF × IPF.

The resulting API amount is calculated as Target API × ISF. The API amount is capped at two times Target API with an additional cap of three times base salary for Group EC members.

Group EC performance outcomes
The Group EC focused on steering the Group and its employees through a time of escalating political tensions and war as well as the economic reverberations thereof, while continuing to advance key business and strategic ambitions. For example, a central focus was to ensure sound underwriting decisions amid an inflationary environment, rising interest rates and the impact of climate change. Another priority was to set strong foundations for Swiss Re to adopt IFRS as its reporting framework as of 1 January 2024. The Group EC also kept a strong focus on client centricity, ensuring continued support through trying times. Independent client surveys confirmed that Swiss Re enjoys a leading position in most markets globally. In terms of financial performance, 2022 was a challenging year, marked by the war in Ukraine, surging economic inflation, the tail end of the COVID-19 pandemic and elevated natural catastrophe losses. As such, the Group did not meet the Group financial targets (ROE and ENW per share growth).

2022 aggregate amount of Group EC variable short-term compensation
For 2022, the Group EC target API pool (pro-rata amount in relation to the active period on the Group EC, including the Group CEO) amounted to CHF 15.2 million compared with CHF 17.1 million in 2021. The decrease is primarily due to one Group EC member leaving who forfeited the API in line with the applicable termination and clawback provisions. For the Group CEO, the Target API was CHF 2.5 million (no change compared with 2021).

The proposed total API (including DSP) amount for 2022 for the Group EC (including the Group CEO) is CHF 9.2 million and includes pro-rata payments in relation to the active period on the Group EC for individuals who joined or left the Group EC in 2022. The Group EC was held accountable for the Group's lower financial results; the total API (including DSP) amount was reduced by CHF 6.8 million compared with the approved total 2021 API (including VAI) amount of CHF 16.0 million. This represents an overall decrease of 42.5% compared with 2021. Overall, Group EC members will receive 39.5% less than their Target API for the active Group EC time (subject to shareholder approval at the 2023 AGM). For comparison, the Group API pool decreased by 28.1% against prior year.

After carefully considering the performance of the Group EC in 2022, the Compensation Committee and the Board of Directors concluded that the proposed amount is proportionate given the overall achievements of the Swiss Re Group and the business environment as well as in alignment with shareholder interests.

Additional information on Group EC compensation

Audited

Other payments	No payments (or waivers of claims) other than those set out in this section (Group EC compensation) were made to current members of the Group EC or persons closely related.
Pension schemes	Each member of the Group EC, including the Group CEO, participates in a defined contribution pension scheme. The funding of pension benefits shown in the disclosures reflects the actual employer contributions.
Related parties transactions	Disclosure on compensation in 2022 covers members of the Group EC and includes related parties to the extent applicable (spouses, partners, children and other dependents or closely linked persons). In 2022, no compensation was paid to any related party.
Loans and credits	As per Article 27 of the Articles of Association, credits and loans to members of the Group EC may be granted at employee conditions applicable for the Swiss Re Group, with a cap on the total amount of such credits and loans outstanding per member (currently CHF 3.0 million per member of the Group EC). During 2019, any outstanding loans and mortgages to current and former Group EC members were transferred to an external party. No credits, loans or mortgages were granted to current or former members of the Group EC or their related parties in 2022.
Payments to former members of governing bodies	During 2022, payments in the total amount of CHF 1.12 million were made to nine former members of the Group EC. This amount is made up of legally or contractually required payments for the period when the individual was no longer in the Group EC position, company contributions payable by Swiss Re to governmental social security systems in line with applicable laws, matching shares awarded in the context of outstanding Global Share Participation Plan cycles, risk benefits, pension contributions and company commitments for tax-related services in line with contractual obligations.
Value of awards granted	For US GAAP and statutory reporting purposes, VAI and LSP awards are accrued over the period during which they are earned. For the purpose of the disclosure required in this Compensation Report, the value of awards granted is included as compensation in the year of performance for the years 2021 and 2022, respectively.

Shares held by members of the Group EC

The following table reflects Swiss Re share ownership by members of the Group EC as of 31 December:

Members of the Group EC	2021	**2022**
Christian Mumenthaler, Group Chief Executive Officer	93 414	95 631
Urs Baertschi, CEO Reinsurance EMEA / Regional President EMEA	3 989	5 391
Andreas Berger, CEO Corporate Solutions	213	1 072
John R. Dacey, Group Chief Financial Officer	39 234	40 386
Cathy Desquesses, Group CHRO & Head Corporate Services	0	3 269
Guido Fürer, Group Chief Investment Officer	64 888	66 274
Hermann Geiger, Group Chief Legal Officer	53 175	54 127
Russell Higginbotham, former CEO Reinsurance Asia/Regional President Asia[1]	15 966	n/a
Jonathan Isherwood, CEO Reinsurance Americas/Regional President Americas	55 880	56 935
Pravina Ladva, Group Chief Digital & Technology Officer	n/a	1 210
Thierry Léger, Group Chief Underwriting Officer	64 891	66 000
Paul Murray, CEO Reinsurance Asia Pacific/Regional President Asia Pacific[2]	n/a	10 447
Moses Ojeisekhoba, CEO Reinsurance	47 001	48 110
Patrick Raaflaub, Group Chief Risk Officer	32 611	33 720
Total	471 262	**482 572**

[1] The number of shares held on 31 March 2022 when Russell Higginbotham stepped down from the Group EC was 16 546.
[2] Includes 1 373 shares held by a related party.

LPP/LSP units held by members of the Group EC

The following table reflects total unvested LPP and LSP units (RSUs and PSUs) held by members of the Group EC as of 31 December:

Audited

Members of the Group EC	2021	**2022**
Christian Mumenthaler, Group Chief Executive Officer	96 418	120 723
Urs Baertschi, CEO Reinsurance EMEA / Regional President EMEA	22 537	33 201
Andreas Berger, CEO Corporate Solutions	38 586	45 407
John R. Dacey, Group Chief Financial Officer	41 347	45 267
Cathy Desquesses, Group CHRO & Head Corporate Services	4 806	14 686
Guido Fürer, Group Chief Investment Officer	51 683	57 405
Hermann Geiger, Group Chief Legal Officer	28 943	31 687
Russell Higginbotham, former CEO Reinsurance Asia/Regional President Asia	34 646	n/a
Jonathan Isherwood, CEO Reinsurance Americas/Regional President Americas	30 694	35 085
Pravina Ladva, Group Chief Digital & Technology Officer	n/a	14 459
Thierry Léger, Group Chief Underwriting Officer	45 222	52 435
Paul Murray, CEO Reinsurance Asia Pacific/Regional President Asia Pacific	n/a	26 889
Moses Ojeisekhoba, CEO Reinsurance	47 106	54 319
Patrick Raaflaub, Group Chief Risk Officer	41 347	45 267
Total	483 335	**576 830**

Group compensation framework, 2022 outcomes and 2023 changes

Base salary and benefits
Base salary is the fixed compensation paid to employees for carrying out their role and is established based on the following factors:
- Scope and responsibilities of the role and qualifications required.
- Market value of the role in the location in which Swiss Re competes for talent.
- Skills and expertise of the individual.

Alongside the base salary, Swiss Re aims to provide employee benefits that are designed and implemented under a global framework.

The key objectives of Swiss Re's benefits packages are to:
- Be competitive in the markets where Swiss Re competes for talent.
- Provide a degree of financial resilience for employees as it relates to pension, health matters, disability and death.
- Connect with Swiss Re values and enhance engagement.

Forfeiture provisions apply in line with local market practice in certain benefit plans (eg common forfeiture provisions in retirement savings plans).

Annual bonus: API
Purpose
The Annual Performance Incentive (API) is a discretionary, variable component of compensation. Combined with the base salary, it provides competitive total cash compensation for achievements against both business and individual performance targets and for the demonstration of desired behaviours.

As of performance year 2022, Swiss Re's API pool funding process places a stronger focus on financial performance outcomes, which strengthens the link between pay and performance. The financial performance assessment considers five financial Key Performance Indicators (KPIs) with ENW growth and Capitalisation level as Group targets complemented by three segment targets. The KPIs are reviewed on an annual basis. The resulting Group Business Performance Factor (BPF) is calculated through a financial model with the achievement being capped to avoid a disproportionate pool.

The Compensation Committee can apply discretion (eg to protect the franchise or ensure affordability) to make an upward or downward adjustment to the Group API pool recommended for approval to the Board of Directors. If discretion is applied, this is disclosed.

Based on the respective financial and qualitative performance, the Group CEO then splits the Group API pool into pools for each Business Unit/Group Function, an aggregate pool for the Group EC and one for other key executives. Such assessment considers dimensions aligned with Swiss Re's priorities, including unit-specific financial metrics, risk and control behaviours and sustainability/ESG targets.

API determination process

Group API pool funding

Financial KPI-based assessment

KPI
Contribution to ENW
Group capitalisation level
L&H Re net income
P&C Re normalised combined ratio
CorSo reported combined ratio

±

Discretion (optional)
Number of factors, incl. sustainability, pay for performance linkage, affordability and proportionality of value sharing among employees and shareholders, risk and control behaviours, etc. are considered in this step.

The Group API pool is determined through a financial assessment.

Potential downward or upward adjustment can be applied by the Compensation Committee if warranted and such application is disclosed to shareholders.

Business Units/Group Functions allocation

Financial dimensions
Pre-set metrics and targets may comprise unit-specific targets, such as combined ratio.

Qualitative dimensions
Defined KPIs and measurable targets, across dimensions such as: Strategic initiatives; Sustainability; People metrics; Operational excellence and franchise value (including risk and control behaviours).

Upon approval by the Board of Directors, the Group API pool is allocated to the Business Units/Group Functions.

Individual allocation

Individual performance
Individual performance is assessed against objectives achieved and demonstration of desired behaviours that are aligned to Swiss Re's purpose and business strategy.

The actual API payout is linked both to Swiss Re's business results and to individual performance.

The API for each employee is determined based on their Target API, individual performance and performance of the Business Unit/Group Function the employee belongs to. Individual performance is assessed against individual goals and Swiss Re's behaviour expectations and corporate values, all aligned to Swiss Re's business strategy. Swiss Re's "leadership from every seat" philosophy, as part of which desired behaviours are clearly articulated, is embedded in the continuous performance management and feedback discussions. This allows for forward-looking conversations that foster real-time improvement and adaptation to business needs. In doing so, Swiss Re ensures robust performance differentiation and transparent pay for performance. When the total API level for an employee equals or exceeds a pre-defined amount, a portion is deferred into the Deferred Share Plan (DSP). The non-deferred portion is settled in immediate cash (cash API).

Limitations to avoid excessive payouts

API awards to individuals are capped at two times Target API. For Group EC members an additional cap of three times annual base salary is applied. Both the Group API pool as well as an individual API can be reduced to zero. Forfeiture of unsettled awards and clawback provisions for settled awards apply in a range of events, enabling Swiss Re to seek repayment where appropriate. Examples of such events are acts which can be considered as malfeasance, fraud or misconduct.

2022 API outcomes

2022 was a challenging year, marked by the war in Ukraine, surging economic inflation, the tail end of the COVID-19 pandemic and elevated natural catastrophe losses. The main performance outcomes include:

- ENW per share growth was at –5.9%, significantly below the target of 10%, reflecting natural catastrophe and large man-made losses for non-life business, adverse assumption changes in L&H Reinsurance as well as the impact of economic inflation and pandemic risk model update. In addition, investment activities resulted in a loss due to credit spread widening and equity mark-to-market losses, partially offset by outperformance from alternative investments.
- Swiss Re's capital position remained very strong, with the Group Swiss Solvency Test (SST) ratio of 294% above the 200–250% target range performance, reflecting increased interest rates and the de-risking of the asset portfolio.
- L&H Reinsurance reported a net income of USD 416 million for 2022, above the target net income of approximately USD 300 million. L&H Reinsurance returned to profitability despite COVID-19-related claims of USD 588 million.
- P&C Reinsurance's normalised combined ratio of 96.9% did not deliver against its target of less than 94%, mainly due to the impacts of higher-than-expected economic inflation, which drove an increase in the average claims size.
- Corporate Solutions' combined ratio was 93.1%, outperforming the external target of less than 95%, reflecting the solid underlying business performance as a result of strong portfolio quality and new business growth in selected focus portfolios.

Next to financial achievements driving the funding, the proposed Group BPF was also evaluated in the broader context, including affordability, proportionality of value sharing, risk and control behaviours, sustainability/ESG and other qualitative dimensions, as relevant. The Board of Directors applied no upward or downward discretion and approved the Group BPF of 0.68.

Deferred compensation: DSP

Purpose

The Deferred Share Plan (DSP) replaced the Value Alignment Incentive (VAI) as of performance year 2022. The DSP is a mandatory three-year deferral of a portion of the API when the total API amount for an employee equals or exceeds the threshold. The higher the API granted, the greater the amount of compensation that remains at risk through deferral into the DSP as shown in the table below.

The DSP supports Swiss Re's performance culture as the ultimate value of the deferred variable compensation depends on Swiss Re's future performance and value creation reflected in Swiss Re's share price.

Changes implemented as of performance year 2022

The following changes were implemented as of performance year 2022 (ie for deferred awards as of 2023) to better align employee and shareholder interests and to conform to market practice:

- Deferral is in the form of share units settled in shares (where legally permissible) after a three-year vesting period.
- Threshold was increased to USD 150 000 for individuals with an API equal to or exceeding this amount. The deferral percentages for the Group CEO, other Group EC members and key executives remained unchanged.

Running VAI awards (ie awarded in 2022 and before) are not impacted by these changes.

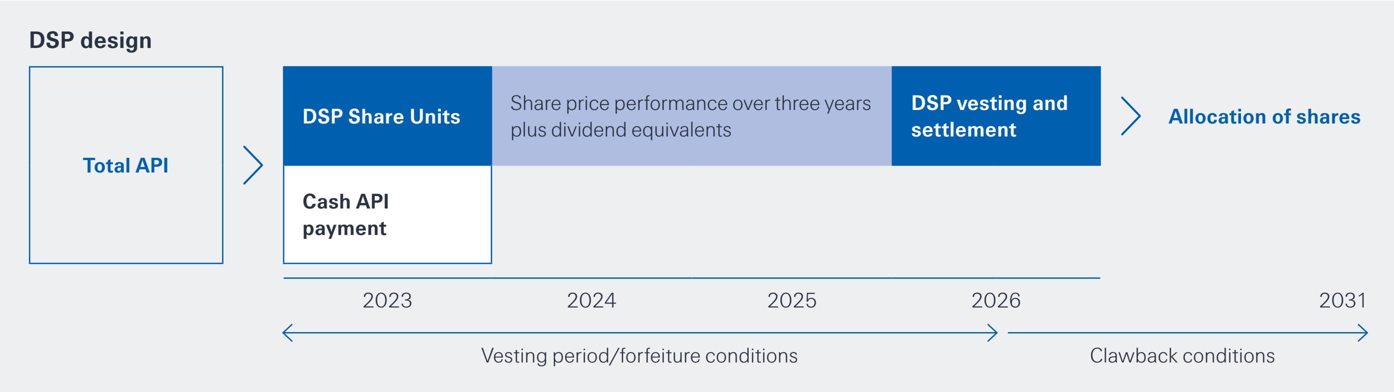
Portion of API that is deferred into the DSP

Group CEO	50% of API
Other Group EC members	45% of API
Other key executives	40% of API
All other employees	50% of the API amount exceeding USD 150 000 with a minimum deferral amount of USD 5 000 at USD 150 000 and up to a maximum of 40% of total API

Design
At grant, the award amount is converted into share units using the average of the closing share prices of 30 trading days prior to the date of grant. The share units granted under the DSP are conditional rights to generally receive, at the end of the three-year vesting period, a number of Swiss Re shares (where legally permissible).

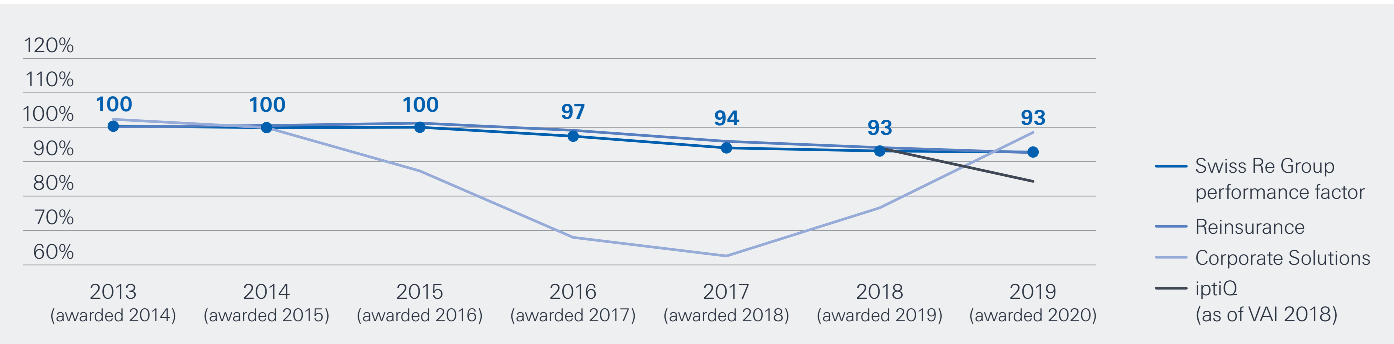
The share units are not subject to performance conditions, however, the value at vesting depends on the development of Swiss Re's share price, ensuring pay for performance and shareholder alignment. Each awarded share unit is entitled to a dividend equivalent accrued annually during the vesting period and without reinvestment.

For the full three-year vesting period, forfeiture conditions apply. Additionally, clawback provisions apply in a range of events as defined in the DSP plan rules. Swiss Re also allows for DSP participants to have shares sold or automatically settled on a net basis as applicable, to cover statutory tax and social security liabilities that may arise.



Performance outcomes for the VAI 2019
The VAI (granted until performance year 2021) is a mandatory cash deferral of a portion of the API subject to three-year average of the published Economic Value Management (EVM) previous years' business profit margin.

The VAI 2019 (awarded 2020) performance factor for the Swiss Re Group was 92.8% based on the average 2020–2022 previous years' business performance. The previous years' business losses were predominantly driven by losses and reserve increases. These included COVID-19-related losses in the years 2020 and 2021. In addition, natural catastrophe and man-made losses impacted the results as well as reserve increases relating to economic inflation for P&C Reinsurance and Corporate Solutions. The previous years' business performance in 2022 further deteriorated due to updates to the internal pandemic risk model and inflation scenarios in Reinsurance. The underlying performance was reflected in differentiated factors, eg 84.5% for iptiQ and 98.5% for Corporate Solutions.



Illustrative example of realised performance for the VAI 2019 (awarded 2020)
Granted and realised VAI are shown on the right for a grant of CHF 100 000 on the VAI 2019 (awarded 2020). For illustrative purposes, this example considers only the Group performance factor.

Long-term incentive: LSP

Purpose

The purpose of the Leadership Share Plan (LSP) is to provide an incentive for Swiss Re's senior management (including the members of the Group EC) to achieve sustainable company performance over the long term. The LSP is a discretionary, forward-looking instrument awarded to incentivise decision-making that is also in the shareholders' interest. The design of the LSP aims to:

- Direct participants' energies on earnings, capital efficiency and Swiss Re's position against peers, all of which are critical to sustain shareholder value creation.
- Focus participants on long-term forward-looking business growth.
- Attract and retain individuals with exceptional skills.
- Provide competitive compensation that rewards long-term performance.

Changes implemented for grant year 2022

As of 2022 grants, the LSP is aligning and re-balancing shareholders' and employees' interests even more closely, and better supporting the business strategy through a combination of the following changes:

- The annual targets for the ROE performance condition are aligned with externally communicated targets.
- The relative TSR vesting curve pays out for a wider range of performance, with payout starting at the 35th percentile (previously 50th percentile); the maximum payout is realised only at the 90th percentile (previously 75th percentile). This aligns with prevalent Swiss market practice, ensuring that Swiss Re maintains its competitiveness to retain talent even though achieving maximum payout becomes more challenging.
- In addition, the peer group has been reduced to 13 companies to place greater focus on global reinsurance companies.

Design

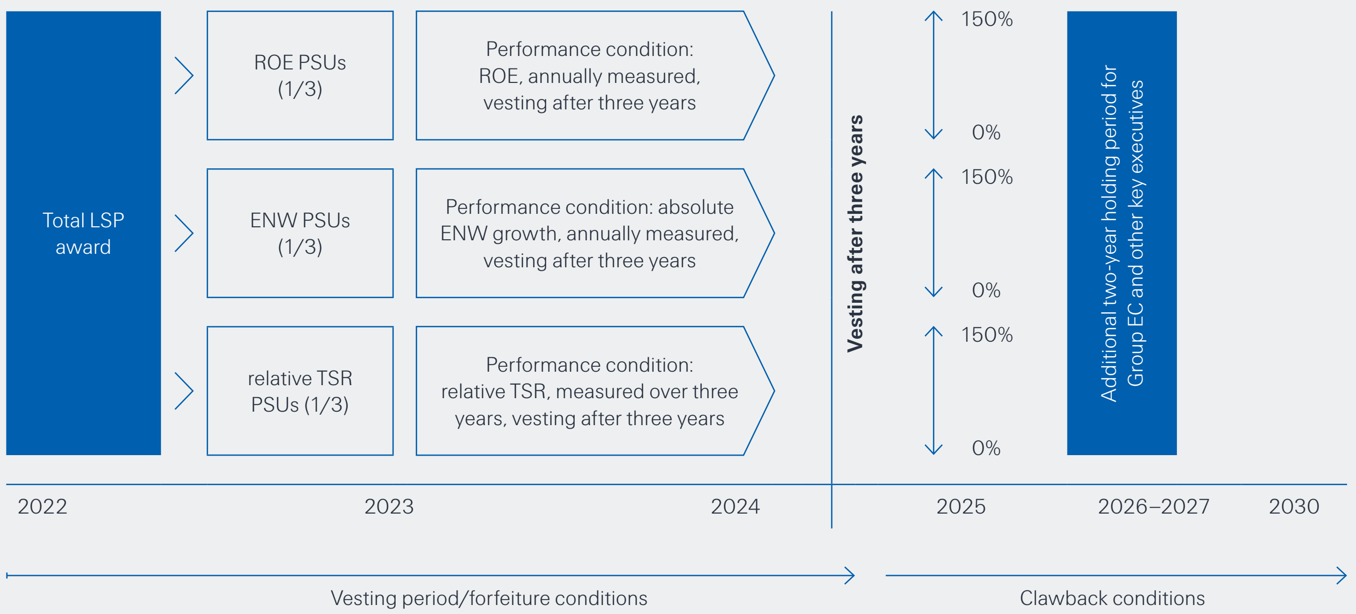
Grant levels are determined based on multiple factors including the role being performed and market benchmarks.
The size of the LSP pool is reviewed each year in the context of sustainable business performance, affordability and market competitiveness, and funded as part of the Group's total variable compensation pool.

For Group EC members and other key executives, the award value is split equally into three underlying Performance Share Units (PSUs) at the grant date. For other eligible employees, the award value is either split into 50% PSUs and 50% Share Units (SUs), or granted in 100% SUs. A valuation by a third party is used to determine the number of PSUs to be granted. The number of SUs is determined using the average of the closing share prices of 30 trading days prior to the date of grant, as SUs are not subject to performance conditions.

The vesting period, during which performance is measured, is three years. For LSP awards granted to Group EC members and other key executives, the duration of the LSP is five years, comprising a three-year vesting and performance measurement period and an additional two-year holding period.

At the end of the three-year (performance) measurement period, PSUs and SUs will be settled in shares where legally permissible. Forfeiture and clawback provisions apply in a range of events as defined in the LSP plan rules. Swiss Re also allows for LSP participants to have shares sold or automatically settled on a net basis as applicable, to cover statutory tax and social security liabilities that may arise.

Leadership Share Plan design for senior management



2022 LSP grants and PSU KPIs

Measure: ROE

The performance condition for the first PSU component is ROE. Target and maximum are defined per plan year to reflect Swiss Re's incremental performance ambitions. The vesting between threshold, target and maximum is linear.

Measure: ENW

The performance condition for the second PSU component is the growth of absolute ENW (the difference between the market consistent value of assets and liabilities of the corresponding performance year within the performance period). Depending on the level of absolute ENW growth, an ENW PSU component multiple between 0% and 150% will apply. Vesting is linear and begins only with an absolute ENW growth above zero.

Measure: relative TSR

The third PSU performance condition is relative TSR measured over three years relative to the TSR of the pre-defined peer group for the same period. This peer group consists of companies that are similar in scale and have a global footprint or a similar business mix to Swiss Re. The peer group, which is set at the beginning of the plan period, includes Allianz SE, American International Group Inc, Aviva PLC, AXA SA, Chubb Limited, Everest Re Group Ltd, Hannover Rueck SE, MetLife Inc, Muenchener Rueckversicherungs-Gesellschaft AG, Reinsurance Group of America Inc, RenaissanceRe Holdings Ltd, SCOR SE and Zurich Insurance Group Ltd.

Payout for a negative absolute TSR over the performance period is capped at 100%, subject to the Compensation Committee's right to assess the circumstances and decide on the performance multiple accordingly.

The 2022 LSP grant was based on a share price of CHF 86.15 (average closing price of 30 trading days prior to the grant date, ie 18 February 2022–31 March 2022).

Measure	Performance period	Performance tranche	Threshold	Target	Maximum
ROE	At the end of each year, the performance on the respective ROE PSU tranche is assessed and locked in[1].	2022	20% at ROE of 5%	100% at ROE of 10%	150% at ROE of 13%
		2023	20% at ROE of 5%	100% at ROE of 11%	150% at ROE of 14%
		2024	20% at ROE of 5%	100% at ROE of 12%	150% at ROE of 15%
ENW	At the end of each year, the performance is assessed and one third of the ENW PSUs is locked in[1].	2022–2024	0% for an ENW growth at 0%	100% for an ENW growth of 10%	150% for an ENW growth at 15%
relative TSR	Measured over three years.	2022–2024	0% vests at 35th percentile	Linear between threshold and the 50th percentile (50% vests), and between the 50th percentile and maximum	150% vests at 90th percentile

[1] Remains subject to forfeiture conditions.

2023 changes

For the grants to be made as of 2023, the Board of Directors decided to discontinue the use of the ENW KPI as a result of the transition from US GAAP to IFRS in 2024. The LSP 2023 will be based on two KPIs, Return on adjusted Equity and relative TSR. To account for the currently volatile US GAAP Shareholders' equity as a result of interest rate movements, Shareholders' equity will be adjusted for unrealised gains and losses. The corresponding adjusted Equity calculation will be disclosed. These changes apply only to new grants. Looking ahead, in the course of 2023, the Board of Directors will decide on the changes to the running plans which are required due to the introduction of IFRS as well as any other changes due to the new accounting standard. In addition, the volatility of the Shareholders' equity due to the interest rate movements is expected to reduce with the transition to IFRS in 2024.

Performance outcomes for the LPP 2020
Leadership Performance Plan (LPP) 2020 awards were split into three equal underlying components of PSUs with the key metrics ROE, absolute ENW and relative TSR. For ROE PSUs and ENW PSUs the performance is assessed at the end of each year over the three-year performance period and one third of the PSUs is locked in within a range of 0–100%. For TSR PSUs the performance is only assessed once, at the end of the three-year period, for a vesting range of 0–200%. For LPP 2020, the performance outcome for the ROE condition was below target during 2020, 2021 and 2022, resulting in an average PSU performance factor of 20.3%. For the ENW condition, the target was met for the year 2021 while for the years 2020 and 2022, the performance was below target, resulting in an average performance of 33.3%. With respect to the TSR condition, Swiss Re's position relative to peers was below the 50th percentile, resulting in a PSU performance factor of 0.0% for the three-year period of the LPP 2020. The combined performance factor was 14.5%.

LPP 2020: performance against targets

Measure	Performance period	Performance measure	Fair value per unit in CHF	Performance tranche	Target	Result	Final performance factor
ROE	At the end of each year, the performance is assessed and one third of the ROE PSUs is locked in within a range of 0% to 100%[1].	0% for a ROE at the risk-free rate, up to 100% for a ROE above the risk-free rate plus 7%.	78.81	2020	7.83%	–3.1%	Average performance factor: 20.3%
				2021	8.46%	5.7%	
				2022	10.0%	2.6%	
ENW	At the end of each year, the performance is assessed and one third of the ENW PSUs is locked in within a range of 0% to 100%[1].	0% for an ENW growth at 0%, up to 100% for an ENW growth at 10%.	85.17	2020	10.0%	–0.1%	Average performance factor: 33.3%
				2021	10.0%	10.6%	
				2022	10.0%	–5.8%	
relative TSR	Measured over three years.	50% vesting at the 50th percentile and capped at 200% vesting at the 75th percentile.	48.12	2020–2022	TSR positioning relative to peers	–4.3% (28th percentile)	0.0%

[1] Remains subject to forfeiture conditions.

The LPP 2020 grant was based on a grant valuation share price of CHF 104.20 (as of 21 February 2020, ie the next trading day after publication of 2019 annual results). Vesting of LPP 2020 will occur after the publication of this report with the closing share price as of 31 March 2023. Assuming a grant size of CHF 100 000 and applying the year-end 2022 share price of CHF 86.48 with the performance factors as shown in the table above would result in a realised value of CHF 18 853. The table below gives an overview of the achievements against targets for the previous plan years.

Plan year	Performance period remaining as of 31 December 2022	ROE component: performance factor for the three-year period	TSR component: performance factor for the three-year period	ENW component: performance factor for the three-year period	Combined performance factor (based on CHF 100 000 grant value, excluding share price development)
LPP 2013	Closed	99.7%	60.0%	not applicable	78.4%
LPP 2014	Closed	99.7%	81.0%	not applicable	90.4%
LPP 2015	Closed	66.7%	0.0%	not applicable	31.8%
LPP 2016	Closed	32.3%	0.0%	not applicable	13.8%
LPP 2017	Closed	1.67%	0.0%	not applicable	0.7%
LPP 2018	Closed	1.67%	146.0%	not applicable	66.3%
LPP 2019	Closed	17.3%	0.0%	not applicable	8.8%
LPP 2020	**–**	**20.3%**	**0.0%**	**33.3%**	**14.5%**
LSP 2021	1 year	to be determined in 2024			
LSP 2022	2 years	to be determined in 2025			

Global Share Participation Plan

Through the Global Share Participation Plan (GSPP), Swiss Re offers its employees an opportunity to directly participate in the long-term success of the Group. During a one-year contribution period, employees can purchase shares for up to a maximum of CHF 21 000 (capped at 10% of base salary). After the three-year vesting period, Swiss Re provides a 30% match on the number of shares held by employees. During the vesting period, matching shares are subject to forfeiture provisions. The GSPP has the same core design in all locations.

2022 DSP, LSP and GSPP termination and clawback provisions

Termination reason	DSP	LSP	GSPP
Voluntary resignation	Unvested awards are forfeited as of the date of termination of the employment relationship, unless not possible due to local law.	Unvested awards are forfeited as of the date of termination of the employment relationship, unless not possible due to local law.	Matching share awards are forfeited as of the date of termination of the employment relationship.
Redundancy	Unvested awards shall vest on the regular vesting date.	Unvested awards shall vest on the regular vesting date, subject to performance.	Matching share awards shall vest immediately.
Retirement	Unvested awards shall vest on the regular vesting date.	Unvested awards shall vest on the regular vesting date, subject to performance.	Matching share awards shall vest immediately.
Termination for cause	Unvested awards are forfeited as of the date of termination of the employment relationship.	Unvested awards are forfeited as of the date of termination of the employment relationship.	Matching share awards are forfeited as of the date of termination of the employment relationship.
Health/disability	Unvested awards shall vest on the regular vesting date.	Unvested awards shall vest on the regular vesting date, subject to performance.	Matching share awards shall vest immediately.
Death	Unvested awards shall vest immediately.	Unvested awards shall vest immediately using the performance factors as presented during the latest Compensation Committee meeting.	Matching share awards shall vest immediately.
Mutual agreement	Unvested awards may vest at Swiss Re's sole discretion. The final decision is subject to the review and approval of the Business Head, Global Head Reward, Group Chief Human Resources Officer & Head Corporate Services and, if applicable, the Compensation Committee.	Unvested awards may vest at Swiss Re's sole discretion. The final decision is subject to the review and approval of the Business Head, Global Head Reward, Group Chief Human Resources Officer & Head Corporate Services and, if applicable, the Compensation Committee.	Matching share awards are forfeited unless agreed otherwise at Swiss Re's sole discretion. The final decision is subject to the review and approval of the Business Head, Global Head Reward, Group Chief Human Resources Officer & Head Corporate Services and, if applicable, the Compensation Committee.

Additional compensation disclosures

Aggregate compensation of the Swiss Re Group
As of 31 December 2022, the Group had 14 408 regular employees worldwide (compared with 13 985 on 31 December 2021). The total compensation of the Group for 2022 amounted to CHF 2 048 million (compared with CHF 2 055 million in 2021), whereof CHF 1 962 million has been or will be paid in cash (compared with CHF 1 991 million in 2021) and CHF 86 million has been granted in share-based awards (compared with CHF 64 million in 2021). The 2021 figures have been adjusted to conform to the 2022 presentation.

The value of all outstanding deferred compensation for all employees at 31 December 2022 amounted to CHF 283 million (compared with CHF 256 million in 2021), whereof CHF 106 million will be payable in cash (compared with CHF 100 million in 2021) and CHF 176 million in shares (compared with CHF 156 million in 2021). The figure for outstanding deferred compensation is determined based on the value at grant for both cash-based and share-based compensation.

In 2022, an increase of expenses amounting to CHF 2 million was recognised for compensation in previous financial years, whereas in 2021 a reduction of expenses amounting to CHF 6 million was recognised for compensation in previous financial years.

	Performance year 2021[1, 2]		**Performance year 2022[1, 2]**	
Category	Number of employees	Values (in CHF millions)	Number of employees	Values (in CHF millions)
Base salaries[3]	13 985	1 343	14 408	1 383
Pensions and benefits	13 985	270	14 408	285
Cash Annual Performance Incentive[4]	13 008	317	14 355	271
Deferred compensation awards				
– Value Alignment Incentive[5]	801	41	152	3
– Deferred Share Plan[6]			202	15
Long-term variable compensation				
– Granted in units subject to performance conditions[7]	250	35	241	36
– Granted in units not subject to performance conditions[8]	726	29	916	35
Other payments				
– Severance payments[9]	216	13	159	12
– Sign-on payments[10]	203	7	247	8
Total[11]		2 055		**2 048**

[1] Regular employees (excludes contractors) per 31 December, compensation on actual FTE basis. For 2022 also excluded are 428 AccuQuote employees with a total compensation of CHF 19 million (base salaries CHF 14 million and pension & benefits CHF 0.6 million for 319 employees as of 31 December 2022 and variable cash-based arrangement of CHF 4 million for 389 employees active at any point during 2022).
[2] Foreign currency conversions calculated using December 2022 year-to-date FX rates for 2022 figures and December 2021 year-to-date FX rates for 2021 figures (where relevant).
[3] Prior-year figure has been restated to reflect the base salaries based on the employees' work degree on 31 December 2021.
[4] Includes cash Annual Performance Incentive and similar variable cash-based arrangements.
[5] Includes separate cash variable compensation schemes for two lines of business.
[6] As of 2022, the Value Alignment Incentive plan was replaced by the Deferred Share Plan.
[7] Includes the Leadership Share Plan as well as separate share-based variable compensation scheme for one region.
[8] Includes Share Units and Dividend Equivalent units under the Leadership Share Plan.
[9] Severance payments in the table above include i) payments under standard severance packages; ii) other payments that are over and above what is contractually or legally required; and iii) voluntary supplementary departure payments, but exclude similar legally permitted payments or garden leave which are aligned with local market practice for comparable positions in respect of amount, nature or duration. No severance payments were made to members of the Group EC.
[10] Based on values at vesting/payment.
[11] Amounts are gross before deduction of employee social security contributions. Additional and not included are company contributions to social security systems paid by Swiss Re in line with applicable laws, which amounted to CHF 215 million in 2021 and CHF 218 million in 2022; for AccuQuote in 2022 amounted to CHF 0.8 million.

Key Risk Taker compensation
Swiss Re's Key Risk Takers are executives in core risk-taking positions who decide on business and people strategies, approve budgets and can materially influence financial results or expose Swiss Re to significant operational or reputational risks.

As per 31 December 2022, Swiss Re identified 181 individuals (including 13 members of the Group EC), who qualify as Key Risk Takers. In addition to the members of the Group EC, this group consists of Business Unit EC members, other key executives and roles with core risk-taking authority. The list of Key Risk Takers is reviewed on a regular basis by Group Risk Management and Human Resources.

	Performance year 2021[1, 2]		**Performance year 2022[1, 2]**	
Category	Number of employees	Values (in CHF millions)	Number of employees	Values (in CHF millions)
Base salaries[3]	163	57	168	60
Pensions and benefits	163	17	168	17
Cash Annual Performance Incentive[4]	160	34	163	30
Deferred compensation awards				
– Value Alignment Incentive[5]	155	18	2	0.2
– Deferred Share Plan[6]			105	9
Long-term variable compensation				
– Granted in units subject to performance conditions[7]	153	17	157	18
– Granted in units not subject to performance conditions[8]	148	11	155	13
Other payments				
– Severance payments[9]	0	0	0	0
– Sign-on payments[10]	13	1	14	2
Total[11]		155		**149**

[1] Disclosure excludes members of the Group EC who were in office during the reporting year. Group EC compensation is disclosed separately in the table on page 133.
[2] The 2021 figures have been adjusted to conform to the 2022 presentation. Foreign currency conversions calculated using December 2022 year-to-date FX rates for 2022 figures and December 2021 year-to-date FX rates for 2021 figures (where relevant). Reported figures include Key Risk Takers who were in office as of 31 December of the reporting year and are full-year amounts, except for individuals hired during the year, for whom partial-year figures are reported.
[3] Prior-year figure has been restated to reflect the base salaries based on the employees' work degree on 31 December 2021.
[4] Includes cash Annual Performance Incentive and similar variable cash-based arrangements.
[5] Includes separate cash variable compensation schemes for two lines of business.
[6] As of 2022, the Value Alignment Incentive plan was replaced by the Deferred Share Plan.
[7] Includes the Leadership Share Plan as well as separate share-based variable compensation scheme for one region.
[8] Includes Share Units and Dividend Equivalent units under the Leadership Share Plan.
[9] Severance payments in the table above include i) payments under standard severance packages; ii) other payments that are over and above what is contractually or legally required; and iii) voluntary supplementary departure payments, but exclude similar legally permitted payments or garden leave which are aligned with local market practice for comparable positions in respect of amount, nature or duration.
[10] Based on values at vesting/payment.
[11] Amounts are gross before deduction of employee social security contributions. Additional and not included are company contributions to social security systems paid by Swiss Re in line with applicable laws, which amounted to CHF 6 million in 2021 and CHF 7 million in 2022.

KPMG

Report of the Statutory Auditor

To the General Meeting of Swiss Re Ltd, Zurich

Report on the Audit of the Compensation Report

Opinion

We have audited the Compensation Report of Swiss Re Ltd (the Company) for the year ended 31 December 2022.The audit was limited to the information on compensation, loans and advances pursuant to Art. 14-16 of the Ordinance against Excessive Remuneration in Listed Companies Limited by Shares (Verordnung gegen übermässige Vergütungen bei börsenkotierten Aktiengesellschaften, VegüV) in the tables marked "audited" on page 127, page 130, page 133 and page 135 of the Compensation Report.

In our opinion, the information on compensation, loans and advances in the Compensation Report complies with Swiss law and Art. 14-16 VegüV.

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 Compensation Report" section of our report. We are independent of the Company in accordance with the provisions of Swiss law and 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.

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 tables marked "audited" in the Compensation Report, the consolidated financial statements, the stand-alone financial statements and our auditor's reports thereon.

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

In connection with our audit of the Compensation Report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the audited financial information in the Compensation Report 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.

KPMG

Board of Directors' Responsibilities for the Compensation Report

The Board of Directors is responsible for the preparation of a Compensation Report in accordance with the provisions of Swiss law and the Company's articles of association, and for such internal control as the Board of Directors determines is necessary to enable the preparation of a Compensation Report that is free from material misstatement, whether due to fraud or error. The Board of Directors is also responsible for designing the compensation system and defining individual compensation packages.

Auditor’s Responsibilities for the Audit of the Compensation Report

Our objectives are to obtain reasonable assurance about whether the information on compensation, loans and advances pursuant to Art. 14-16 VegüV is 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 this Compensation Report.

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

— Identify and assess the risks of material misstatement in the Compensation Report, 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.

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 to 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.

KPMG AG

Dr. Frank Pfaffenzeller Licensed Audit Expert Auditor in Charge	Elina Monsch Licensed Audit Expert

Zurich, 15 March 2023

Climate-related financial disclosures

Swiss Re's climate-related financial disclosures aim to improve investors' and other stakeholders' ability to assess climate-related risks and opportunities in Swiss Re's re/insurance business, investment activities and own operations.

Summary

Swiss Re's climate-related financial disclosures aim to improve investors' and other stakeholders' ability to assess climate-related risks and opportunities in Swiss Re's re/insurance business, investment activities and own operations.

Swiss Re has a long-standing commitment to sustainable, long-term value creation. The Group Sustainability Strategy 2023–2025 applies to all its business activities, with targets seeking to support the achievement of Swiss Re's ambitions for the short and medium term (the next ten years), as well as for the long term (until 2050). The first ambition of the Group Sustainability Strategy centres on climate mitigation and decarbonisation, while the second focuses on climate adaptation and disaster resilience complemented by financial inclusion and healthcare protection. Swiss Re has committed to net-zero greenhouse gas (GHG) emissions by 2050.[1] The company aims to contribute to accelerating the transition to a low-carbon economy by de-risking transition projects and infrastructure, scaling up sustainable investments, decarbonising its operations and working with suppliers, clients and investees to support them in doing the same.

To advance the net-zero GHG transition in the re/insurance industry, global standards are needed for measuring and disclosing GHG emissions and for setting related targets. As a founding member of the Net-Zero Asset Owner Alliance (AOA) and the Net-Zero Insurance Alliance (NZIA), Swiss Re is actively engaged in these discussions. In 2022, Swiss Re chaired the development of the first version of the NZIA Target-Setting Protocol (TSP) and the Partnership for Carbon Accounting Financials (PCAF) Working Group that developed the Accounting and Reporting Standard for Insurance-Associated Emissions. The results of these collaborations support Swiss Re's ambition to reach net-zero GHG emissions by 2050.

Swiss Re's Group CEO Christian Mumenthaler is Co-Chair of the WEF Alliance of CEO Climate Leaders, which aims to accelerate climate action across value chains. The Alliance consists of over 120 CEOs from the world's largest corporations who have committed to net-zero GHG emissions in their own operations and across their value chains by 2050.

Managing risks related to climate change

- **Property re/insurance for natural catastrophe risks** is one of Swiss Re's core business areas and is exposed to **physical risk** from climate change. As policy terms and pricing are renegotiated annually, Swiss Re continuously adapts its pricing models to the most recent loss experience and scientific evidence relating to all major risk factors. This includes the impact of climate change, however, this is only one of many risk factors. The results of a scenario analysis for tropical cyclones (Swiss Re's largest weather-related exposures) suggest that in the long term (ie 2050), the projected increases in annual expected losses will not exceed the increase in insured weather-related losses over the past three decades.
- **Other re/insurance portfolios,** such as life & health or agriculture, are also exposed to physical risk from climate change. However, only certain sub-segments of the **agriculture** reinsurance book are affected. These are controlled through an annual review of assumptions, pricing and policy terms.
- In **life & health**, more frequent and intense heatwaves, air pollution from wildfires and vector-borne diseases are likely to increase mortality, while climate change is expected to lead to fewer deaths linked to cold temperatures. Climate change is only one of many risk drivers, some of which can contribute to lower mortality and morbidity rates. The risks in life & health are mitigated through systematic review processes for mortality assumptions based on the latest available scientific evidence.
- In Swiss Re's view, **the transition to a low-carbon economy** is not likely to present a material financial risk for its **re/insurance activities**. Swiss Re is continuing to reduce its exposure to carbon-intense business and expects that the associated risks can be managed effectively, primarily through the annual renewal of contracts and assumptions based on the most recent historic loss experience and scientific evidence. Furthermore, the climate-related policies of Swiss Re's ESG Risk Framework ensure that risks associated with transactions are identified, assessed and addressed.
- Swiss Re's approach to managing **investment-related climate risk** involves the systematic monitoring of the carbon intensity of its corporate bond, listed equity and government bond portfolios, and parts of the real estate portfolio. For the corporate bond and listed equity portfolios, Swiss Re also tracks temperature scores.
- Swiss Re continues to assess the **impact of different climate change scenarios on underwriting and investment activities**. The results for investments indicate that Swiss Re's portfolio runs a more limited transition risk in the short to medium term when it comes to an orderly scenario. Under a disorderly scenario, the implications, especially for climate-sensitive industries, are expected to be more severe. Analytics further suggest physical risks to be relevant in the long term but manageable for the real asset holdings.

[1] Net-zero GHG emissions means that for every tonne of CO_2e that cannot be avoided, a tonne must be permanently removed from the atmosphere through so-called carbon-removal approaches.

Opportunities related to climate change

Climate-related **physical and transition risks** also present opportunities for underwriting and investment activities:
- Swiss Re's natural catastrophe re/insurance business is expected to grow strongly over the coming decades due to economic growth, urbanisation and climate change.
- Its proprietary natural catastrophe loss modeling framework helps Swiss Re to provide innovative products and services to deal with the physical risks of climate change. In 2022, for example, Swiss Re helped corporate clients to quantify their physical climate risk exposure with its proprietary Climate Risk Scores.
- The **transition to a low-carbon economy** offers business opportunities across a range of sectors such as power and energy, materials and processes, logistics and transport, as well as agroforestry and food. Swiss Re is well positioned to support this transition with re/insurance cover, and is particularly active in the renewable energy sector. In 2022, Swiss Re underwrote direct and facultative re/insurance for more than 12 000 renewable energy generation facilities, which have the potential to avoid around 41 million tonnes of CO_2 emissions annually.
- Green, social and sustainability bonds contribute to **financing the transition to a low-carbon economy**. By the end of 2022, Swiss Re had achieved around 95% of its target of USD 4 billion by year-end 2024 for such bonds.

Aim to reach net-zero GHG emissions

In line with the Paris Agreement, Swiss Re aspires to reach net-zero GHG emissions by 2050:
- Swiss Re will publish absolute GHG emissions associated with selected direct and facultative re/insurance portfolios, as well as a respective target by July 2023 based on NZIA's Target-Setting Protocol and the PCAF Standard.
- Swiss Re prepared the implementation of the Thermal Coal Policy extension for reinsurance treaties that became effective at the beginning of 2023.
- In 2022, Swiss Re further **tightened its Oil and Gas Policy** for direct and facultative re/insurance.
- Swiss Re is currently developing an approach for oil and gas in treaty reinsurance and will communicate on progress later in 2023.
- For its **corporate bond and listed equity portfolio** as well as parts of the **real estate portfolio**, Swiss Re has set intermediate carbon intensity reduction targets. Swiss Re also aims to fully exit from coal-based assets for its listed equity and corporate bond portfolios by 2030, and limit maturities for fossil fuel-related investments for its infrastructure debt and corporate private placement portfolios.
- **In 2019, Swiss Re committed to net-zero GHG emissions in its operations by 2030**. To achieve this target, the company follows the motto "Do our best, remove the rest". The internal Carbon Steering Levy incentivises greenhouse gas emission reduction. In 2022, this levy was USD 112 per tonne of CO_2e. It is set to increase to USD 200 by 2030 and provides the funds to **fully compensate residual emissions through carbon removal solutions by 2030**.

Task Force on Climate-related Financial Disclosures of the Financial Stability Board (TCFD)

Swiss Re has played an active role in the TCFD since its creation by the Financial Stability Board, and began to reflect the TCFD recommendations in the 2016 Financial Report. Since then, Swiss Re has continued to expand its climate-related reporting structured along the TCFD's four pillars and eleven recommended disclosures.

Governance	Strategy	Risk management	Metrics and targets
A) Board oversight	A) Description of climate-related risks and opportunities	A) Processes for identifying and assessing climate-related risks	A) Metrics to assess climate-related risks and opportunities
B) Management's role	B) Impact of climate-related risks and opportunities	B) Process for managing climate-related risks	B) Scope 1, 2 and 3 greenhouse gas (GHG) emissions
	C) Resilience of strategy in climate-related scenarios	C) Integration into overall risk management	C) Targets to manage climate-related risks and opportunities

Source: TCFD

Climate governance

Swiss Re's governance for climate-related risks and opportunities.

Climate-related governance is embedded in the Sustainability Governance Framework. This framework includes developing, enhancing, implementing and monitoring the Group Sustainability Strategy. In 2022, Swiss Re focused on adjusting the strategy based on a materiality assessment (see Sustainability Report 2022, pages 12–15).

For a detailed overview of the Board of Directors' oversight and management's role with regard to sustainability-related risks and opportunities, including climate change, see the Corporate Governance section of the Financial Report on page 76. Sustainability, and climate-related governance in particular, is covered on page 80.

Climate-related topics are discussed at various governance levels. See pages 81–83 of the Financial Report for the Board of Directors and Group Executive committees' climate-related focus areas in 2022. Key climate-related topics addressed during the year included:

Board of Directors level:
- The Board of Directors continued to oversee the progress of Swiss Re's sustainability-related initiatives, including climate, and approved the Group Sustainability Strategy 2023–2025.
- The Finance and Risk Committee reviewed sustainability-related risks and governance, with an in-depth look at the ESG Risk Framework and its implementation across the Group. The Committee continued to monitor ESG-related claims trends as well as the impact of climate change on secondary perils.
- The Investment Committee received an update on the Responsible Investing climate action approach including the Engagement Framework for actively managed listed equity, the application of the revised Group-wide Oil and Gas Policy and the carbon intensity status for Swiss Re's investment portfolio, for which targets have been set.

Group Executive Committee (Group EC) level:
- The Group EC discussed and submitted the Group Sustainability Strategy 2023–2025 to the Board of Directors for approval. It also discussed Swiss Re's overall approach to sustainability and approved the enhanced Oil and Gas Policy.

Group Sustainability Council (GSC):
- The GSC prepared and endorsed the Group Sustainability Strategy 2023–2025 and the respective KPIs. It also assessed Swiss Re's year-end sustainability performance. The GSC endorsed, among others, Swiss Re's carbon accounting approach, governance for sustainability commitments, memberships and publications, as well as updates to the ESG Risk Framework.

Climate change and sustainability KPIs linked to compensation

Climate criteria are taken into account when distributing Swiss Re's Group Annual Performance Incentive pool.

Find out more on pages 122 and 136 in the Compensation chapter of the Financial Report.

Climate strategy

Swiss Re regularly assesses the actual and potential impacts of climate-related risks and opportunities on its business, strategy and financial planning.

Swiss Re recognises that climate change, if not mitigated, will potentially have very significant effects on society and the global economy. Swiss Re has therefore committed to net-zero GHG emissions by 2050.

Climate risk mitigation and the energy transition have been core pillars of Swiss Re's sustainability strategy since 2019. Advancing the net-zero transition and building societal resilience are the two ambitions in the Group Sustainability Strategy 2023–2025.[1] The first ambition centres on climate mitigation and decarbonisation, while the second focuses on climate adaptation and disaster resilience complemented by financial inclusion and healthcare protection. The company aims to contribute to accelerating the transition to a low-carbon economy by de-risking transition projects and infrastructure, scaling up sustainable investments, decarbonising its operations and working with suppliers, clients and investees to support them in doing the same.

The ambition to "advance the net-zero transition" is implemented with a focus on the following activities:
- Committing to a decarbonisation pathway and setting emission reduction targets for assets, liabilities and operations.
- Providing risk transfer solutions and investments to advance the net-zero transition across different sectors.
- Engaging with clients and stakeholders, building on Swiss Re´s risk knowledge.

This chapter describes risks and opportunities Swiss Re has identified in the short term (over the next five years), in the medium term (up to ten years) as well as in the long term (2050).

Re/insurance activities and own operations are covered in the first sub-section, while information about investments is in another section (see page 163).

Swiss Re's net-zero transition
For details on Swiss Re's climate targets and activities, see page 173 for underwriting, page 163 for investments and pages 180–181 for Swiss Re's own operations.

[1] See Sustainability Report 2022, pages 12–15 for further background on the Group Sustainability Strategy.

Re/insurance activities and Swiss Re's own operations

Swiss Re deems the impact of climate-change on its underwriting portfolios to be limited, manageable and therefore not material. Portfolios where climate change could have a limited impact are weather-related re/insurance covers, life & health and selected segments of casualty re/insurance.

Swiss Re's re/insurance businesses are potentially exposed to physical and transition risks related to climate change. Such risks could impact demand for re/insurance products as well as the profitability in the short, medium and long term (ie the next five years, the next decade and in 2050, respectively). In this report, these risks are disclosed for portfolios where the impact could be financially material for the Swiss Re Group.

The financial materiality of climate-related risks is determined based on a combination of quantitative and qualitative factors. The quantitative threshold for the identification of potentially relevant portfolios is 5% of total premium, reserves or expected profits. Annual expected losses are used additionally for natural catastrophe-related business. In a second step, the projected trends for climate-related risks relevant for the respective portfolios are evaluated on a qualitative basis and – if possible – on a quantitative basis. In addition, climate-related risks are disclosed for portfolios where weather-related perils are the dominant loss driver. This covers the following insurance portfolios[1]:

- Property (weather-related, including agriculture business)
- Liability
- Life & health: mortality and critical illness

The financial materiality of climate risks for Swiss Re's own operations is assessed for its main office locations.

Physical risks

Although the physical risks arising from climate change can have significant economic consequences over time, especially from a wider societal perspective, they represent a limited, manageable and therefore not material risk for Swiss Re's underwriting portfolios.

Physical risks posed by climate change could potentially affect the following areas of Swiss Re's re/insurance activities and own operations. They can:

- Impact loss experience and thus influence modelling and costing of weather-related natural perils in property insurance and other lines of business.
- Impact the insurability of property risks exposed to extreme weather events.
- Reduce/disrupt operations.

Physical risks related to climate change could also impact other business areas but overall, the impact of physical risks is not deemed to be financially material for Swiss Re at this stage, based on the models and scenarios used.[1]

Costing of weather-related perils in property re/insurance

Climate change is impacting the frequency and severity of weather-related natural catastrophes such as tropical cyclones, convective storms, floods or windstorms. Swiss Re therefore adjusts the costing of such risks on a regular basis using its proprietary loss-modelling framework.

This framework allows Swiss Re to calculate the annual expected losses (AEL) and loss-frequency distributions for its natural catastrophe businesses. With the AEL, Swiss Re identifies the financially most material weather-related portfolios that may be impacted by climate change. In 2022, the AEL for tropical cyclone North Atlantic, US convective storm, European windstorm, Japanese tropical cyclone and European flood remained the five largest weather-related perils and above the 5% threshold of total weather-related AEL. The table on page 172 contains the respective data, including a regional breakdown by peril.

Swiss Re's models show that the effects of natural climate variability dominate over climate change impacts for Swiss Re's weather-related risk exposure, affecting both the frequency and severity of extreme events in all regions. This is expected to remain the case both in the short and medium term, in line with the most recent scientific findings from the Intergovernmental Panel on Climate Change (IPCC).[2]

Since most property re/insurance contracts have a duration of one year, updated risk views are quickly reflected in the costing of natural catastrophe risks. Overall, Swiss Re considers the natural catastrophe re/insurance market a healthy risk pool, and a growth opportunity subject to risk-commensurate pricing (see Opportunities, page 159).

Swiss Re closely monitors climatic trends and other macro risk factors that are potentially material for its business over various time horizons. Physical climate change risks that affect the assessment and management of weather-related risks are:

- Confidence about observed and future climate trends is highest for risks related to the **increase in global mean surface temperatures**. For example, melting glaciers and ice caps as well as the thermal expansion of water in warmer temperatures are leading to **rising sea levels**. In turn, this can directly **increase the magnitude of storm surges**, a long-term risk for coastal regions. To date, the rise in sea levels has been relatively slow and will likely remain so in the short and medium term, allowing time for measures to mitigate the risk of coastal flooding.
- Swiss Re mitigates this risk by managing its exposure to sea level rise with up-to-date risk models and by limiting its risk accumulation in the most exposed areas to ensure a well-diversified underwriting portfolio on an annual basis

[1] In addition to property, liability, and life & health, motor also accounts for more than 5% of Swiss Re's total re/insurance portfolios. Increased precipitation could lead to more accidents in motor, but this is unlikely to have a substantial impact. While hail risk is an important risk factor in motor insurance, no clear trends due to climate change are projected for this hazard in the short, medium or long term.

[2] Climate Change 2021: The Physical Science Basis, Chapter 4: Future global climate: scenario-based projections and near-term information, IPCC, 2021.

(see also "Swiss Re's strategy to ensure the resilience of its property business in a changing climate", page 162).
- Another outcome of climate change for which there is high confidence is **increased temperature extremes**, which will continue to bring longer and more frequent heatwaves, droughts and periods of water scarcity. Heatwaves affect agriculture, workforce productivity, infrastructure, water resources, health and mortality. In addition, hot and dry conditions exacerbate **drought and wildfire risk**, as seen in different regions in recent years, including California, Southern Europe and Australia. Convective storms and other frequency perils mostly affect direct insurers, as losses from such events often remain below the retention levels of property reinsurance programmes. Reinsurers are exposed to frequency perils mainly through aggregate excess of loss structures, event excess of loss structures that have a low attachment point and proportional treaties. Swiss Re further reduced exposure to such structures by increasing retentions by clients and underwriting fewer annual aggregate covers in the 1 January 2023 renewals.
- Rising temperatures allow the atmosphere to hold more moisture, thus increasing the severity and frequency of rainfall events, which in turn is expected to amplify flood risk. However, the **rainfall-flood link is complex**. Furthermore, flood risk is also impacted by other factors such as soil sealing, urban flood protection, land-use changes and seasonal dependencies such as snow melt and soil moisture. Regional trends are already observable, but the property insurance impact for flood-related losses is limited due to the large protection gap for this peril.
- There is lower confidence in the understanding of trends in **modes of climate variability**, which encompasses atmospheric and oceanographic circulation changes. Given their material impact on extreme weather events, Swiss Re performs internal research and collaborates with leading scientists to integrate the impact of observed climate change in its in-house loss models, with an additional forward-looking component to capture anticipated climate change impacts for the upcoming underwriting seasons (see Resilience under different climate scenarios, page 161, and Climate risk management, page 167).

Impact on the insurability of property risks exposed to extreme weather events

Climate change could affect the insurability of risks exposed to extreme weather events through three main factors:
- Assessability
- Economic viability[1]
- Randomness of risk

Assessability

In order to offer insurance protection, re/insurers need to be able to assess the frequency and severity of possible losses from extreme whether events. As climate change affects the risk landscape, Swiss Re regularly updates its loss models to such factors and expects extreme weather risks to remain assessable by scientific methods in the short, medium and long term. Swiss Re's in-house development of risk models for weather-related perils ensures full modelling transparency and the ability to efficiently assess and update models if new scientific evidence becomes available.

Economic viability

An increase in the frequency and severity of extreme weather events requires a rise in premium. If large increases are required, insurance may no longer be economically viable for the owners of certain objects.

Coastal areas affected by tropical cyclones are particularly at risk. While there is substantial uncertainty in the projection of frequency and severity of tropical cyclones in the short and medium term, rising sea levels are expected to lead to non-linear increases in storm surge risk for coastal areas in the long term. Additionally, warmer temperatures will increase the severity of rainfall induced by tropical cyclones. In combination, these developments might push re/insurance prices in coastal areas affected by tropical cyclones beyond affordable limits, especially if counteracting climate adaptation measures were to remain insufficient.

If re/insurance became unaffordable for certain areas/risks, demand for re/insurance would decrease. However, this would likely be at least partly offset by increasing demand in less exposed areas, as people relocate, risk awareness increases and premium rates rise.

Randomness

Finally, insurability depends on the random nature of a risk. If risks increase to a level at which losses are certain and predictable, then insurance is no longer the right instrument. For example, if there is permanent flooding due to rising sea levels, insurance is not the appropriate financing mechanism to protect assets.

Impact of weather-related perils on agriculture reinsurance

Agriculture re/insurance is a short-term cover against perils like hail, drought, excess rain and frost, however, the extent of covers provided diverges across markets. Climate change is impacting agriculture re/insurance, but this is limited to the sub-portfolios of crop and forestry, which are mostly exposed to hail and drought. Global climate models predict increasing trends for drought and frost in the short, medium and long term, but not in all regions. While hail is an important peril for Swiss Re's agriculture reinsurance book, constituting roughly 40% of respective premiums, there is low confidence, ie high uncertainty about future changes in hail activity driven by climate change in most regions. The same is the case for excess rain activity. As a result, less than half of Swiss Re's total agriculture book is considered susceptible to climate change.

The impact of climate change on Swiss Re's agriculture book is mitigated by several factors:
- Agriculture insurance is a short-tail business, which means that terms and conditions, as well as the portfolio composition are reviewed and adjusted annually.
- Climate change that has manifested to date is reflected in historical losses, which are the main basis for risk modelling, and Swiss Re is observing increasing prices in agriculture re/insurance markets.
- Swiss Re continuously enhances forward-looking modelling.
- Climate adaptation measures taken through agro-management practices such as new seeds, fertilizers, etc.

[1] In public discussions affordability is also used as a term for economic viability

Climate change's impact on life & health re/insurance

Swiss Re does not consider climate change to have a financially material negative effect on its life & health portfolios in the short, medium or long term.

Climate change can affect human health, and can therefore impact Swiss Re's life & health portfolios through several channels. The most pronounced risks are expected to be extreme heat, air pollution and increased exposure to infectious diseases spread by non-human vectors. Consequently, non-communicable diseases, especially cardiovascular diseases, respiratory illnesses, lung and skin cancers, among others, and increased spread and emergence of tropical infectious diseases could become more frequent for the more severe climate change scenarios.

More severe and frequent heatwaves have the potential to increase the incidence of heart attacks and strokes, thus affecting both mortality and critical illness portfolios. Heatwaves will extend to regions previously not affected, thereby increasing the share of the world's population impacted by such conditions. However, the extent of an individual's direct exposure to risk factors and access to mitigation tools will be the determinants of their overall risk.

A general rise in temperature and increased humidity enables vector-borne diseases to enter new areas. Climate change will extend the transmission season and geographical range for many infectious diseases, allowing them to spread into previously uninhabitable regions. Lyme disease, avian influenza, meningitis, dengue fever and other tropical bacterial and viral infections are therefore projected to rise.

Severe drought conditions can lead to more wildfires, which cause air pollution. Such air pollution can extend to regions far from the fire itself and last for weeks after the event, leading to deteriorating health conditions and increasing mortality experience.

The above risks will mostly impact clinically vulnerable individuals with pre-existing comorbidities, or groups such as the elderly and the disabled. Increasingly frail, ageing populations could push up annual deaths. Without mitigation action, mortality rates and healthcare costs could rise, leading to higher claims costs than anticipated by re/insurers.

Scientific evidence quantifying the impact of climate-related heatwaves, air pollution and vector-borne diseases on health and mortality outcomes is still limited. There is additional uncertainty around how climate change will play out in conjunction with other key adverse trends such as increases in unhealthy behaviours or obesity. Swiss Re follows the scientific discussion and incorporates new evidence into its mortality assumptions on a regular basis (see Climate risk management, page 167).

Current research suggests that in Swiss Re's main life & health markets, ie North America and Northern Europe, extreme cold is currently a more substantial driver of mortality than extreme heat.[1] Consequently, Swiss Re does not expect a financially material net adverse impact from climate change on mortality for these portfolios in the long-term. Reductions in deaths related to cold temperatures will outweigh the rise in deaths linked to heat. A modest impact at most would only arise in the more distant future, ie after 2050, and in severe scenarios (see Life & health re/insurance section in Resilience under different climate scenarios, page 162).

Southern Asia and Africa are estimated to see large upticks in heat-driven mortality by 2050, whether climate change is moderate or unmitigated. There may be a potential rise in critical illness claims in countries where extreme heat is most prevalent.

Several factors are expected to reduce the impact of climate-related risks on Swiss Re's Life & Health business:
- Policy holders can reduce severity and duration of exposure to the elements.
- Affordable mitigation measures such as air purifiers, air cooling or increased hydration will further limit the impact on insured lives.
- In some climate scenarios, anthropogenic air pollution, a driver of claims today, is expected to improve, as countries push for more stringent emissions limits.

Swiss Re's own operations

According to Swiss Re's in-house catastrophe loss models, severe weather risks are potentially of importance for some operations, mainly in Florida and on the north-eastern coast of the US. However, even assuming an extreme climate change scenario, Swiss Re does not expect any of its office locations to be exposed to risk levels that would undermine their economic viability. Additionally, robust and regularly tested business continuity plans covering all locations are in place to mitigate the risk of climate-related disruptions (see Climate risk management, page 167).

[1] See The risk of a lifetime: mapping the impact of climate change on life and health risk, Swiss Re Institute, pages 19–20.

Transition risks

Swiss Re does not consider the transition to a low-carbon economy a material financial risk for its re/insurance business in the short, medium and long term. It expects to be able to manage the associated risks effectively thanks to the established processes for reviewing underwriting assumptions based on the most recent historic loss experiences and scientific findings, as well as the annual renewal of contracts.

Swiss Re has assessed the impact of the following transition risks on its property and casualty re/insurance business:
- Policy and legal risks
- Technology risks
- Market and reputational risks

Policy and legal risks
As the transition to achieving a net-zero emissions economy by mid-century or earlier gains momentum, material policy-triggered changes are expected for the real economy in areas such as power and energy, materials and processes, logistics and transportation, and agroforestry and land-use practices. Such policy changes may include regulations to increase energy and material efficiency, mandates to rapidly scale up renewable energy and clean mobility, the removal of fossil fuel subsidies, the introduction of carbon pricing, policies addressing land-use change and agricultural practices, as well as the scaling up of carbon removal technologies.

This requires a solid understanding of the associated policy and legal risks. Certain policy risks might also influence the risk quality of some insured assets in the medium to long term due to factors such as increased cost pressure and reduced asset maintenance. Swiss Re believes it can manage these risks effectively by frequently reviewing the underwriting assumptions using its formalised process.

Risks related to climate change litigation (CCL)
Swiss Re identified CCL as a potential risk over a decade ago. Since the adoption of the Paris Agreement in 2015, the number of CCL court cases has more than doubled to a total of more than 2000 cases worldwide in 2022. These activities are currently focused on the US, Europe and Australia, but they are spreading to other jurisdictions as well. Most of the cases are directed against governments and public entities, but private companies are also increasingly being targeted. For now, most of the cases brought up aim to change behaviour rather than asking for monetary compensation. The potentially insurance relevant cases fall mostly within one of the following four categories: contribution to climate change, improper disclosure, misleading product disclosures and mismanagement of climate-related risks.

To date, many of the CCL decisions in the cases that are potentially relevant for insurers were made in favour of defendants. They have therefore not led to significant claims for the re/insurance industry. However, CCL has the potential to cause moderate losses in certain segments of casualty insurance in the short to medium term.

While Swiss Re has not faced any significant CCL claims to date, it actively monitors and assesses CCL risks in its underwriting and research units. In particular, Swiss Re tracks advances in climate attribution science, CCL cases, regulatory changes and developments in legal concepts for different geographies, industries and lines of business in order to assess potential exposures under different scenarios. Swiss Re is currently also developing a methodology to monitor potential exposures from CCL. Potential CCL exposures are mitigated by a CCL-specific underwriting strategy (eg limited risk appetite for certain industries) in addition to the reduction of carbon exposures as early as 2018 (see General sustainability risks in Swiss Re's re/insurance business, page 168). However, cases might still arise from runoff for a number of years.

Technology risks
Swiss Re is likely to be impacted by the technological transition in two ways:
- New or rapidly developing technologies by definition do not have loss histories and thus may be challenging to price accurately. Possible loss scenarios and the related expenses need to be developed. Once these are ready and tested, new technologies are likely to present a sector with an opportunity for growth. Offshore wind projects, for example, have developed into one such growth opportunity (see Opportunities related to transition risk, page 160). The shift of global motor vehicle fleets away from internal combustion engines and towards electric motors is another example. This development entails the implementation of a variety of new technologies, from new lightweight materials to advanced battery systems, which will also impact loss patterns.
- New low-carbon technologies are likely to gradually displace traditional, fossil fuel-based ones. For example, power generation will shift to wind and solar farms delivering intermittent power. This could affect other elements of power systems that had originally been designed for stable base load electricity delivered by fossil fuel power plants.

While the pace of technological development in the underlying industries is high, the impact on re/insurance portfolios is expected to be incremental. It takes time for new technologies to fully replace old ones across entire portfolios. Dealing with such technology changes is business as usual for Swiss Re. As most re/insurance contracts are renewed annually, Swiss Re can develop the appropriate underwriting experience, loss adjustment and claims handling.

Market and reputational risks
With policy, legal and technological changes as a backdrop, consumer and investment preferences are expected to further shift toward less carbon-intensive products and services over time. Swiss Re continues to adapt to the related changes in re/insurance markets.

In addition, to support their decision-making, investors, regulators and other stakeholders have started to ask for greater transparency and more information regarding re/insurers' exposure to emission-intensive sectors as well as their contribution to low emissions-related risk transfer solutions.

Companies whose disclosures are misleading or overstate their climate efforts, which is referred to as greenwashing, can sustain reputational and legal damage.

Transition risks for the real economy and their relevance for re/insurance underwriting

	Transition risks	Financial impacts on real economy	Impacts on insurance liabilities
Policy and legal	• Removal of fossil fuel subsidies and introduction of CO_2 taxes • CO_2 regulation and mandates • Exposure to litigation for historical and current CO_2 emissions • Emission disclosure requirements	• Write-offs, asset impairment and early retirement of existing assets due to policy changes (ie stranded assets) • Increased operating costs (eg higher compliance costs, increased insurance premium) • Increased costs and/or reduced demand for products and services resulting from fines and judgments against CO_2-intensive sectors • Increased regulatory pressure for decarbonisation and disclosure	• Climate policy-induced economic effects may lead to higher claims for certain lines of business (eg credit insurance) • Increased operating risk and lower risk quality for impaired assets may impact property insurance (eg due to increased cost pressure and reduced asset maintenance) • Increased litigation activity may become relevant for casualty insurance (eg general liability, directors & officers insurance) • Requirements to disclose climate-related impacts of insurance business activities
Technology	• Substitution of existing products and services with lower emissions options • Costs to transition to lower emissions technology	• Write-offs, early retirement of existing assets • Research and development expenditures in new and alternative technologies	• Shift in predominant energy technologies could lead to a change in the liability structure and diversification for insurers • New technologies without established loss histories may increase uncertainties in property and engineering insurance
Market and reputation	• Uncertainty in market signals and in client behaviour • Decarbonisation efforts required by business partners • Increased stakeholder concern	• Reduced demand for certain goods and services due to shift in consumer preferences • Change in revenue mix and sources • Increasing costs for decarbonising business models • Reduction in capital availability • Increased reputational risk for high-emission sectors	• Premium volume in engineering and property insurance will shift from CO_2-intensive assets and activities to CO_2-efficient ones • Reputational risk for insurers via insured emissions (eg insurance of thermal coal) may further intensify • Potential societal backlash due to transition in fossil fuel-dependent societies causing market decline (eg due to political unrest)

Source: Swiss Re, adapted from TCFD

Opportunities
Climate change also presents opportunities for Swiss Re in the short, medium and long term. Developing corresponding risk transfer products and related services is a core part of Swiss Re's Group Sustainability Strategy 2023–2025 (see Climate strategy, page 153).

Opportunities related to physical risks

Swiss Re's re/insurance products against natural catastrophes constitute one of its core businesses that help clients cope effectively with current climate risks. In 2022, premiums for natural catastrophe covers amounted to USD 4.8 billion, or 18% of corresponding Property & Casualty Reinsurance and Corporate Solutions premiums.[1]

The natural catastrophe market as well as the broader property insurance market are expected to see strong growth in the long term. A recent *sigma* report by Swiss Re Institute projects that the global property insurance market is set to experience stronger growth than the overall economy until 2040.[2] While economic growth and increasing urbanisation in emerging markets will contribute 80% of additional premiums over the next two decades, 20% of additional premiums projected until 2040 are due to increased physical risk because of climate change. At the same time, the share of uninsured losses remains high, indicating further growth potential.[3] Swiss Re also helps expand re/insurance protection to non-traditional clients (in particular in the public sector), underdeveloped markets and by offering innovative risk transfer instruments.

Products and services that tackle physical climate risk

Examples of recent deals that tackle physical climate risk include:

Providing natural catastrophe cover to protect public sector exposure: Following a successful five-year pilot in which Swiss Re was the lead reinsurer for the Uganda Agriculture Insurance Scheme (UAIS), Uganda's government decided to extend the scheme for another four years. Today, this public-private partnership protects more than 350 000 smallholder farmers in Uganda with a range of products including parametric crop weather index insurance, multi-peril crop insurance, livestock insurance and poultry insurance. Additionally, farmers receive training to help them adapt their techniques to climate change. Thanks to the success of the insurance scheme, the government aims to expand the programme to more farmers, while Swiss Re is exploring the possibility of supporting the replication of the scheme in neighbouring countries.

Climate Risk Scores: Helping corporate clients quantify their physical climate risk exposure: Swiss Re's proprietary Climate Risk Scores help companies assess future risks resulting from weather-related hazards exacerbated by climate change. The scores indicate the effects of future climate risks by combining robust science-based data used by the Intergovernmental Panel on Climate Change (IPCC) with Swiss Re's in-house hazard layers, such as flood and storm surge zones.

Read more about these solutions in the Sustainability Report, pages 26 and 29.

1 Estimated written premiums for losses exceeding USD 20 million. Net of external expenses such as brokerage and commissions. Property & Casualty Reinsurance and Corporate Solutions gross premiums written excluding external cost for brokerage and commissions.
2 Swiss Re Institute sigma No 4/2021, More risk: the changing nature of P&C insurance opportunities to 2040.
3 See Swiss Re Institute, Resilience Index 2022: risks to resilience on the rise again after a year of respite; and www.sigma-explorer.com.

Opportunities related to transition risks

The transition to a net-zero emissions economy offers business opportunities for Swiss Re across a range of sectors such as power and energy, materials and processes, logistics and transport, and agroforestry and food. In a study, McKinsey estimates that in order to achieve net zero by 2050, new capital spending for low-emissions assets will amount to around 3% of global GDP, or a cumulative USD 105 trillion. This is on top of current spending of USD 170 trillion.[1] For the power sector alone, the International Energy Agency estimates that achieving net-zero emissions could create a cumulative USD 27 trillion market opportunity for manufacturers of wind turbines, solar panels, lithium-ion batteries, electrolysers and fuel cells.[2] Realising the potential will require a strong contribution from private capital providers.

Swiss Re has developed an approach to benefit from transition opportunities in the short, medium and long term. This includes further developing existing business areas, such as renewable energy. In addition, new technological segments have been identified and assessed in terms of re/insurance market potential in the short, medium and long term. Based on this assessment, business areas have been prioritised for investments in research, and new business propositions will be developed.

Swiss Re is re/insuring renewable energy projects across all lines of business. In 2022, Swiss Re underwrote direct and facultative property and engineering re/insurance (construction and operation) for more than 12 000 renewable energy generation facilities, which have the potential to avoid around 41 million tonnes of CO_2 emissions annually.[3]

Swiss Re Corporate Solutions is a recognised market leader for offshore wind risks, but Reinsurance is also active in the renewable energy space. Reinsurance engineering premiums from renewable energy power generation have seen strong growth of 20% per year over the past decade and accounted for more than 60% of total engineering premiums for power generation in 2022.

Business solutions that tackle energy transition risks

Examples of recent deals that tackle energy transition risks include:

Expanding South Korea's offshore wind capacity: As the lead reinsurer for the construction of three offshore wind farm projects, Swiss Re has been supporting the development of renewable energy in South Korea. Once the final construction phase is complete in 2025, these projects will have a capacity of approximately 190MW. Swiss Re has also provided technical advice and risk management expertise for several additional projects whose construction is set to begin in 2025. With a total planned capacity of 5GW, these projects represent approximately one third of Korea's target to reach 12GW of offshore wind capacity by 2030.

Helping to unlock financing for the transition to renewable energy: In 2022, Swiss Re Corporate Solutions partnered with the German bank NORD/LB to establish a co-investment programme to facilitate the financing of renewable energy projects. This partnership combines NORD/LB's track record in structuring renewable energy investments with Swiss Re Corporate Solutions' expertise in credit risk-management solutions for banks. As part of the co-investment programme, NORD/LB originates and arranges eligible loans, following which Swiss Re Corporate Solutions insures a portion of NORD/LB's credit risk, covering the bank in the event of non-payment by the borrower. By using pre-agreed eligibility criteria, the investment programme allows for more efficient deployment of financing to renewable energy projects by enabling the bank to reduce credit risk, optimise its portfolio and extend larger loans for such projects. At the end of 2022, Swiss Re had supported six renewable energy projects, which will contribute 1 300MW of additional power generation capacity once the assets are operational.

Read more about these solutions in the Sustainability Report, page 24.

[1] The net-zero transition, McKinsey & Company, 2022.
[2] World Energy Outlook 2021, International Energy Agency 2021, https://www.iea.org/reports/world-energy-outlook-2021.
[3] Assuming the electricity produced by the renewable facility replaces currently produced electricity with average CO_2 emissions per kWh for advanced markets.

Resilience under different climate scenarios

Scenario analyses for natural catastrophe re/insurance as well as life & health confirmed Swiss Re's view that climate change is only one of many risk drivers and it does not pose a fundamental threat to the resilience of Swiss Re for its re/insurance risk taking.

For natural catastrophe re/insurance, Swiss Re´s research has shown that for the peak exposures, the projected increases of the annual expected loss (AEL) do not exceed historic trends, even for the most severe scenario.

Quantitative scenario analysis focusing on climate only is therefore an inadequate instrument for driving today's underwriting decisions. Regularly updating natural catastrophe models and diversification with regards to regions, lines of business, sectors and clients is more relevant.

Swiss Re uses qualitative and quantitative scenario analyses to assess the resilience of its strategy under different climate scenarios. The scenarios by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) serve as the common narrative for the analysis of investment and underwriting portfolios.[1] The NGFS scenarios incorporate different degrees of transition risks along different paths of global warming in the selected orderly, disorderly and hot house scenario:

- **Orderly:** Climate policies are introduced early and become gradually more stringent. Net-zero CO_2 emissions achieved before 2070, resulting in a 67% chance of limiting global warming to below 2°C. Physical and transition risks are both relatively low.
- **Disorderly:** Climate policies are delayed or divergent across countries and sectors. Emission reductions need to be sharper than in the orderly scenario to limit warming to the same target. The result is higher transition risk.
- **Hot house world:** Some climate policies are implemented in some jurisdictions, but global efforts to limit warming are insufficient. Emissions grow until 2080, potentially leading to 3°C+ of warming until 2100 and severe physical risks.

The NGFS scenarios are linked to Representative Concentration Pathway (RCP) scenarios, which Swiss Re uses for natural catastrophe re/insurance.[2] Differences of the projected physical impacts between RCP 2.6, RCP 4.5 and RCP 8.5 in the short to medium term (ie in the next ten years), but also in the long term (ie 2050) are minor, however, a considerable divergence is expected for the second half of the 21st century. Furthermore, there is significant uncertainty within a single scenario (eg RCP 8.5), mainly caused by different modelling assumptions used in various climate models.

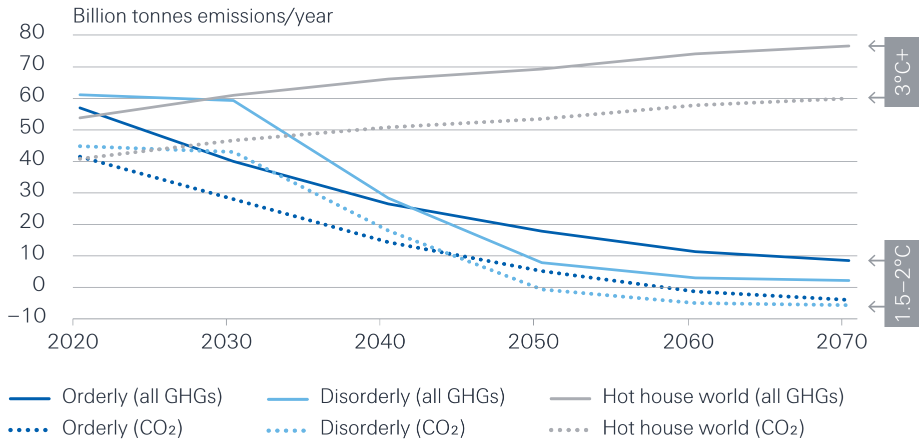
Property natural catastrophe re/insurance

The scenario work revealed that the expected climatic changes for tropical cyclones in the US and in Japan over the next 30 years are manageable for Swiss Re. The projected increases of AEL are small with 0.3–0.6% per year for a constant market portfolio (RCP 8.5, medium impact). Under the most severe scenario AEL are forecast to increase 1.6–2.2% (RCP 8.5, severe impact). This is less than the increase of normalised insured losses from weather-related natural catastrophes over the past three decades (3% per year).[3]

Looking at climate effects in isolation, as in the scenario pilot, means ignoring the other factors that will shape Swiss Re's future re/insurance book and thus also future AEL. These factors include, but are not limited to, strategy and underwriting risk appetite which can be redefined during the annual renewal process of property re/insurance business, market conditions, capital costs, insurance penetration, socio-economic developments, resilience of buildings or infrastructure against storms, and other climate adaptation measures. Since Swiss Re's re/insurance book and current AEL are the result of a complex interaction between all of these factors, any scenario analysis over the 2050 time horizon would have to consider them, in the process rendering the impact of climate change on the resulting AEL marginal.

The scenario work has provided limited steering insight. In view of the short-tail nature of property natural catastrophe business, there is no need for Swiss Re to

Emissions
Representative NGFS scenarios[1]



Source: NGFS

[1] Swiss Re's analysis is based on the representative scenarios of the Phase I NGFS Climate scenarios.
[2] RCP scenarios represent possible future concentration trajectories of greenhouse gases. The scenarios are named after the resulting radiative forcing at the end of the 21st century, eg 8.5W/m2 for RCP8.5, where no mitigation measures nor technical innovation will limit temperature increases. SSP narratives describe alternative pathways for future society.
[3] See Swiss Re TCFD report 2021, page 166–168 for details.

act today in anticipation of possible long-term future changes in the risk from extreme weather events while ignoring relevant factors, including adaptation and mitigation measures.

For decision-relevant analytics, it is important to understand today's risk landscape, including the current climate, irrespective of whether the changes are caused by climate change or natural variability, and whether current market prices reflect the risk level. Swiss Re has therefore made significant efforts over the past decade to embed climate change and other relevant risk drivers into key risk models and to model a present day/near future risk landscape rather than relying on an average of the recent past.

Swiss Re's strategy to ensure resilience of its property business in a changing climate

1. Diversification of insured natural hazards with regard to regions, lines of business, sectors and clients.
2. Flexible management and steering of weather-related exposure through limited duration of re/insurance contracts (typically one-year contracts for property insurance) as well as active portfolio steering (see Costing of weather-related perils in property, pages 154–155).
3. Regular updates of Swiss Re's in-house natural catastrophe models to ensure adequate costing of natural hazards for the current and near-term climate and socio-economic environment.
4. A qualitative scenario process to assess the most material impacts of climatic and socio-economic trends that affect insured risks. This is supported by quantitative assessments of the likely range of expected changes to determine their materiality over different time horizons and emission pathways.

Life & health re/insurance

Swiss Re does not expect any of the analysed climate scenarios to have a major impact on its life & health portfolio, as excess mortality from heat is likely to be offset by lower mortality due to cold temperatures in the regions with Swiss Re's largest life & health exposures.

For life & health, the scientific research on the impact of climate change on health and mortality is still too limited to reliably inform quantitative scenario work. Furthermore, when considering the impact of climate change on health outcomes, other key variables also play a significant role. These include, but are not limited to, age, gender, health comorbidities and socioeconomic status, and non-uniformity across regions (see Climate strategy, page 156). Qualitative approaches therefore remain the best method for assessing risks from climate change for Swiss Re's life & health businesses.

In the interests of providing directional vectors, Swiss Re derived excess mortality projections from academic literature and expert reports. The projections cover the effects related to air pollution, heat and cold, and provide some directional guidance on the expected long-term trends in mortality. However, the results apply to the general population, which has a different structure than Swiss Re's portfolio of insured lives, and the forecasts are subject to a very high degree of uncertainty.

Under the more likely climate scenarios RCP 2.6 and RCP 4.5, a low level of net excess mortality is anticipated globally until 2100. In North America and Europe, the regions where Swiss Re's portfolio is concentrated, no excess mortality is expected. Increased mortality from heat is expected to be offset by large reductions in mortality from cold temperatures attributable to causes such as respiratory viruses and fewer deaths due to old age, as climate change reduces the severity of winters.

A pessimistic scenario of unmitigated climate change (RCP 8.5) may result in global excess mortality of up to 5% in 2100. Again, the impacts will be concentrated in regions where Swiss Re does not currently have significant portfolio exposure.

Swiss Re expects that access to mitigation measures, less exposure to environmental factors compared to the general population and better health of the insured population would lead to better outcomes for Swiss Re's portfolio compared to the general population – and in some scenarios, Swiss Re could even see a modest mortality improvement.

Casualty re/insurance

Swiss Re closely monitors the climate change litigation (CCL) landscape, potential claims scenarios and their impact on its casualty book (see page 157). Swiss Re also assesses the CCL activity and how such activity may develop under different scenarios. While it is probable that CCL activity will continue in all scenarios, it is likely to increase in the hot house and disorderly world.

Investments

Addressing the risks and opportunities arising from climate change, Asset Management has embedded its climate action approach into the Responsible Investing strategy in a structured manner. The climate action approach comprises four steps to align the portfolio with a 1.5°C world by 2050: set targets, take action, measure and report.

Swiss Re Asset Management's climate action approach:

Climate action
Enable the transition to a net-zero GHG emissions economy and mitigate climate-related risks

Set targets	Take action	Measure	Report
Set targets to achieve net-zero GHG emissions by 2050	Actively manage climate risk and support real economy transition	Measure and monitor trajectory towards net zero	Inform shareholders and stakeholders transparently

In alignment with Swiss Re's commitment made as a founding member of the Net-Zero Asset Owner Alliance (AOA), it set intermediate climate targets in 2020, to be achieved by 2025[1] (see Climate targets, page 174), with the aim to transition the investment portfolio to net-zero GHG emissions by 2050. In this context, "sub-portfolio" refers to the current investment portfolio in scope to set emission reduction targets in the table below. The actions to actively manage climate risk and support the real economy transition ("Take action") are explained in this chapter, while the metrics to monitor the trajectory towards net zero ("Measure") can be found in the Metrics and targets section of this report (see pages 175–179).

Swiss Re Asset Management's climate targets by 2025[1]

Financing transition
- Green, social and sustainability bonds: USD 4 billion
- Social and renewable energy infrastructure debt: + USD 750 million vs 2019

Engagement
- Topic: Alignment of business model with 1.5°C target

Sub-portfolio
- Listed equity and corporate bond portfolio: –35% carbon intensity (Scope 1 and 2 emissions) vs 2018
- Swiss and German real estate portfolio: –5% carbon intensity (Scope 1,2 and 3 operational emissions) vs 2018

Sector
- Listed equity and corporate bond portfolios: coal phase-out by 2030
- Infrastructure debt and corporate private placements: maturity limitation for fossil fuel-related investments

In 2022, Swiss Re enhanced its climate action on the investment side with the following activities:
- Introduced reporting on absolute GHG emissions for the corporate bond and listed equity portfolio as well as for the company´s Swiss and German real estate assets (see pages 175 and 178)
- Strengthened fossil fuel-related thresholds to exclude companies that have more than 10% of their upstream production located in the Arctic AMAP[2] region (Norwegian production is exempt)

Transition and physical risks
Transition risks may arise from climate change mitigation and adaptation requirements to limit the global temperature rise. Swiss Re considers these transition risks to be mainly relevant in the short to medium term[3] for the listed equity and corporate bond portfolios, as well as the Swiss and German real estate portfolio. The key risk faced by asset owners is that a changing policy and regulatory environment, such as increased taxes and/or new regulations, may impact asset values. The devaluation of investments can result in a specific company or a particularly exposed industry becoming a stranded asset in investment portfolios.

Furthermore, governments and regulators have accelerated the development of (mandatory) reporting requirements and risk assessments to steer and transition climate change-related market activities towards more sustainable alternatives. Swiss Re also recognises that litigation risk for companies remains elevated. While Swiss Re considers these transition risks to be tilted to the short to medium term[3], the carbon intensity reduction targets for the listed equity and corporate bond portfolio, as well as the Swiss and German real estate portfolio can also be seen as a way to manage these risks to a certain extent.

[1] The achievement of targets is measured at year-end 2024, and must be reported in 2025.
[2] Arctic Monitoring and Assessment Programme.
[3] Short term: < 5 years, medium term: 5–10 years, long term: 10 years and more.

Physical risks are relevant where assets are exposed to natural perils, such as Swiss Re´s infrastructure debt and real estate holdings. In this context, most relevant are acute, event-driven impacts due to natural perils, eg tropical cyclones and floods, which result in direct damage to assets. For Swiss Re's assets, physical risks are expected to mainly become relevant in the long term.

Swiss Re considers the collaboration with investee companies via "Financing transition" and "Engagement" key approaches in the global transition towards a low-carbon economy. However, divestments are used to reduce the risk of stranded assets.

Swiss Re no longer directly invests in coal mining, coal-fired power generating companies and oil sands-related companies that are above set thresholds. In line with the Group-wide ESG Risk Framework, Swiss Re avoids investments in the 10% most carbon-intensive oil and gas companies, and since 2022 in companies, that have more than 10% of their upstream production located in the Arctic AMAP region (Norwegian production is exempt).

Swiss Re Asset Management's fossil fuel-related thresholds implementation timeline

2016	2018	2019	2020	2022
Coal production (relative)	Oil sands production (relative)	Coal production (absolute)	Coal production expansion	Oil and gas production (relative)
• Companies that generate 30% or more of their revenues from thermal coal mining • Companies that use at least 30% thermal coal for power generation	• Companies that generate 20% or more of their revenues from oil sands operations	• Mining companies that produce at least 20 million tonnes of coal per year • Power generating companies with more than 10GW installed coal fire capacity	• Companies that have more than USD 100 million capital expenditure p.a. on coal exploration • Power generating companies that plan coal-fired capacity expansion of more than 300MW p.a.	• Companies that have more than 10% of their upstream production located in the Arctic AMAP region (Norwegian production is exempt)
			Oil and gas companies	
			• 10% most carbon-intensive oil and gas companies	

For Swiss Re's infrastructure debt and corporate private placement portfolios, the company applies dedicated fossil fuel guidelines, which are reviewed annually. In accordance with the guidelines, Swiss Re excludes any coal-related assets in these portfolios. Furthermore, maturities are limited to 2030 for oil-related exposures and to 2035 for gas-related exposures.

Swiss Re further strengthened its fossil fuel guidelines for new private equity funds and co-investments in 2022. The guidelines improve the risk mitigation strategy in these less liquid asset classes, which is particularly important given the longer-term investment horizon.

Swiss Re's current fossil fuel guidelines for infrastructure debt and corporate private placements[1]

	Coal	Oil	Gas
Upstream	● Full exclusion	● Full exclusion	● Full exclusion
Midstream	● Full exclusion	● Pipeline/distribution and storage	● Pipeline/distribution network and storage
Downstream	● Full exclusion	● Petrochemicals & refinery ● Power generation	● Power generation: peaking plant ● Power generation: base load plant
	N/A	**Maximum maturity until 2030**	**Maximum maturity until 2035**

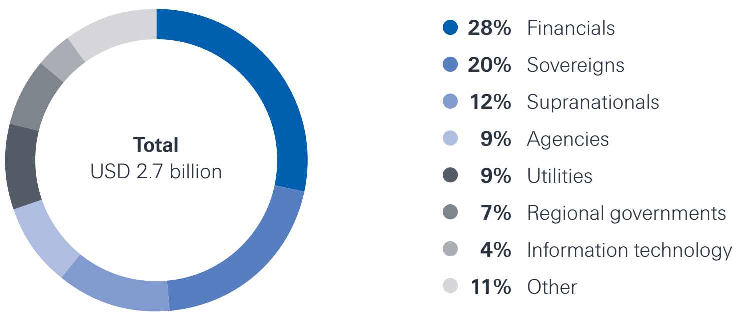
● Only finance brownfield projects
● No financing for either brownfield or greenfield projects

[1] The guideline is compliant with Swiss Re Group's overarching Oil and Gas Policy.

Opportunities
Climate change can also present diversification opportunities for asset owners. Swiss Re sees investment opportunities in activities that address specific sustainability topics such as climate change mitigation and enabling the transition to a net-zero emissions economy.

Green bonds
Green bond proceeds are used exclusively to finance projects that foster a low-emissions economy and/or protect the environment. These projects focus on areas such as renewable energy, circular economy, biodiversity, sustainable water or climate change adaption. Green bonds are part of Swiss Re's target to reach a green, social and sustainability bond portfolio of USD 4.0 billion by the end of 2024 (see Financing transition, page 174). As of 31 December 2022, Swiss Re held USD 2.7 billion of green bonds.

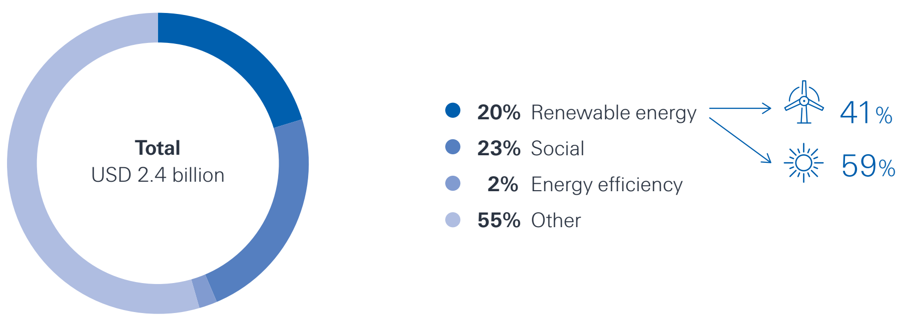
Green bonds per sector



Social and renewable energy infrastructure debt
Swiss Re aspires to finance infrastructure projects that reflect its risk appetite and generate attractive long-term returns. This includes, for example, loans to finance infrastructure projects in renewable energy as well as loans to finance projects such as hospitals, student dorms or affordable housing.

As of 31 December 2022, Swiss Re held USD 0.5 billion in renewable energy debt[1], making up approximately 20% of the infrastructure debt portfolio, of which 59% was invested in solar energy generation and 41% in wind farms. Additionally, Swiss Re invested around USD 52 million in energy efficiency projects and USD 0.6 billion in social infrastructure projects.[1] In relation to that, Swiss Re has achieved its target to deploy additional capital of USD 750 million[2] in renewable energy (including energy efficiency) and social infrastructure debt by the end of 2024 relative to year-end 2019 (see also page 174).

Infrastructure debt portfolio



[1] Based on US GAAP values. Amounts invested reflect the sale of ReAssure in 2020 and debt which has matured or been repaid since the base year 2019.
[2] Based on original face values.

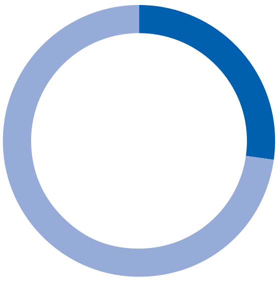
Real estate

New real estate investments are evaluated regarding their current and future status with respect to energy efficiency and the use of sustainable materials. The management of properties already in the portfolio incorporate different ways to improve sustainability characteristics, as economically expedient.

Swiss Re's real estate investment portfolio comprises commercial and residential buildings with a total market value of USD 5.5 billion as of 31 December 2022. These are predominantly located in Switzerland, Germany, the US, the UK, Central and Eastern Europe (CEE) and remaining Western Europe (WE).
For real estate investments in Switzerland, Swiss Re considers climate-related aspects such as the energy source (as a percentage of market value) and MINERGIE® certifications. MINERGIE® is a Swiss sustainability label for new and refurbished buildings. By the end of 2022, the combined market value of Swiss Re's MINERGIE®-certified buildings had reached USD 0.7 billion, or 27% of the Swiss real estate portfolio by market value, which corresponds to an energy consumption floor area of 87 075 m².

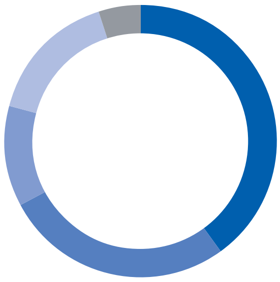
For the company's Swiss real estate portfolio, the preferred energy sources are either renewable energy (27%) or district heating (16%). Gas (40%) is currently the most prominent heating source in this portfolio and is favoured over oil (12%), given its smaller carbon footprint.

Swiss real estate portfolio: MINERGIE®- certified buildings



- **27%** MINERGIE® certified
- **73%** No certification

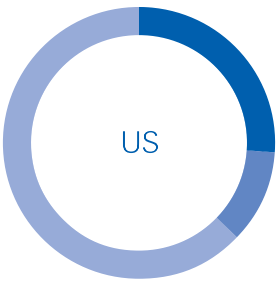
Swiss real estate portfolio: energy sources



- **40%** Gas
- **27%** Renewable energy
- **12%** Oil
- **16%** District heating
- **5%** Other[1]

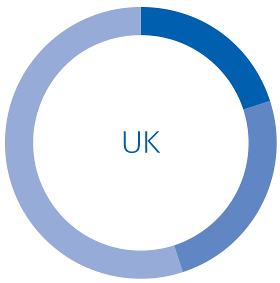
US, CEE and WE, and UK real estate portfolios: certified buildings

The externally managed real estate portfolio is predominantly invested in the US, CEE and the UK, and contains 38% certified buildings by market value. The UK portfolio is the most advanced with 45% BREEAM-certified buildings, followed by 38% certified buildings in CEE and remaining Western Europe (WE) and 37% LEED buildings in the US.



- **26%** LEED "Gold"
- **11%** LEED "Silver"
- **63%** Not certified

- **21%** BREEAM "Very Good"
- **17%** DGNB "Gold"
- **62%** Not certified



- **20%** BREEAM "Excellent"
- **25%** BREEAM "Very Good"
- **55%** Not certified

[1] Includes wood pellets, projects under construction, land and non-heated assets.

Climate risk management

The processes used to identify, assess and manage climate-related risks are integrated into Swiss Re's risk management, underwriting and asset management activities.

Sound risk management, underwriting and asset management lie at the core of Swiss Re's businesses. This enables Swiss Re to use existing processes and instruments to address climate-related risks.

Re/insurance activities and own operations

Physical risks

Property re/insurance

Natural catastrophes are the key risk in Swiss Re's P&C re/insurance risk landscape, besides man-made risks. Climate change-related risks are not considered a risk category of their own, as their impact is reflected in the established risk categories where relevant.

Swiss Re has sophisticated risk models for all relevant natural catastrophe risks such as tropical cyclones, floods, winter storms and earthquakes. The models are based on the latest research and are updated both regularly and ad-hoc, if required. The updates make use of new scientific findings, including from research collaborations with academic institutions, and advances in computing and modelling capabilities.

Swiss Re's proprietary property natural catastrophe risk models are important tools for managing the business: they are used to determine the loss costs, the economic capital required to support the risks on Swiss Re's books as well as to allocate risk-taking capacity to different lines of business.

Secondary perils, which are smaller natural catastrophe scenarios such as flood, smaller storms or wildfire, have generated an increasing amount of property losses in recent years. This trend is expected to continue, fostered by asset growth in exposed areas, urbanisation and a warming climate. Swiss Re executes on a broad agenda regarding secondary perils to address these developments.

Life and health re/insurance

Climate change is one of many risk drivers for Swiss Re's life and health businesses. Mortality assumptions (base rates and trend) underlying the re/insurance business are formally reviewed at different intervals. Base mortality rates are updated at least once per year for major markets and less frequently for smaller markets, mostly based on recent experience data from Swiss Re's portfolio. The trend assumptions for the first 20 years are reviewed annually. For the longer term, they are reviewed once every four years.

The long-term trend assumption is where climate change impacts should be reflected, as the effects of climate change are slow moving and would manifest over a very long time horizon. In addition to external and internal data and analysis, the latest available scientific evidence regarding the impact of climate change on health outcomes is also considered. The results of this process are reviewed and approved by the Group Executive Committee. In its most recent adjustment in 2022, climate change was not considered a material enough factor to be incorporated into the revision.

Swiss Re's own operations

For Swiss Re's own operations, robust and regularly tested business continuity plans covering all locations are in place to mitigate the risk of climate-related disruptions. Strategies include transferring work and/or employees to unaffected Swiss Re locations and providing temporary alternative office space. Furthermore, the Own The Way You Work™ Programme, which was introduced in 2013, offers employees full flexibility in their work arrangements through the use of laptops and seamless access to a Swiss Re Virtual Workplace.

Transition risks
Swiss Re identifies, monitors and assesses transition risks as well as any relevant legal developments.

Swiss Re has risk monitoring in place for all types of transition risks described on pages 157–158. Technological developments are monitored through Swiss Re's respective underwriting units and the pricing of associated covers is reviewed annually.

To address some of the residual transition risks related to carbon-intense industries, Swiss Re is developing a carbon risk steering mechanism. Its key component will be a carbon risk model designed to measure the carbon intensity and associated risks embedded in the re/insurance business. The related policies are described on this page. For further information about the mechanism, see Climate metrics and targets, page 173.

General sustainability risks in Swiss Re's re/insurance business
Swiss Re's ESG Risk Framework is a risk management instrument that enables the company to identify, assess and address environmental, social and human rights risks, as well as governance-related risks. This framework applies to Swiss Re's business activities, including re/insurance transactions and investments, where information granularity is available and a meaningful ESG risk assessment is possible. Two policies in the ESG Risk Framework are particularly relevant in the context of climate change: the Thermal Coal Policy and the Oil and Gas Policy.

Thermal Coal Policy
Since 2018, Swiss Re no longer provides direct insurance or facultative reinsurance[1] to businesses with more than 30% exposure to thermal coal utilities or mining. The policy applies to both old and new thermal coal projects and across all lines of business, and marked the first step towards the development of a carbon steering mechanism. For transactions in low- and middle-income countries that derive more than 70% of electricity from coal, existing power plants (ie operational before 2018) can be covered until 2025, if there is evidence that the insured is implementing an effective emission-reduction strategy.

Swiss Re has fully implemented the Thermal Coal Policy for direct insurance and facultative reinsurance business. In 2022, Swiss Re prepared the implementation of the Thermal Coal Policy extension for reinsurance treaties. The treaty policy extension defines thresholds for coal exposures in treaties across property, engineering, casualty, credit and surety, and marine cargo lines of business.

Thresholds for reinsurance treaty business came into effect at the beginning of 2023 and will then be gradually lowered until the final phase-out targets are reached; for OECD countries by 2030 and for non-OECD countries by 2040.

Oil and Gas Policy
Since July 2021, Swiss Re no longer provides direct insurance or facultative reinsurance[1] covers for those oil and gas companies that are responsible for the world's 5% most carbon-intensive oil and gas production. From July 2023, this threshold will increase to exclude the 10% most carbon-intensive oil and gas production companies.

Since July 2022, Swiss Re no longer provides direct insurance or facultative reinsurance[1] to companies and projects with more than 10% of their production located in the Arctic AMAP region (Norwegian production is exempt).

To learn more about the Swiss Re ESG Risk Framework and the thermal coal and oil and gas policies, please visit the Swiss Re website.

From January 2023, Swiss Re no longer provides direct insurance or facultative reinsurance[1] for new oil or gas field projects.

Exceptions will apply such as for companies that are aligned with net-zero GHG emissions by 2050 as per SBTi validation or a comparable credible third-party assessment. Swiss Re continues to partner with energy clients on the net-zero transition and will align the company's re/insurance support to oil and gas companies according to the following ambitions:
- By 2025, half of Swiss Re's overall direct and facultative premium income are to come from oil and gas companies that are aligned with net zero by 2050 as per SBTi validation or a comparable credible third-party assessment.
- By 2030, Swiss Re's oil and gas re/insurance portfolios will only contain companies that are aligned with net zero by 2050 as per SBTi validation or a comparable credible third-party assessment.

Swiss Re is currently developing an approach for oil and gas in treaty reinsurance and will communicate on progress later in 2023.

[1] Under a facultative reinsurance contract, each risk or policy is negotiated and agreed on individually.

Investments

Climate-related risks can impact the value of Swiss Re's investments and are therefore considered an important factor in its transition towards a low-carbon economy. By monitoring the portfolio GHG consumption and applying scenario analysis, Swiss Re assesses and manages these risks using a structured approach. The table below shows an overview of the identified risks faced by Swiss Re (see Transition and physical risks, page 163) and how they are linked to the NGFS scenarios (see page 161). Swiss Re estimates the financial materiality[1] of transition risks as low to medium for its largest asset classes (ie corporate bonds and sovereign bonds). Physical risks relating to smaller asset class holdings are currently considered as low in terms of materiality.

Risks	Time horizon[2]	Asset classes in scope	NGFS scenarios	Materiality	Tools
Transition risks: Policy and legal Technology Market Reputation	Short and medium term	Corporate bonds	Orderly Disorderly	Medium	• GHG consumption • Policy monitor • Trend identification • Management monitoring • Revenue mix analytics
		Listed equity		Low	
		Sovereign bonds		Low to medium	
Physical risks: Acute Chronic	Long term	Real estate Infrastructure debt Commercial mortgage loans US commercial mortgage-backed securities	Hot house world	Low	• Weather forecasting/ natural catastrophe analytics • Physical exposures analytics

GHG consumption monitoring
Swiss Re aims to identify those industries and groups of companies that are most exposed to transition risks by assessing their GHG consumption. In that regard, Swiss Re systematically monitors the carbon intensity of its corporate bond, listed equity and government bond portfolios, as well as parts of its real estate portfolio.

Additionally, Swiss Re uses temperature alignment methods to track forward-looking indicators for the corporate bond and listed equity portfolios. Temperature scores can provide signalling and reflect how a company's emissions translate into global warming, and thus, where it stands on its decarbonisation journey. At this stage, Swiss Re uses the temperature alignment outputs mainly for internal purposes such as to identify portfolio leaders and laggards (see Climate metrics and targets, page 179).

In order to proactively manage the increasing risk of stranded assets, Swiss Re has taken action by applying fossil fuel-related exclusions and guidelines (see Climate strategy, page 164).

[1] Materiality defined as estimated scenario outcome based on factors published in the 2021 special topic edition of the Global Insurance Market Report (The impact of climate change on the financial stability of the insurance sector), also taking into account the time horizon and ALM considerations (sovereigns being largely invested in an ALM context).
[2] Short term: < 5 years, medium term: 5–10 years, long term: 10 years and more.

Scenario analysis
Swiss Re assesses the transition and physical risks arising from climate change under different climate change scenarios. In 2022, Swiss Re enhanced its analytical capabilities by running scenario pilots on different portfolios for the three specific NGFS climate scenarios Orderly, Disorderly and Hot house world.

To derive the investment portfolio's sensitivity under the three scenarios, focus is placed on corporate bonds and listed equity for the Orderly and Disorderly scenarios, while real assets are in scope for the Hot house world scenario.

Orderly: The orderly transition assumes timely action taken by the real economy to reduce emissions consistent with the Paris Agreement. This transition typically involves the immediate introduction of binding carbon prices and the availability of carbon-removal technologies, leading to net-zero GHG emissions between 2050 and 2070. Swiss Re's emission reduction targets for corporate bonds and listed equity are based on the IPCC 1.5°C pathway scenarios. Reducing the carbon intensity according to the target trajectory puts these asset classes on a decarbonisation pathway consistent with an orderly scenario in the short to medium term. Swiss Re's investment portfolio therefore had a low transition risk at the end of 2022. In this case, the economic impact on the portfolio is estimated to be low in the short term but can be higher for certain (especially energy intense) sectors if carbon costs increase. The listed equity portfolio has been assessed as being more vulnerable than the corporate bond portfolio, due to its larger exposure in energy-intensive sectors, buildings and agriculture. The corporate bonds' vulnerability in an orderly transition is low, with utilities expected to be impacted most by the transition to a low-carbon economy.

Given the economy itself still has to align to a 1.5°C world, the exposure to transition risk may change over time, in particular for carbon-intensive industries. The investee companies need to further reduce their carbon intensities such that the portfolio remains consistent with an orderly 1.5°C trajectory post-2030/2035.

Disorderly: A disorderly (ie late, disruptive) transition is consistent with the same expected temperature increase as in an orderly scenario, but with higher transition risk and cost associated with the transition. In this scenario, the delayed introduction of a carbon price leads to a higher starting point of the same and to a shorter period of time until net zero has to be reached. The transition therefore happens in a more disruptive manner compared to an orderly transition, which also impacts companies beyond the energy-intensive sectors. For the listed equity and corporate bond portfolios, Swiss Re expects a significant economic impact for climate-exposed industries, with higher vulnerability for companies and industries that did not adapt to climate change early on.

Hot house world: A hot house world scenario is expected to materialise through physical risks as economies will be exposed to physical damages on a larger scale due to the absence of sufficient transition actions. The physical risk analysis for Swiss Re's portfolio was done for real assets with clearly identifiable locations within Swiss Re's private debt portfolio (infrastructure debt and commercial mortgage loans), commercial mortgage-backed securities and real estate holdings. Swiss Re used its proprietary modelling tool Swiss Re Climate Risk Scores (see page 159) to calculate stresses and to assess the impact of an increase in severity and frequency of climate-related risks on the portfolios. Furthermore, portfolio changes under the different warming scenarios were modelled and evaluated. The results of both analyses suggest a low exposure of Swiss Re's real asset holdings to natural perils in general and to climate-related perils in particular, which translates into low to medium risks in the next 30–50 years. The low climate impacts are primarily tied to the portfolio's exposure to low risk locations, and cannot be interpreted as physical climate risks being low in general.

Climate metrics and targets

Swiss Re uses several metrics and targets to assess and manage relevant climate-related risks and opportunities and deliver on its commitment to net zero.

Swiss Re uses metrics and targets to measure and monitor climate-related risks and opportunities for its re/insurance business, investments and own operations.

Physical risks

Premium income related to natural catastrophes (USD billion)

	2020	2021	2022
World	**3.7**	**3.9**	**4.8**

For losses exceeding USD 20 million. Net of external expenses such as brokerage and commissions.

Re/insurance activities

Swiss Re uses complementary metrics to identify, assess and manage climate-related risks in its underwriting portfolios. Gross premiums written, annual expected losses, expected profit, reserves and risk model metrics such as tail value at risk (tail VaR) or value at risk (VaR) are used to identify financially material portfolios.

Annual expected losses

Swiss Re uses annual expected losses (AEL) from weather-related perils by region and peak scenario to identify material portfolios that are potentially exposed to changes in the frequency and severity of extreme weather events due to climate change.

These AEL can also be used as an indicator for the average current underwriting exposure to natural catastrophes caused by extreme weather. However, AEL figures do not, by definition, provide an adequate measure for the loss potential of individual years with exceptionally intense natural catastrophes. Adequate metrics for the risk of individual rare natural catastrophes are VaR or tail VaR. For example, the 99.5% VaR measures the loss likely to be exceeded in only one year out of two hundred, see Financial Report page 69, where the results of insurance risk stress tests are provided for the peak insurance risks.

The AEL figures are the result of modelled extreme weather events, the vulnerability of insured assets and operations, their values and the volume and structure of insurance products. There are many drivers for changes of AEL, but the main factor is portfolio changes in the assumed insurance risk on the back of market dynamics. Furthermore, model adjustments for physical climate change risk, changes in the vulnerability of insured assets and operations, and their values or changes in the Group's business strategy are other drivers of change. AEL figures are updated on an annual basis and are used to identify the largest portfolios exposed to weather-related catastrophes that could be impacted by climate change.

The table on the next page shows the AEL by region and peril as well as the highest AEL for Swiss Re's business as of year-end 2022.

Download all the data in the TCFD and the Sustainability Report from the Swiss Re website (Excel).

Gross AEL for weather-related perils by region and for peak exposures, Swiss Re Group (2020–2022, USD million)

	2020	2021	2022
Total	**2 170**	**2 010**	**2 470**
North America	1 005	1 000	1 300
Latin America	220	185	200
EMEA	355	295	420
Asia	415	360	350
Oceania	175	175	190
Tropical cyclone	**1 150**	**1 055**	**1 160**
North America	615	580	700
Latin America	180	160	170
EMEA	0	0	0
Asia	310	280	250
Oceania	45	35	40
Convective storms	**330**	**360**	**530**
North America	240	255	390
Latin America	0	0	0
EMEA	45	40	70
Asia	0	0	0
Oceania	45	65	70
Flood	**340**	**320**	**470**
North America	80	85	140
Latin America	30	25	30
EMEA	110	105	140
Asia	85	75	90
Oceania	35	30	60
Windstorm	**230**	**190**	**240**
North America	50	50	30
Latin America	0	0	0
EMEA	180	140	200
Asia	0	0	10
Oceania	0	0	0
All other perils	**120**	**90**	**80**
North America	20	30	40
Latin America	10	0	0
EMEA	20	10	10
Asia	20	5	0
Oceania	50	45	20
Peak exposures			
Tropical cyclone North Atlantic	770	720	840
US convective storm	240	260	380
European windstorm	180	140	190
Tropical cyclone Japan	210	180	160
European flood	100	100	130

Regional figures may not add up to the world total due to rounding.
AEL from the following lines of business are covered: property, engineering, marine, liability, aviation, motor and multilines. The first two account for 95% of total AEL.

Transition risk
Since 2018, Swiss Re has been using weighted average carbon intensities as proposed by the CRO Forum to identify the most carbon-intense direct insurance portfolios. Gross premiums written is used as the weight for calculating revenue-based greenhouse gas (GHG) intensities.

Company data for Scope 1 and 2 emissions, as well as estimated sectoral data are used as a basis. There are, however, still significant limitations to data availability, and carbon footprint estimates for re/insurance underwriting are thus marked by considerable uncertainty.

To support its ambition of achieving net zero in underwriting, Swiss Re is developing a comprehensive carbon steering mechanism. This includes the quantification of Swiss Re's absolute GHG emissions and associated risks related to its re/insurance business. In 2022, Swiss Re assumed a leading role in various industry initiatives establishing standards for measuring GHG emissions associated with insurance portfolios (so-called insurance-associated emissions (IAE)), as well as on how to set related targets (see box on the right).

In light of the new standards, Swiss Re is updating its carbon accounting approach with new and enhanced data sources and estimates.[1] Swiss Re plans to publish the IAE of its direct and facultative re/insurance portfolios as well as a related interim target by July 2023 on its website. Carbon intensities will continue to be used for internal risk analyses.

Swiss Re taking a leading role in the NZIA and PCAF working groups
The UN-convened Net-Zero Insurance Alliance (NZIA) is a group of 30 leading re/insurers who have individually committed to transitioning their underwriting portfolios to net-zero GHG emissions by 2050.

Swiss Re was one of the eight founding members of NZIA in 2021. In 2022, it assumed an important role, serving as the Chair of the NZIA Metrics and Targets Workstream. The NZIA collaborated with the Partnership for Carbon Accounting Financials (PCAF) to develop the Accounting and Reporting Standard for Insurance-Associated Emissions. Swiss Re chaired the PCAF Working Group and also led the work on the NZIA Target-Setting Protocol.

The PCAF Working Group started its work in October 2021. Following a targeted consultation with key stakeholders and a public consultation in July 2022, the first version of the Global GHG Accounting and Reporting Standard for Insurance-Associated Emissions was successfully launched in November 2022. This is the first methodology that provides guidance on measuring and disclosing GHG emissions associated with commercial lines and personal motor lines direct insurance and facultative reinsurance portfolios.

The first version of the Standard can be applied to more than 70% of the global property and casualty primary insurance market. It doesn't cover treaty reinsurance, the majority of Swiss Re's business, but, the working group aims to extend its scope further. The global, standardised methodology is intended to provide re/insurers with deeper insight into the risk profile of their respective underwriting portfolios, stimulate innovative approaches to decarbonisation and create comparability for stakeholders.

In parallel, the NZIA has started working on a Target-Setting Protocol. This protocol sets out the NZIA's recommended approach to target setting and reporting. The goal was to support re/insurers in beginning to set science-based, interim decarbonisation targets for their respective insurance and reinsurance underwriting portfolios in line with a net-zero transition pathway that would limit global warming this century to 1.5° C. In November 2022, a public consultation on the draft protocol provided an opportunity for the wider insurance industry (eg other re/insurers, brokers, insurance associations and initiatives) and key stakeholders (eg insurance regulators and supervisors, rating agencies, policymakers, civil society organisations/NGOs) to provide feedback.

Version 1.0 of the Target-Setting Protocol was published in January 2023. It defines five different target types within the three categories "emission reductions", "engagement" and "other" (other currently only contains the target type re/insuring the transition). NZIA members have committed to publishing at least one individual and company-specific target by July 2023. A year later, they must publish at least three targets that cover all three categories.

Work in the NZIA Metrics and Targets Workstream will remain crucial in order to expand the scope of guidance on measuring and disclosing Insurance-Associated Emissions, and setting science-based interim and long-term targets.

[1] Due to the high uncertainty and in light of the recently established PCAF standard, Swiss Re has not updated the GHG emission intensity figures for 2022. For 2021, the value was 120 tonnes CO_2e/USD million revenue. This is below the carbon intensity of the corporate bond benchmark used for investments and also below the carbon intensity of Swiss Re's corporate bond portfolio (see page 176).

Investments

As part of its climate action approach and transition to a net-zero GHG emissions investment portfolio by 2050, Swiss Re sets intermediate targets every five years and regularly reports on them. Targets were set in 2020 for 2025 in accordance with the AOA Target Setting Protocol (TSP) version 1. The targets aspire to align Swiss Re's investment portfolio with a 1.5°C world, and include financing transition, engagement, sub-portfolio and sector targets.

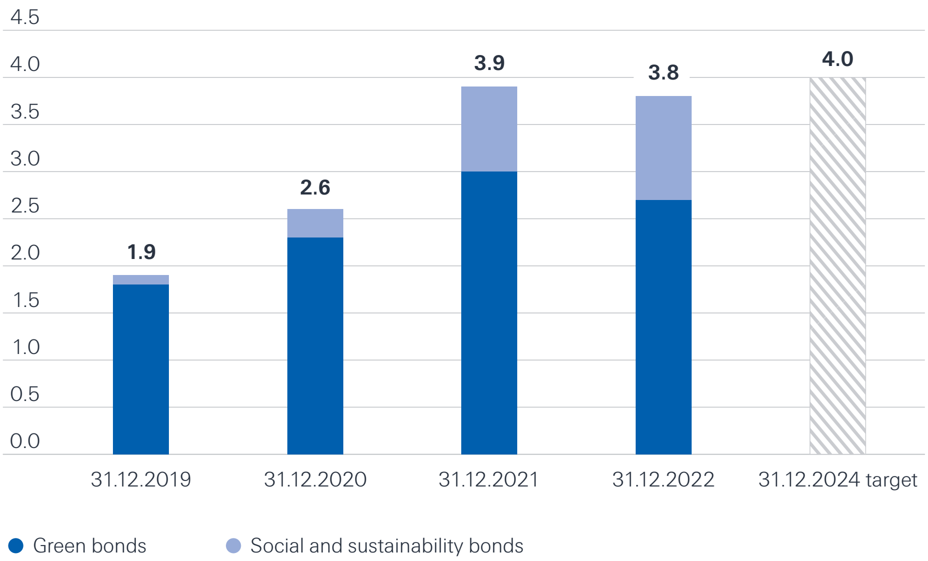
Climate targets

Financing transition

Green bonds contribute to the transition to a low-carbon economy. By the end of 2022, Swiss Re held USD 2.7 billion in green bonds. As part of Swiss Re's transition strategy, its mandate also considers social and sustainability bonds, which enable a company to support underserved groups or populations, thus having a positive impact on society. Swiss Re's ambition is to achieve an investment portfolio of USD 4 billion of green, social and sustainability bonds by the end of 2024. Swiss Re held USD 3.8 billion in green, social and sustainability bonds per year-end 2022. The decrease in the amount of green bonds compared with year-end 2021 is due to higher yields, which outweighed purchases (after offsetting matured bonds). Bonds are only counted for target achievement if they meet all four components of the International Capital Market Association (ICMA) Green or Social Bond Principles, or the ICMA Sustainability Bond Guidelines. In 2022, less than 7% did not pass the review and were therefore not included in the reporting of Swiss Re's green, social and sustainability bond holdings.

In alignment with the aspiration to finance the transition, Swiss Re has also set a target to deploy additional capital of USD 750 million[1] in social and renewable energy infrastructure debt, including energy efficiency, by the end of 2024 relative to year-end 2019. As of 31 December 2022, it invested a total of USD 751 million compared with the base year, thus reaching the target ahead of time.

Green, social and sustainability bond holdings since target inception (USD billion)



In 2022, Swiss Re evaluated the reporting requirements for its carbon-intensive energy infrastructure debt portfolio as defined in the AOA TSP version 2. As the direct holdings are close to nil, the position is considered as not material from a reporting perspective.

Engagement

Swiss Re believes that engagement with the real economy is an integral component for supporting the limitation of global warming to 1.5°C. In 2020, it therefore established an Engagement Framework supporting the aspired emission reduction described in the sub-portfolio paragraph below and the real-world transition to a low-carbon economy. For additional information on Swiss Re's stewardship activities, see the Sustainability Report 2022, pages 39–40.

Sub-portfolio

Swiss Re is committed to transitioning its investment portfolio to net-zero GHG emissions by 2050. Informed by IPCC's[2] pathways consistent with global warming of 1.5°C, Swiss Re introduced a target for the combined corporate bond and listed equity portfolio to reduce its carbon intensity by 35% to be achieved by the end of 2024 relative to 2018. Furthermore, Swiss Re set a target to reduce the carbon intensity for its Swiss and German real estate investment portfolio by 5% with 2018 as the base year, to be achieved by year-end 2024. For information on the progress made against these targets, see Climate metrics, pages 175–178.

Sector

Coal assets are particularly carbon intensive and susceptible to becoming stranded given the long life of these assets, as well as the evolving regulations on carbon emissions. Swiss Re aims to fully exit coal-related assets for the listed equity and corporate bond portfolios via normal portfolio reallocations by 2030. Further, Swiss Re does not invest in fossil fuel-related companies that are above certain thresholds, as described in the Climate strategy section, page 164.

[1] Based on original face values.
[2] IPCC (2018). Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. https://www.ipcc.ch/sr15/chapter/spm/.

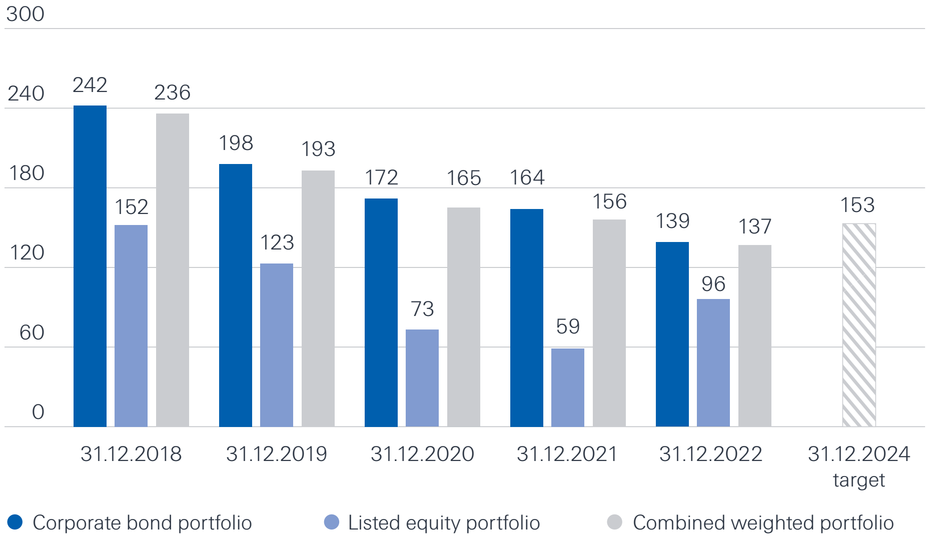
Climate metrics

Carbon footprint of the corporate bond and listed equity portfolios[1]

Swiss Re measures the carbon footprint of its corporate bond and listed equity (incl ETFs, excl strategic holdings) portfolios by using the weighted average carbon intensity (WACI, revenue-based taking Scope 1 and 2 CO_2e emissions[2] into account) and absolute financed CO_2e emissions. Carbon intensity is particularly useful to quantify the carbon consumption for multi-asset portfolios and a measure of choice for comparisons over time, between portfolios and against benchmarks. Swiss Re also sets its emissions reduction targets based on this metric.

The **carbon intensity of Swiss Re's combined corporate bond and listed equity portfolio decreased by 42% relative to base year 2018**. These assets cover 33% of the total investment portfolio. The increase in the listed equity carbon footprint versus 2021 depicted in the chart on the right was mainly driven by investment decisions: in 2022, the listed equity exposure was reduced in light of the cautious investment outlook, which led to a change in the equity portfolio's composition.

Carbon intensity of the corporate bond and listed equity portfolios (tonnes CO_2e/USD million revenue)



At the end of 2022, the **absolute financed emissions (Scope 1 and 2) amounted to 1.1 million tonnes CO_2e (corporate bond and listed equity portfolio, excl ETFs)**. Moreover, Swiss Re conducted an analysis on Scope 3 emissions for listed equity and corporate bonds with the aim to improve understanding of data availability and quality.

The analysis revealed that at this stage and in contrast to Scope 1 and 2 emissions data, Scope 3 figures pose challenges regarding quality, consistency and stability over time. While full disclosure remains a target, further work on the availability and quality of underlying data must advance to derive meaningful Scope 3 outputs.

[1] All carbon intensities from MSCI ESG as of February 2023, based on holdings as of December 2022. Carbon intensity: weighted average carbon intensity = (company CO_2e emissions/company revenue) * (investment/portfolio).
[2] CO_2 equivalents (CO_2e), which include greenhouse gases as per the definition of the GHG Protocol (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3) as far as data is available.

Corporate bonds carbon intensity reduction since target base year (end of 2018)

The corporate bond emission reduction of 103 tonnes CO_2e/USD million revenue (or 43%) since the end of 2018 was driven by the change in reported intensities (–21 tonnes CO_2e/USD million revenue) and portfolio rebalancing activities (–82 tonnes CO_2e/USD million revenue). A lower carbon intensity was achieved by reducing the allocation to utilities, but also by overweighting companies with more favourable intensities within the same industry. Further, the change in reported intensities shows that there was a broader market trend across companies to reduce their carbon emission intensity. While Swiss Re's preference is to achieve the target mainly through security selection, further rebalancing is required to achieve the envisaged carbon intensity profile by the end of 2024.

Drivers of carbon intensity reduction from 2018 to 2022: corporate bond portfolio[1]

Investment portfolio	2018		2022
Carbon intensity (tonnes CO_2e/USD million revenue)	242	–103	139
Change in reported intensities		–21	
Rebalancing		–82	
Total		**–103**	

Sector perspective	Sector allocation –59	Security selection –44
Utilities	Decrease	Decrease
Energy	Unchanged	Unchanged
Financials	Decrease	Unchanged
Transportation	Unchanged	Decrease

● Decrease ● Unchanged ● Increase

Corporate bond weighted average carbon intensity relative to benchmark

The lower corporate bond portfolio carbon intensity in 2022 was driven by selective reductions in high carbon-intensive names. It is well below the corresponding benchmark in terms of carbon intensity, which is largely driven by its underweight in carbon-intensive holdings.

Carbon intensity as per year-end 2022: corporate bond portfolio vs benchmark[1]

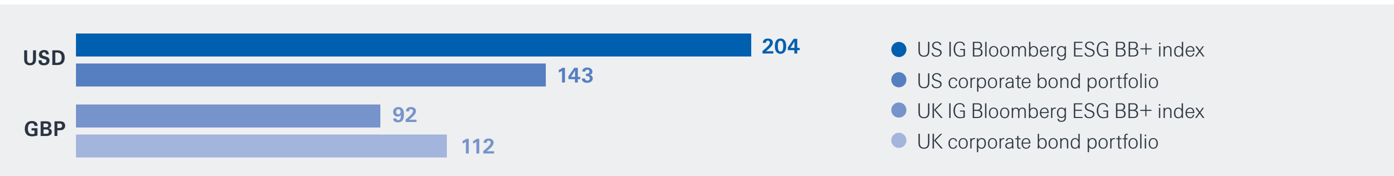
December 2022	Investment portfolio		**Benchmark** Corporates IG Bloomberg MSCI ESG BB+[2]
Carbon intensity (tonnes CO_2e/USD million revenue)	139	–55	194

Sector perspective	Sector allocation –22	Security selection –33
Utilities	Underweight	Underweight
Energy	In line with benchmark	In line with benchmark
Financials	In line with benchmark	In line with benchmark
Transportation	In line with benchmark	In line with benchmark

● Underweight ● In line with benchmark ● Overweight

Comparing the current investment portfolios against the US and UK market benchmarks, a lower carbon intensity versus the USD benchmark, but a higher one versus the GBP benchmark is apparent.

Corporate bond weighted average carbon intensity per year-end 2022 (tonnes CO_2e/USD million revenue)[1]



[1] All carbon intensities from MSCI ESG as of February 2023, based on holdings as of December 2022. Carbon intensity: weighted average carbon intensity = (company CO_2e emissions/company revenue) * (investment/portfolio).
[2] This benchmark is a composite of main developed markets corporate credit indices.

Listed equity carbon intensity reduction since base year (end of 2018)

The chart below shows an intensity reduction of 58 tonnes CO_2e/USD million revenue (or 52%) relative to 2018. The scope differs from the one applied for Swiss Re's emissions reduction target that includes equity ETFs.

Since the listed equity portfolio is actively managed and more concentrated than the credit portfolio, the majority of the decline was driven by portfolio rebalancing (–56 tonnes CO_2e/USD million revenue) and only a minor reduction is due to changes in reported intensities (–2 tonnes CO_2e/USD million revenue). Security selection was hence the main driver of change, while reduction of exposures in some key sectors had a relatively modest impact.

Drivers of carbon intensity reduction from 2018 to 2022: listed equity portfolio[1]

Investment portfolio	2018		2022
Carbon intensity (tonnes CO_2e/USD million revenue)	111	**–58**	53
Change in reported intensities		–2	
Rebalancing		–56	
Total		**–58**	

Sector perspective	**Sector allocation** –19	**Security selection** –39
Chemicals		
Energy		
Transportation		
IT		

Decrease · Unchanged · Increase

Listed equity carbon intensity relative to benchmark

The comparison below shows that the lower carbon intensity of the actively managed listed equity portfolio versus the benchmark can be mostly attributed to the underweight in carbon-intensive industries, while the selection of companies within the index had a minor effect.

Carbon intensity as per year-end 2022: listed equity portfolio vs benchmark[1]

December 2022	Investment portfolio		**Benchmark** MSCI ACWI ESG Leaders
Carbon intensity (tonnes CO_2e/USD million revenue)	53	**–44**	97

Sector perspective	**Sector allocation** –35	**Security selection** –9
Chemicals		
Energy		
Transportation		
IT		

Underweight · In line with benchmark · Overweight

The carbon intensity profile of Swiss Re's listed equity portfolio including ETFs has a slightly superior carbon intensity profile compared to the market benchmark (ESG Leaders version of the MSCI ACWI Index).

Listed equity weighted average carbon intensity per year-end 2022 (tonnes CO_2e/USD million revenue)[2]

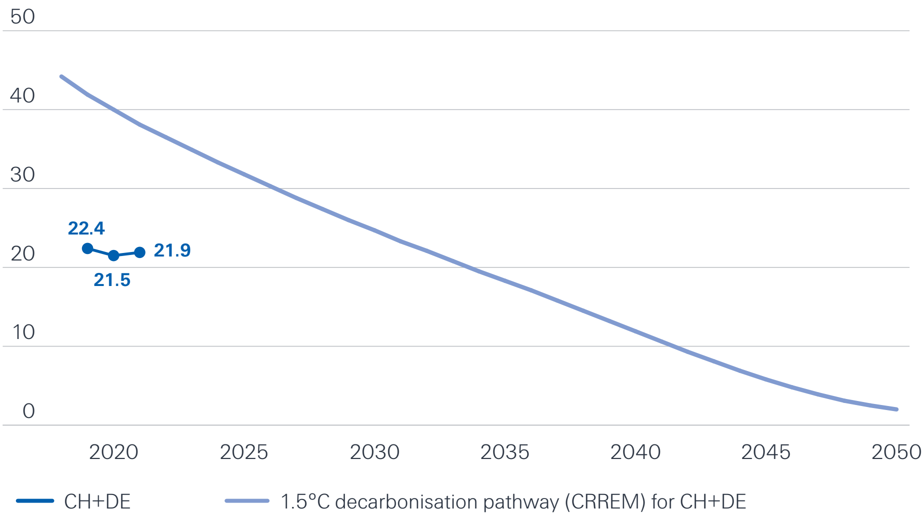
[1] All carbon intensities from MSCI ESG as of February 2023, based on holdings as of December 2022. Carbon intensity: weighted average carbon intensity = (company CO_2e emissions/company revenue) * (investment/portfolio). Excluding ETFs.
[2] All carbon intensities from MSCI ESG as of February 2023, based on holdings as of December 2022. Carbon intensity: weighted average carbon intensity = (company CO_2e emissions/company revenue) * (investment/portfolio). Including ETFs.

Carbon footprint of the Swiss and German real estate portfolio

The analysis focuses on the combined Swiss and German portfolio, which made up 66% of market value of the total direct real estate holdings per year-end 2022. The weighted carbon intensity profile of this portfolio (WACI, m²-based taking annual Scope 1, 2 and 3 operational emissions into account) is benchmarked against decarbonisation pathways reflecting 1.5°C global warming provided by the Carbon Risk Real Estate Monitor (CRREM) tool. The CRREM pathways are in line with the Paris Agreement and are based on the breakdown of the global GHG budget into individual country and property type-specific carbon budgets.

The **absolute financed emissions of the portfolio amounted to around 15 000 tonnes CO2e in 2021**. The graph below shows that its carbon intensity decreased by 2% between 2019 and the end of 2021, and is well below the decarbonisation pathway of 1.5°C. The decrease can be attributed to a less carbon-intensive energy source mix in the portfolio, which more than offsets a marginal increase (1%) in energy intensity over the same period. However, further improvements in energy efficiency will be needed post-2030.

Carbon intensity of the Swiss and German real estate portfolio (kg CO_2e/m^2/year)

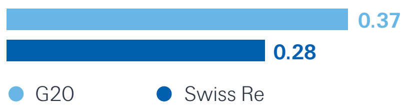


Note: Compared with last year's report, the scope of the data displayed in the chart has increased to cover Switzerland and Germany (from covering Switzerland only), and hence reflects the combined emissions.
Source: Swiss Re, CRREM

Government bond carbon intensity as per year-end 2022

Asset-liability management is at the core of the investment approach taken for the composition of Swiss Re's government bond portfolio. In 2022, the portfolio was less carbon intensive compared to the G20 due to its higher allocation to low-carbon intensity countries.

Carbon intensity of government bond portfolio versus G20 per year-end 2022[1]



(Scope 1 kg CO_2e /USD GDP PPP-adjusted)

[1] Based on holdings as of December 2022. CO_2 emissions (actual), GHG emissions (estimated) and GDP (actual) data as of 2021, with GDP PPP-adjusted in 2017 USD terms (sources: MSCI ESG, WDI, CIA, EDGAR). Carbon intensity: weighted average carbon intensity = (GHG emissions /GDP PPP-adjusted) * (investment/ portfolio).

Temperature alignment assessment for the listed equity and corporate bond portfolios

Since 2021, Swiss Re has applied a temperature alignment view on the listed equity and corporate bond portfolios. The methodology is based on a company's aspired intensity reduction and the related emission projections. This metric has the benefit of providing an outlook element and thus a certain degree of signalling. The results and analytics of temperature alignment scores allow for a granular assessment of the carbon risks embedded in Swiss Re's holdings and help gain an in-depth understanding of the portfolio positioning. Nevertheless, comparability across methodologies and providers is limited in the absence of recognised global standards and given these methods are still evolving. Consequently, temperature alignment outputs from different providers are not comparable. Furthermore, the timeliness and quality of data remains a challenge: the latest available datapoint for the forward-looking projections relies on year-end 2021 company filings.

The two metrics carbon intensity and temperature score can lead to different outcomes as the carbon intensity describes where Swiss Re's portfolio is based on past emissions, while the temperature score shows where it is heading in the future. Further, they also differ in terms of scope, coverage and timing.

The temperature alignment score for Swiss Re´s listed equity portfolio is at 3.0°C, in line with the corresponding benchmark. The corporate bond portfolio's temperature score is at 2.5°C, which is higher than the benchmark score of 2.2°C. The higher score in the portfolio can be explained by security selection effects within some sectors. These scores highlight that more actions are required to align Swiss Re's investment portfolio and the broader economy with a 1.5°C pathway.

Temperature alignment comparison of portfolio vs benchmark[1]

	Listed equity portfolio	
December 2022	**Investment portfolio**	**Benchmark** MSCI ACWI ESG Leaders
Temperature score	**3.0°C**	**3.0°C**
High sector contributors		
Energy		
Chemicals		
Metals		
Buildings		

	Corporate bond portfolio	
	Investment portfolio	**Benchmark** Corporates IG Bloomberg MSCI ESG BB+
Temperature score	**2.5°C**	**2.2°C**
High sector contributors		
Energy		
Utilities		
Chemicals		
Transportation		

● Below 1.5°C ● 1.5–2°C ● 2–3°C ● >3°C

[1] Temperature-related data from Trucost as of February 2023, based on holdings as of December 2022.

Greenhouse gas emissions from Swiss Re's operations (Scope 1, 2 and 3)

In 2019, Swiss Re committed to reaching net-zero GHG emissions across its operations by 2030.[1]

CO2NetZero Programme
Swiss Re has been placing a strong focus on reducing its own greenhouse gas (GHG) emissions and energy consumption for around 20 years. In 2019, Swiss Re committed to reaching net-zero GHG emissions across its operations by 2030. Following the standardisation work undertaken by SBTi in 2021 and 2022, Swiss Re has decided to embed these definitions and high-level principles in its CO2NetZero Programme for operational emissions, while voluntarily continuing to go beyond SBTi's minimum requirements and bearing in mind that net zero is still a concept under development for financial institutions.

Swiss Re's transition path to net zero consists of three elements:
- Swiss Re focuses on reducing GHG emissions within its operational value chain as much and as quickly as possible, setting both near-term and long-term science-based reduction targets that are aligned with a 1.5°C-compatible pathway. At the end of 2022, near-term targets for operational emissions were submitted to the SBTi for validation (see Sustainability Report 2022, page 17 for details on the targets). Long-term targets will be developed after the release of the applicable standard for financial institutions (see Sustainability Report 2022, Net zero for financial institutions, page 52 for further background).
- Swiss Re is keen to support the development of the carbon removal market through early engagement. The Group has set a voluntary target to purchase 100% carbon removal certificates as early as 2030, fully covering the remaining operational emissions that are in scope for compensation in that year.[2]
- Swiss Re will continue to compensate its remaining emissions with carbon avoidance and removal certificates[3], linerarily increasing the share of carbon removal certificates purchased annually from 0% in 2020 to 100% in 2030. Both certificate types will continue to meet Swiss Re's quality criteria in terms of integrity, durability, scalability and social co-benefits. This voluntary course of action is encouraged by SBTi and defined as "beyond value chain mitigation".

These three elements are encapsulated in the motto "Do our best, remove the rest". See Sustainability Report 2022, pages 54–57 for more information on the principal measures Swiss Re has recently taken under this motto.

The Carbon Steering Levy
In early 2021, Swiss Re became the first multinational company to introduce an ambitious triple-digit real internal carbon price on both direct and indirect operational GHG emissions. It covers all Scope 1, all Scope 2 (market-based) and a significant part of upstream Scope 3 emissions (ie business travel, fuel and energy-related activities, paper, water and waste) across all of the Group's Business Units, functions and locations.

In 2022, the internal price per tonne of CO_2e (Carbon Steering Levy) was set at USD 112 – up from USD 100 in 2021. This increase is part of the plan to gradually raise the levy to USD 200 per tonne of CO_2e by 2030, which reflects the expected market price for high-quality carbon removal certificates at that point in time.

[1] The commitment was based on the following definition of net zero: for every tonne of GHG that cannot be avoided, an equivalent amount of CO_2 needs to be removed from the atmosphere and stored permanently.
[2] Swiss Re's operational GHG emissions in the current scope for compensation are Scope 1, Scope 2 and a significant part of upstream Scope 3 (ie business travel, fuel- and energy-related activities, paper, water and waste).
[3] Carbon removal certificates: emitters pay third parties for removing emissions from the atmosphere and store them durably (also known as "carbon removals"). Carbon avoidance certificates: emitters pay third parties to avoid or reduce someone else's emissions (commonly known as "carbon offsets").

The levy is the overarching element of Swiss Re's CO2NetZero Programme, as it helps the company to simultaneously meet both its "do our best" and "remove the rest" objectives:
- Placing an increasing price on carbon is expected to incentivise concrete actions on emissions reduction – hence the name Carbon Steering Levy.
- The Carbon Steering Levy will generate the funds required to cover the rising costs of the carbon certificates mix used for emissions compensation, as the share of carbon removals is planned to linearly increase to 100% in 2030.

Since the carbon removal industry is still in its infancy, carbon removal certificates are expensive at present. Prices will decrease over time as technologies and markets mature, but for high-quality removals they will likely remain above the level of Swiss Re's Carbon Steering Levy until the end of the decade. Meanwhile, conventional carbon offsets – including the high-quality ones Swiss Re has bought in the past and will continue to buy – are expected to remain available at prices well below its internal Carbon Steering Levy. Mixing higher-cost removals with cheaper offsets will make it possible to balance the Group's average carbon certificate price so it never exceeds the level of the Carbon Steering Levy in any given year.

Finally, with its ten-year time horizon the Carbon Steering Levy helps eliminate planning uncertainty. In particular, it allows Swiss Re to source certificates through long-term purchase agreements, thus sending a strong signal to the market.

Greenhouse gas emissions data disclosure

In 2022, Swiss Re's operational GHG emissions totalled 29 069 tonnes of CO_2e[1] – roughly a three-fold increase from the previous year, which was still strongly impacted by the COVID-19 pandemic. Compared with 2018 operational emissions have decreased by 69% in absolute terms.

Swiss Re has disclosed its operational environmental performance indicators, including GHG emissions and their relative performance over time since 2003, expanding the reporting scope with effect from 2013.

Its operational GHG inventory is based on the guidelines of the Greenhouse Gas Protocol – Corporate Standard, the most widely used international standard for the accounting and reporting of GHG emissions.

The full disclosure of the Group's operational GHG emissions and the underlying environmental indicators for 2022 can be found in the Appendix of the Sustainability Report 2022, pages 72–75.

While Swiss Re strives to continuously improve its calculation methodology for the GHG emissions within the current reporting boundary, it also acknowledges the existence of a large portion of operational Scope 3 categories with considerable measurement uncertainty. These emissions are reported only as initial estimates at present. Most of them stem from the activities in the Group's supply chain and are usually referred to as "embodied emissions" in the buildings, products and services needed to run the core business operations. For an overview of Scope 3 operational GHG emissions, including estimates, please see page 183.

These Scope 3 emissions are difficult to quantify accurately because their sources are beyond Swiss Re's direct operational control; the corresponding accounting methodologies and data collection systems are not yet mature or standardised.
Swiss Re understands the need to engage with its vendors on the topic of climate change mitigation. The future objectives of this collaboration are: identifying and measuring material emissions; setting science-based emission reduction targets; and decarbonising the Group's supply chain in line with the ambition of achieving net zero globally by 2050.

[1] Emissions from Scope 2 electricity are market-based, see also the data table on the following page.

Data tables

All figures are reported on a hydrological year basis (ie 12 months from 1 October to 30 September), except for "Business travel" figures, which are reported on a calendar year basis (ie 12 months from 1 January to 31 December). 2018 is the base year used to measure progress against targets.

GHG emissions (absolute)	Unit	2018 (base)	2020	2021	2022
Scope 1	**Tonnes CO_2e**	**4186**	**2901**	**2665**	**2902**
Fossil fuels used for energy generation (heating and electricity)	Tonnes CO_2e	2849	2111	2104	2058
Technical gases	Tonnes CO_2e	922	537	494	679
Operational road travel[1]	Tonnes CO_2e	415	253	67	165
Scope 2 (electricity: market-based)	**Tonnes CO_2e**	**1359**	**81**	**61**	**64**
Purchased electricity (location-based)[2]	Tonnes CO_2e	11687	8494	7188	7868
Purchased electricity (market-based)	Tonnes CO_2e	1241	0	0	0
Purchased district heating	Tonnes CO_2e	118	81	61	64
Scope 3[3]	**Tonnes CO_2e**	**87082**	**18211**	**7890**	**26103**
Purchased goods and services (Scope 3 cat. 1, currently including only paper and water)*	Tonnes CO_2e	351	189	125	80
Fuel- and energy-related activities (Scope 3 cat. 3)[4]	Tonnes CO_2e	2042	1061	865	954
Waste generated in operations (Scope 3 cat. 5)	Tonnes CO_2e	311	166	133	289
Business travel (Scope 3 cat. 6)[5]	Tonnes CO_2e	69653	10028	4594	19599
Commuting (Scope 3 cat. 7)[6]	Tonnes CO_2e	14726	6767	2173	5180
Operational emissions[7]	**Tonnes CO_2e**	**92627**	**21192**	**10616**	**29069**
Operational emissions in scope for compensation[8]	**Tonnes CO_2e**	**77901**	**14426**	**8442**	**23889**

Carbon certificates	Unit	2018 (base)	2020	2021	2022
Total amount of retired carbon certificates	**Tonnes CO_2e**	**69343**	**27249**	**9409**	**25034**
Certificates retired for compensation of operational emissions[9]	Tonnes CO_2e	69343	27249	8387	23889
Certificates retired as part of the NetZeroYou2 Programme[10]	Tonnes CO_2e	n/a	n/a	1022	1145
Share of carbon avoidance certificates ("offsets")	%	100	100	65	76
Share of carbon removal certificates ("removals")	%	0	0	35	24

GHG emissions (intensity)	Unit	2018 (base)	2020	2021	2022
Scope 1	**kg CO_2e/FTE**	**301**	**203**	**180**	**189**
Scope 2 (market-based)	**kg CO_2e/FTE**	**98**	**6**	**4**	**4**
Scope 2 (location-based)[11]	**kg CO_2e/FTE**	**850**	**601**	**489**	**516**
Scope 3[2]	**kg CO_2e/FTE**	**6271**	**1275**	**532**	**1700**
Operational emissions[7]	**kg CO_2e/FTE**	**6670**	**1484**	**716**	**1893**

1 "Operational road travel" figures include emissions from Swiss Re's own or third-party operated road fleet (eg shuttle buses, pool cars and logistic vehicles).
2 Figure for the year 2021 has been restated due to the update of emission factors for conventional electricity.
3 Operational Scope 3 emissions included in the current reporting boundary. Swiss Re acknowledges the existence of a large portion of operational Scope 3 emissions that is currently only estimated and therefore not reported in this table. For more information, see table "GHG emissions (absolute) – Scope 3" on page 183.
4 "Fuel- and energy-related activities" figures include upstream emissions from purchased fuels and electricity and from energy transmission and distribution losses, not included in Scope 1 or Scope 2.
5 Figures for the years from 2018 to 2021 have been restated due to the inclusion of upstream components (fuel well-to-tank and energy transmission and distribution losses) in the emission factors for cars and trains used in business ground travel.
6 Figures for the years from 2018 to 2021 have been restated due to the inclusion of upstream components (fuel well-to-tank and energy transmission and distribution losses) in the emission factors for cars, motorbikes, trains and electric cars used in employee commuting. "Commuting" figures are obtained by means of biannual surveys and have considerable measurement uncertainty. The survey was last performed in 2019 and results have been adjusted in 2020, 2021 and 2022 (normalised by employees entering company premises) to account for COVID-19 impact.
7 Total operational emissions are the sum of Scope 1, Scope 2 (market-based) and Scope 3.
8 Current emissions in scope for compensation include Scope 1, Scope 2 and part of upstream Scope 3 (business travel, fuel- and energy-related activities, paper, water and waste). Commuting is not included.
9 Carbon certificates retired in 2018, 2020 and 2021 do not match the corresponding "Operational emissions in scope for compensation" due to annual restatements of GHG emissions figures.
10 The NetZeroYou2 Programme started in 2021, therefore no certificates were retired in the previous years.
11 Figures for the years from 2018 to 2021 have been restated due to the inclusion of upstream components (fuel well-to-tank and energy transmission and distribution losses) in the emission factors for operational road travel.

GHG emissions (absolute) – Scope 3	Status (as of 2022)	Annual emissions in metric tonnes CO_2e: value (2022) or estimated range	Emissions calculation methodology
Category (as per GHG Protocol)[1]			
1 Purchased goods and services	Estimated[2]	100 000–200 000	Estimate based on "ESCHER" assessment (PwC) in 2021. The Global Trade Analysis Project (GTAP) database is used to build an extended inter-regional input-output framework, through which the model calculates emission factors per monetary unit and estimates the emissions based on the total procurement spend for goods and services purchased for business operations.
2 Capital goods	Estimated	1 000–3 000	Estimate for buildings based on an average factor for the upfront embodied carbon (source: ARUP, WBCSD, Net-zero buildings: where do we stand?, 2021). This factor is multiplied by the floor area of owned buildings and amortised over a 60-year period (average life span of commercial buildings). This estimate currently does not include other minor capital goods. The methodology applied differs from the one that is currently recommended by the GHG Protocol guidance for Scope 3 category 2, which does not amortise or depreciate the emissions from the production of purchased capital goods, instead accounting for their total cradle-to-gate emissions in the year of purchase.
3 Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	Reported	954	Emissions from upstream activities related to fuels (eg well-to-tank emissions) and energy (eg emissions associated with energy transmission and distribution losses). Scope 3 upstream components of the emission factors are applied to the corresponding activity data.
4 Upstream transportation and distribution	Estimated	included in category 1	Emissions are included in the estimate for purchased goods and services (Scope 3 category 1).
5 Waste generated in operations	Reported	289	Emissions are calculated by applying emission factors to waste amounts based on their final destination and on the location (country) in which they are produced.
6 Business travel	Reported	19 599	Emissions are calculated by applying emission factors (per unit of distance) to activity data (distance travelled for business trips by mode of transport).
7 Employee commuting	Reported	5 180	Emissions are calculated by applying emission factors (per unit of distance) to activity data (distance travelled for commute to work by mode of transport).
7 Employee homeworking	Estimated	8 000–10 000	Estimate based on UK BEIS average emission factors (kg CO_2e per homeworking FTE working hour) applied to activity data derived from building occupancy measurements. The methodology used by UK BEIS is taken from the document "Homeworking Emission Whitepaper" (EcoAct, 2020).
8 Upstream leased assets	Not relevant	–	Emissions from leased office spaces (where Swiss Re is the lessee) are included in Scope 1 and Scope 2.
13 Downstream leased assets	Not relevant	–	Emissions from leased office spaces (where Swiss Re is the lessor) are not relevant in 2022.
Total estimated Scope 3	**Estimated**	**109 000–213 000**	**Sum of estimated Scope 3 categories**

[1] Only applicable categories for operations are listed in this table.
[2] Reported for paper and water (see "GHG emission (absolute)" table on page 182).

Independent limited assurance report on Selected Sustainability Information in Swiss Re Management Ltd's Sustainability Report 2022 and TCFD reporting 2022

To the Board of Directors of Swiss Re Management Ltd, Zurich

We have undertaken a limited assurance engagement on Swiss Re Management Ltd's (hereinafter "Swiss Re") Selected Sustainability Information in the following sections of the Sustainability Report for the year ended December 31, 2022:

- Swiss Re's approach to sustainability (materiality assessment);
- Sustainability risk management (quantitative data only);
- Sustainability in underwriting (selected quantitative data: Natural catastrophe premiums across Swiss Re group; renewable energy generation facilities insured, potential emissions avoided due to renewable energy generation facilities; Women's World Banking microinsurance programme; life and health reinsurance policies in force and family members supported by life and health re/insurance policies);
- Responsible investing;
- Governance and compliance (quantitative data only);
- Sustainable operations (quantitative data only incl. restatements);
- Our people (quantitative data only);
- Appendix: 2022 Sustainability data (p.66 – 80)
  In "Sustainable operations" the reporting period of GHG emissions and underlying data is October 1, 2021 to September 30, 2022 for all data, except for Scope 3 category 6 (business travel) which is reported January 1, 2022 to December 31, 2022.

Furthermore, we assessed data and information disclosed in the chapter "Climate-related financial disclosures (TCFD)" in the Financial Report for the year ended December 31, 2022 (TCFD reporting 2022), including:

- Climate strategy - Investments
  - USD amount invested in green bonds as per December 31, 2022 (p.165)
  - Sectoral allocation of green bonds (p.165)
  - USD amount of capital deployed in social and renewable energy infrastructure debt as of December 31, 2022, incl. respective shares (p.165)
  - USD amount invested in renewable energy as of December 31, 2022 (p.165)
  - USD amount invested in energy efficiency projects as of December 31, 2022 (p.165)
  - USD amount invested in social infrastructure projects as of December 31, 2022 (p.165)
  - USD amount of total real estate investment portfolio as of December 31, 2022 (p.166)
  - USD amount and share of MINERGIE® certified real estate portfolio (p.166)
  - Swiss real estate portfolio by energy source (p.166)
  - Share of certified buildings, based on local energy labels (p.166)
- Annual expected losses (AEL) of the weather-related perils reporting (p.172);
- Climate metrics and targets – Investments
  - USD amount invested in green, social and sustainability bonds as per December 31, 2022 (p.174)
  - Share of green, social and sustainability bonds fulfilling the ICMA GBP and SBP (p.174)
  - 2022 data in the graph 'Carbon intensity of the corporate bond and listed equity portfolios' (p.175)
  - Absolute financed emissions (corporate bonds and listed equity, excluding ETFs) (p.175)
  - 2022 data in the graph 'Drivers of carbon intensity reduction from 2018 to 2022: corporate bond portfolio' (p.176)
  - 2022 data in the graph 'Carbon intensity as per year-end 2022: corporate bond portfolio vs benchmark' (p.176)

- 2022 data in the graph 'Drivers of carbon intensity reduction from 2018 to 2022: listed equity portfolio' (p.177)
- 2022 data in the graph 'Carbon intensity as per year-end 2022: listed equity portfolio vs benchmark' (p.175)
- 2022 carbon footprint of the Swiss and German real estate portfolio (p.178)
- Absolute financed emissions (Swiss and German real estate portfolio) (p.178)
- Carbon intensity of government bond portfolio versus G20 per year-end 2022 (p.178)
- 2022 data in the graph 'Temperature alignment comparison of portfolio vs benchmark' (p.179)

- Data tables: Greenhouse gas emissions from Swiss Re's operations (Scope 1, 2 and 3) (p.182 – 183) In "Greenhouse gas emissions from Swiss Re's operations (Scope 1, 2 and 3)" the reporting period of GHG emissions and underlying data is October 1, 2021 to September 30, 2022 for all data, except for Scope 3 category 6 (business travel) which is reported January 1, 2022 to December 31, 2022.

Our assurance engagement does not extend to information in respect of earlier periods or to any other information included in the Sustainability Report 2022 and in the Financial Report 2022 or linked to from the Selected Sustainability Information or from the Financial Report 2022, including any images, audio files or embedded videos.

Our Limited Assurance Conclusion

Based on the procedures we have performed as described under the *'Summary of the work we performed as the basis for our assurance conclusion'* and the evidence we have obtained, nothing has come to our attention that causes us to believe that Swiss Re's Selected Sustainability Information in the above-mentioned sections of the Sustainability Report and the Financial Report for the year ended December 31, 2022 are not prepared, in all material respects, in accordance with the reporting criteria described under *'Understanding how Swiss Re has prepared the Selected Sustainability Information'*.

We do not express an assurance conclusion on information in respect of earlier periods or to any other information included in the Sustainability Report 2022 and in the Financial Report 2022 or linked to from the Selected Sustainability Information or from the Financial Report 2022, including any images, audio files or embedded videos.

Understanding how Swiss Re has prepared the Selected Sustainability Information

The Selected Sustainability Information needs to be read and understood together with the following reporting criteria:

- Relevant references in GRI Sustainability Reporting Standards;
- Swiss Re's Group Risk Framework;
- Greenhouse Gas Protocol Initiative of the World Resources Institute and the World Business Council for Sustainable Development;
- BEIS 2021 Government Greenhouse Gas Conversion Factors for Company Reporting, Methodology Paper;
- IEA Emissions Factors 2020 Database Documentation;
- Internal Environmental Performance Indicators for the Financial Industry' published by the Verein für Umweltmanagement in Banken, Sparkassen und Versicherungen e.V. (VfU);
- The GHG Protocol Scope 2 Guidance, effective since January 2015;
- Further internal policies and guidelines applied regarding the subject matter.

Inherent limitations

Due to the inherent limitations of any internal control structure, it is possible that errors or irregularities may occur in disclosures of the Selected Sustainability Information and not be detected. Our engagement is not designed to detect all internal control weaknesses in the preparation of the Selected Sustainability Information because the engagement was not performed on a continuous basis throughout the period and the audit procedures performed were on a test basis.

The Sustainability information disclosed in the Sustainability Report 2022 and TCFD reporting 2022 include retired carbon certificates for the year ended December 31, 2022. In total the retired carbon certificates amount to 25'034 tCO_2 emissions and include both carbon avoidance certificates (76%) and carbon removal certificates (24%). We have performed procedures as to whether these retired CO_2 emissions relate to the current period, and whether the description of them in the Sustainability Report 2022 and TCFD reporting 2022 is consistent with their related documentation. We have not, however, performed any procedures regarding the assumptions used in the calculation methodology for these certificates, and express no opinion about whether the retired carbon have resulted, or will result in, carbon emissions being avoided or removed.

Swiss Re's Responsibilities

The Board of Directors of Swiss Re is responsible for:

- Selecting or establishing suitable criteria for preparing the Selected Sustainability Information, taking into account applicable law and regulations related to reporting the Selected Sustainability Information;
- The preparation of the Selected Sustainability Information in accordance with the reporting criteria described under 'Understanding how Swiss Re has prepared the Selected Sustainability Information';
- Designing, implementing and maintaining internal control over information relevant to the preparation of the Selected Sustainability Information that is free from material misstatement, whether due to fraud or error.

Our Responsibilities

We are responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the Selected Sustainability Information is free from material misstatement, whether due to fraud or error;
- Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- Reporting our conclusion to the Directors of Swiss Re.

As we are engaged to form an independent conclusion on the Selected Sustainability Information as prepared by management, we are not permitted to be involved in the preparation of the Selected Sustainability Information as doing so may compromise our independence.

Professional Standards Applied

We performed a limited assurance engagement in accordance with the International Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements other than Audits or Reviews of Historical Financial Information" and in respect of greenhouse gas emissions, with the International Standard on Assurance Engagements (ISAE 3410), "Assurance Engagements on Greenhouse Gas Statements", issued by the International Auditing and Assurance Standards Board.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior.

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. Our work was carried out by an independent and multidisciplinary team including assurance practitioners and sustainability experts. We remain solely responsible for our assurance conclusion.

KPMG

Summary of the Work we Performed as the Basis for our Assurance Conclusion

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the Selected Sustainability Information is likely to arise. The procedures we performed were based on our professional judgment. Carrying out our limited assurance engagement on the Selected Sustainability Information included, among others:

- Assessment of the design and implementation of systems, processes and internal controls for determining, processing and monitoring sustainability performance data, including the consolidation of data;
- Inquiries of employees responsible for the determination and consolidation as well as the implementation of internal control procedures regarding the selected disclosures;
- Inspection of selected internal and external documents to determine whether qualitative and quantitative information is supported by sufficient evidence and presented in an accurate and balanced manner;
- Assessment of the data collection, validation and reporting processes as well as the reliability of the reported data on a test basis and through testing of selected calculations;
- Analytical assessment of the data and trends of the quantitative disclosures in the scope of the limited assurance engagement;
- Assessment of the consistency of the disclosures in the scope of the assurance with the other disclosures and key figures in the Sustainability Report 2022 and the TCFD reporting 2022;
- Assessment of the overall presentation of the disclosures through critical reading of the Sustainability Report 2022 and the TCFD reporting 2022.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

KPMG AG

Silvan Jurt
Licensed audit expert

Theresa Tiersch

Zurich, March 15, 2023

Financial Statements

Income statement

For the years ended 31 December

USD millions	Note	2021	2022
Revenues			
Gross premiums written	4	46 658	**47 889**
Net premiums written	4	43 220	**43 917**
Change in unearned premiums		–753	**–1 049**
Premiums earned	3	42 467	**42 868**
Fee income from policyholders	3	259	**250**
Net investment income – non-participating business[1]	7	3 373	**2 869**
Net realised investment gains/losses – non-participating business[2]	7	537	**–3**
Net investment result – unit-linked business	7	63	**–43**
Other revenues		40	**57**
Total revenues		46 739	**45 998**
Expenses			
Claims and claim adjustment expenses	3	–17 181	**–19 271**
Life and health benefits	3	–14 992	**–14 057**
Return credited to policyholders		–431	**–280**
Acquisition costs	3	–8 228	**–7 800**
Operating expenses		–3 505	**–3 369**
Total expenses before interest expenses		–44 337	**–44 777**
Income before interest and income tax expense		2 402	**1 221**
Interest expenses		–571	**–570**
Income before income tax expense		1 831	**651**
Income tax expense	14	–394	**–171**
Net income before attribution of non-controlling interests		1 437	**480**
Income/loss attributable to non-controlling interests			**–8**
Net income attributable to common shareholders		1 437	**472**
Earnings per share in USD			
Basic	13	4.97	**1.63**
Diluted	13	4.78	**1.60**
Earnings per share in CHF[3]			
Basic	13	4.52	**1.63**
Diluted	13	4.35	**1.60**

[1] Total impairments for the years ended 31 December of nil in 2021 and USD 18 million in 2022, respectively, were fully recognised in earnings.
[2] Total impairments for the years ended 31 December of USD 10 million in 2021 and of USD 70 million in 2022, respectively, were fully recognised in earnings.
[3] 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	2021	2022
Net income before attribution of non-controlling interests	1 437	**480**
Other comprehensive income, net of tax:		
Change in net unrealised investment gains/losses	–2 951	**–9 736**
Change in other-than-temporary impairment	–5	**–2**
Change in foreign currency translation	–461	**68**
Change in adjustment for pension benefits	259	**124**
Change in credit risk of financial liabilities at fair value option		**–1**
Other comprehensive income/loss attributable to non-controlling interests	–16	**–7**
Total comprehensive income/loss before attribution of non-controlling interests	–1 737	**–9 074**
Comprehensive income/loss attributable to non-controlling interests	16	**–1**
Total comprehensive income/loss attributable to common shareholders	–1 721	**–9 075**

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

2021 USD millions	Net unrealised investment gains/losses[1]	Other-than-temporary impairment[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	5 760	–1	–5 755	–808	4	–800
Change during the period	–4 063	–6	–335	259		–4 145
Amounts reclassified out of accumulated other comprehensive income	367		–13	70		424
Tax	745	1	–113	–70		563
Balance as of period end	2 809	–6	–6 216	–549	4	–3 958

2022 USD millions	Net unrealised investment gains/losses[1]	Other-than-temporary impairment[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	–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**	**–6 148**	**–425**	**3**	**–13 505**

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

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

Balance sheet

Assets
As of 31 December

USD millions	Note	2021	2022
Investments	7, 8, 9		
Fixed income securities:			
Available-for-sale (including 13 662 in 2021 and 12 355 in 2022 subject to securities lending and repurchase agreements) (amortised cost: 2021: 82 230; 2022: 82 638)		85 685	**74 089**
Trading (including 824 in 2021 and 143 in 2022 subject to securities lending and repurchase agreements)		1 300	**484**
Equity securities at fair value through earnings (including 2 in 2021 and 12 in 2022 subject to securities lending and repurchase agreements)		3 978	**2 114**
Policy loans, mortgages and other loans		3 943	**4 343**
Investment real estate		2 871	**2 931**
Short-term investments (including 1 384 in 2021 and 1 465 in 2022 subject to securities lending and repurchase agreements)		8 462	**8 907**
Other invested assets		9 879	**8 794**
Investments for unit-linked business (including equity securities at fair value through earnings: 468 in 2021 and 330 in 2022)		468	**330**
Total investments		116 586	**101 992**
Cash and cash equivalents (including 903 in 2021 and 421 in 2022 subject to securities lending, and 4 in 2021 and 5 in 2022 backing unit-linked contracts)		5 051	**4 077**
Accrued investment income		638	**684**
Premiums and other receivables		16 875	**18 145**
Reinsurance recoverable on unpaid claims and policy benefits		6 482	**6 507**
Funds held by ceding companies		12 532	**13 929**
Deferred acquisition costs	6	8 142	**8 121**
Acquired present value of future profits	6	836	**794**
Goodwill		3 970	**3 863**
Income taxes recoverable		341	**356**
Deferred tax assets	14	6 131	**8 284**
Other assets		3 983	**3 924**
Total assets		181 567	**170 676**

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

Liabilities and Equity
As of 31 December

USD millions	Note	2021	2022
Liabilities			
Unpaid claims and claim adjustment expenses	5	84 096	**85 418**
Liabilities for life and health policy benefits		22 196	**20 925**
Policyholder account balances		5 147	**4 850**
Unearned premiums		14 134	**14 747**
Funds held under reinsurance treaties		6 553	**6 921**
Reinsurance balances payable		1 074	**1 837**
Income taxes payable		320	**254**
Deferred and other non-current tax liabilities	14	6 384	**6 011**
Short-term debt	11	862	**786**
Accrued expenses and other liabilities		6 800	**5 866**
Long-term debt	11	10 323	**10 252**
Total liabilities		157 889	**157 867**
Equity			
Common shares, CHF 0.10 par value			
2021: 317 497 306; 2022: 317 497 306 shares authorised and issued		30	**30**
Additional paid-in capital		266	**293**
Treasury shares, net of tax		–1 402	**–1 398**
Accumulated other comprehensive income:			
Net unrealised investment gains/losses, net of tax		2 809	**–6 927**
Other-than-temporary impairment, net of tax		–6	**–8**
Foreign currency translation, net of tax		–6 216	**–6 148**
Adjustment for pension and other post-retirement benefits, net of tax		–549	**–425**
Credit risk of financial liabilities at fair value option, net of tax		4	**3**
Total accumulated other comprehensive income		–3 958	**–13 505**
Retained earnings		28 632	**27 279**
Shareholders' equity		23 568	**12 699**
Non-controlling interests		110	**110**
Total equity		23 678	**12 809**
Total liabilities and equity		181 567	**170 676**

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

Statement of shareholders' equity

For the years ended 31 December

USD millions	2021	**2022**
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	251	**266**
Share-based compensation	21	**13**
Realised gains/losses on treasury shares	–6	**14**
Balance as of period end	266	**293**
Treasury shares, net of tax		
Balance as of 1 January	–1 396	**–1 402**
Purchase of treasury shares	–48	**–44**
Issuance of treasury shares, including share-based compensation to employees	42	**48**
Balance as of period end	–1 402	**–1 398**
Net unrealised investment gains/losses, net of tax		
Balance as of 1 January	5 760	**2 809**
Changes during the period	–2 951	**–9 736**
Balance as of period end	2 809	**–6 927**
Other-than-temporary impairment, net of tax		
Balance as of 1 January	–1	**–6**
Changes during the period	–5	**–2**
Balance as of period end	–6	**–8**
Foreign currency translation, net of tax		
Balance as of 1 January	–5 755	**–6 216**
Changes during the period	–461	**68**
Balance as of period end	–6 216	**–6 148**
Adjustment for pension and other post-retirement benefits, net of tax		
Balance as of 1 January	–808	**–549**
Changes during the period	259	**124**
Balance as of period end	–549	**–425**

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

USD millions	2021	2022
Credit risk of financial liabilities at fair value option, net of tax		
Balance as of 1 January	4	**4**
Changes during the period		**–1**
Balance as of period end	4	**3**
Retained earnings		
Balance as of 1 January	29 050	**28 632**
Net income after attribution of non-controlling interests	1 437	**472**
Dividends on common shares	–1 855	**–1 825**
Balance as of period end	28 632	**27 279**
Shareholders' equity	23 568	**12 699**
Non-controlling interests		
Balance as of 1 January	123	**110**
Transactions with non-controlling interests	3	
Income/loss attributable to non-controlling interests		**8**
Other comprehensive income attributable to non-controlling interests:		
Change in net unrealised investment gains/losses	–5	**–4**
Change in foreign currency translation	–11	**–3**
Dividends to non-controlling interests		**–1**
Balance as of period end	110	**110**
Total equity	23 678	**12 809**

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

Statement of cash flows

For the years ended 31 December

USD millions	2021	2022
Cash flows from operating activities		
Net income attributable to common shareholders	1 437	**472**
Add income/loss attributable to non-controlling interests		**8**
Adjustments to reconcile net income to net cash provided/used by operating activities:		
Depreciation, amortisation and other non-cash items	666	**425**
Net realised investment gains/losses	–578	**67**
Income from equity-accounted investees, net of dividends received	–570	**258**
Change in:		
Technical provisions and other reinsurance assets and liabilities, net	4 251	**3 263**
Funds held by ceding companies and under reinsurance treaties	–400	**–1 019**
Reinsurance recoverable on unpaid claims and policy benefits	–474	**–143**
Other assets and liabilities, net	–81	**–460**
Income taxes payable/recoverable	136	**–248**
Derivative financial instruments and collateral, net	–283	**304**
Net cash provided/used by operating activities	4 104	**2 927**
Cash flows from investing activities		
Fixed income securities:		
Sales	34 414	**24 088**
Maturities	9 700	**5 447**
Purchases	–53 581	**–32 393**
Net purchases/sales/maturities of short-term investments	7 305	**–590**
Equity securities:		
Sales	2 387	**2 461**
Purchases	–1 364	**–1 270**
Securities purchased/sold under agreement to resell/repurchase, net	493	**193**
Cash paid/received for acquisitions/disposals and reinsurance transactions, net	–42	**22**
Net purchases/sales/maturities of other investments	–1 481	**–321**
Net purchases/sales/maturities of investments held for unit-linked business	32	**25**
Net cash provided/used by investing activities	–2 137	**–2 338**
Cash flows from financing activities		
Policyholder account balances, unit-linked business:		
Deposits	9	**18**
Withdrawals	–64	**–66**
Issuance/repayment of long-term debt	–51	**1 449**
Issuance/repayment of short-term debt	–102	**–806**
Purchase/sale of treasury shares	–37	**–6**
Dividends paid to shareholders	–1 855	**–1 825**
Dividends paid to non-controlling interests		**–1**
Net cash provided/used by financing activities	–2 100	**–1 237**

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

USD millions	2021	2022
Total net cash provided/used	–133	**–648**
Effect of foreign currency translation	–286	**–326**
Change in cash and cash equivalents	–419	**–974**
Cash and cash equivalents as of 1 January	5 470	**5 051**
Cash and cash equivalents as of 31 December	5 051	**4 077**

Interest paid was USD 559 million and USD 565 million (thereof USD 8 million and USD 8 million for letter of credit fees) for 2021 and 2022, respectively. Tax paid was USD 258 million and USD 419 million for 2021 and 2022, 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 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 will continue to be 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 2022, the Group had not provided any collateral on financial instruments in excess of its own market value estimates.

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

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

Equity investments are carried at fair value with unrealised gains and losses recognised in earnings, with the exception of equity method investments and investments that result in consolidation.

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

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

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

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

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

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

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

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

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

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

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

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

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

Deferred acquisition costs for short-duration contracts are amortised in proportion to premiums earned. Deferred acquisition costs for traditional long-duration contracts are amortised over the life of underlying contracts based upon the present value of gross premiums. Deferred acquisition costs for universal-life type contracts and similar products are amortised based on the present value of estimated gross profits. Estimated gross profits are updated quarterly.

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

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

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

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

Goodwill
The excess of the purchase price of acquired businesses over the estimated fair value of net assets acquired is recorded as goodwill. The goodwill is tested for impairment on an annual basis as of 30 September, unless there is an event or circumstances which makes an impairment more likely than not. Adjustments to reflect impairment in value are recognised in earnings in the period in which the determination of impairment is made.

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

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

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

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

Additional disclosures are provided in Note 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 COVID-19 pandemic has continued to add some degree of uncertainty during 2022, both in respect of estimation of claims across the insurance and reinsurance industry and assessments of the wider potential global health and economic impacts. The Group has recorded its best estimate of claims and claim adjustment expenses incurred as a result of the pandemic as of 31 December 2022, with the best estimate reflecting the Group's expectations based on current facts and circumstances.

The Group does not discount liabilities arising from prospective property and casualty insurance and reinsurance contracts, including liabilities which are discounted for US statutory reporting purposes. Liabilities arising from property and casualty insurance and reinsurance contracts acquired in a business combination are initially recognised at fair value in accordance with the acquisition method of accounting.

The Group does not discount life and health claim reserves except for disability income claims in payment and mortality claims paid out in the form of an annuity. These claims are recognised at the estimated present value of the remaining ultimate net costs of the incurred claims.

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

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

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

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

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

Amounts assessed against policyholders for mortality, administration and surrender are reported as fee income. Amounts credited to policyholders are reported as interest credited to policyholders. Investment income and realised investment gains and losses allocable to policyholders are included in net investment income and net realised investment gains/losses except for unit-linked, which is presented in a separate line item on the face of the income statement.

In unit-linked contracts, the investment risk is borne by the policyholder. Additional disclosures are provided in Note 7 "Investments".

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

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

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

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

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

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

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

For short duration contracts, a premium deficiency exists when the unearned premium plus expected investment income is less than the total of expected claim costs and claim adjustment expenses, related estimated policy maintenance costs (incl. 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 collectability of the outstanding balances.

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

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

Share-based payment transactions
As of 31 December 2022, the Group has a Leadership Performance Plan (LPP)/Leadership Share Plan (LSP), restricted shares and a Global Share Participation Plan. These plans are described in more detail in Note 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 15 March 2023. This is the date on which the financial statements are available to be issued.

Adoption of new accounting standards
In May 2021, the FASB issued ASU 2021-04, "Modification of equity-classified written call options", an update to Topic 260, "Earnings per share", to Topic 470-50, "Debt – Modification and Extinguishments", to Topic 718, "Compensation – Stock Compensation", and to Topic 815-40, "Derivatives and Hedging – Contract in Entity's Own Equity". The amendments in this update clarify and reduce diversity in the accounting by issuers for modifications or exchanges of freestanding equity-classified written call options that remain equity classified after modification or exchange. The Group adopted the standard on 1 January 2022. The adoption did not have an impact on the Group's financial statements.

In July 2021, the FASB issued ASU 2021-05, "Lessors – Certain Leases with Variable Lease Payments", an update to Topic 842, "Leases". The amendments in this update address stakeholders' concerns by amending the lease classification requirements for lessors to align them with practice under Topic 840. A lessor shall account for a lease with variable lease payments that do not depend on an index or a rate as an operating lease, if classifying the lease as a sales-type lease or a direct financing lease would result in the recognition of a day-one loss. The Group adopted the standard on 1 January 2022. The adoption did not have an impact on the Group's financial statements.

In November 2021, the FASB issued ASU 2021-10, "Disclosures by Business Entities about Government Assistance", an update to Topic 832, "Government Assistance". The amendments in this update require additional annual disclosures about transactions with a government that are accounted for by applying a grant or contribution accounting model. The Group adopted the standard on 1 January 2022. 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 2022, the Group applied the guidance to Topic 815 related to Group's adherence to the ISDA 2020 Fallbacks Protocol, which is a standardized approach for amending contracts in order to incorporate IBOR fallback provisions and related to changes to the critical terms of a hedging relationship due to reference rate reform as well as to Topic 944 related to changes resulting from the replacement of discontinued reference rates included in contracts within the scope of Topic 944, "Financial Services – Insurance". 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 2022.

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 June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses", an update to Topic 326, "Financial Instruments – Credit Losses". ASU 2016-13 replaces the incurred loss impairment methodology in current US GAAP with a methodology that reflects expected credit losses. The standard is applicable to all assets such as financial instruments that are measured at amortised cost, fixed income securities available-for-sale, premium receivables, funds withheld assets and reinsurance recoverables. The objective of the expected credit loss model is that a reporting entity recognises its estimate of expected credit losses incorporating forward-looking information in a valuation allowance for assets in scope. The Group will adopt ASU 2016-13 on 1 January 2023 using a modified retrospective method. The impact of the adoption of the standard is expected to be a reduction in opening retained earnings of approximately USD 0.1 billion, net of tax, primarily driven by fixed income securities available-for-sale, other loans and reinsurance recoverables.

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

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 (e.g. mortality, morbidity, terminations) when measuring the liability for future policy benefits for nonparticipating traditional and limited-payment insurance and reinsurance contracts. There will no longer be a provision for adverse deviation. In addition, the discount rate used to reflect the time value of money in the calculation of the liability for future policy benefits will be standardised. Further, the ASU requires deferred acquisition costs (DAC) relating to most long-duration contracts to be amortised on a constant basis over the expected term of the contract. As amended by ASU 2020-11 "Effective Date and Early Application", ASU 2018-12 is effective for annual periods beginning after 15 December 2024, and interim periods beginning after 15 December 2025. Due to the decision of the Board of Directors of Swiss Re Ltd to prepare the Group's consolidated financial statements in accordance with IFRS beginning 1 January 2024, the Group does not plan to adopt ASU 2018-12.

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2 Information on business segments

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

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

Accounting policies applied by the business segments are in line with those described in the summary of significant accounting policies (please refer to Note 1). Cross-segmental dividends and gains and losses on certain one-off transfers and transactions between segments are accounted for through segmental shareholders' equity.

The Group operating segments are outlined below.

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

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

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

Group items
Group items includes iptiQ, which operates as a standalone division, with results reported within the Group items segment. Group items also includes items not allocated to the business segments, which encompass Principal Investments, Swiss Re Ltd, the Group's ultimate parent company, certain Treasury units and reinsurance and insurance business in run-off. iptiQ partners with distributors providing Swiss Re access to risk pools offering white labelled protection cover in both the life and health as well as property and casualty businesses.
Swiss Re Ltd charges trademark licence fees to the business segments which are reported as other revenues. Certain administrative expenses of the corporate centre functions that are not recharged to the operating segments are reported as Group items. As of 1 January 2022, a part of Principal Investments, Admin Re US as well as certain cross-segmental loans have been reallocated from Group items to Reinsurance. Segmental comparative information for 2021 has been adjusted accordingly.

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

2021[1] USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
Revenues						
Gross premiums written	23 246	16 119	7 492	747	–946	46 658
Net premiums written	22 381	14 632	5 717	490		43 220
Change in unearned premiums	–455	104	–374	–28		–753
Premiums earned	21 926	14 736	5 343	462		42 467
Fee income from policyholders		259				259
Net investment income – non-participating business	1 756	1 409	121	262	–175	3 373
Net realised investment gains/losses – non-participating business	544	338	115	–460		537
Net investment result – unit-linked business		63				63
Other revenues	20	3	12	412	–407	40
Total revenues	24 246	16 808	5 591	676	–582	46 739
Expenses						
Claims and claim adjustment expenses	–14 773		–2 374	–38	4	–17 181
Life and health benefits		–13 744	–924	–320	–4	–14 992
Return credited to policyholders		–431				–431
Acquisition costs	–5 359	–2 056	–690	–123		–8 228
Operating expenses	–1 167	–876	–851	–1 018	407	–3 505
Total expenses before interest expenses	–21 299	–17 107	–4 839	–1 499	407	–44 337
Income/loss before interest and income tax expense/benefit	2 947	–299	752	–823	–175	2 402
Interest expenses	–292	–273	–26	–155	175	–571
Income/loss before income tax expense/benefit	2 655	–572	726	–978	0	1 831
Income tax expense/benefit	–438	94	–149	99		–394
Net income/loss before attribution of non-controlling interests	2 217	–478	577	–879	0	1 437
Income/loss attributable to non-controlling interests	–1		1			
Net income/loss attributable to common shareholders	2 216	–478	578	–879	0	1 437
Claims ratio in %	67.3		61.8			66.3
Expense ratio in %	29.8		28.8			29.6
Combined ratio in %	97.1		90.6			95.9
Management expense ratio[2] in %		5.3				
Net operating margin[3] in %	12.2	–1.8	13.5			5.1

[1] Comparative information for 2021 has been revised to reflect the reallocation of part of Principal Investments, Admin Re US as well as certain cross-segmental loans from Group items to Reinsurance.
[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

2022 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	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	–16 344		–2 889	–38		–19 271
Life and health benefits		–12 948	–675	–434		–14 057
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**
Claims ratio in %	74.2		65.0			72.3
Expense ratio in %	28.2		28.1			28.2
Combined ratio in %	102.4		93.1			100.5
Management expense ratio[1] in %		5.1				
Net operating margin[2] in %	3.2	4.3	11.0			2.7

[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/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

2021[1] USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
Assets						
Fixed income securities	42 762	34 086	9 688	449		86 985
Equity securities	2 223	213	254	1 288		3 978
Other investments	20 734	3 658	162	2 528	–10 389	16 693
Short-term investments	4 335	2 327	1 476	324		8 462
Investments for unit-linked business		468				468
Cash and cash equivalents	1 473	2 048	858	672		5 051
Deferred acquisition costs	2 538	4 718	480	406		8 142
Acquired present value of future profits		836				836
Reinsurance recoverable	2 004	2 289	6 907	114	–4 832	6 482
Other reinsurance assets	15 423	11 963	3 120	164	–1 263	29 407
Goodwill	1 903	1 855	182	30		3 970
Other	9 254	9 243	3 142	3 906	–14 452	11 093
Total assets	102 649	73 704	26 269	9 881	–30 936	181 567
Liabilities						
Unpaid claims and claim adjustment expenses	56 883	16 152	15 660	232	–4 831	84 096
Liabilities for life and health policy benefits		20 487	798	912	–1	22 196
Policyholder account balances		5 147				5 147
Other reinsurance liabilities	16 040	1 627	5 317	424	–1 647	21 761
Short-term debt	1 034	250		642	–1 064	862
Long-term debt	3 596	11 774	499	2 347	–7 893	10 323
Other	14 493	11 012	1 141	2 358	–15 500	13 504
Total liabilities	92 046	66 449	23 415	6 915	–30 936	157 889
Shareholders' equity	10 596	7 255	2 751	2 966	0	23 568
Non-controlling interests	7		103			110
Total equity	10 603	7 255	2 854	2 966	0	23 678
Total liabilities and equity	102 649	73 704	26 269	9 881	–30 936	181 567

[1] Comparative information for 2021 has been revised to reflect the reallocation of part of Principal Investments, Admin Re US as well as certain cross-segmental loans from Group items to Reinsurance.

Business segments – balance sheet
As of 31 December

2022 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance[1]	Corporate Solutions[1]	Group items[1]	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**

[1] Information reflects the sale of Elips Life AG and the simultaneously entered long-term reinsurance partnership. Please refer to Note 10 "Disposals" for more details.

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

2021 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	9 855	9 681	3 710		23 246
Net premiums written	9 102	9 624	3 655		22 381
Change in unearned premiums	–409	140	–186		–455
Premiums earned	8 693	9 764	3 469		21 926
Net investment income				1 756	1 756
Net realised investment gains/losses				544	544
Other revenues				20	20
Total revenues	8 693	9 764	3 469	2 320	24 246
Expenses					
Claims and claim adjustment expenses	–5 685	–7 057	–2 031		–14 773
Acquisition costs	–1 743	–2 750	–866		–5 359
Operating expenses	–589	–372	–206		–1 167
Total expenses before interest expenses	–8 017	–10 179	–3 103	0	–21 299
Income/loss before interest and income tax expense	676	–415	366	2 320	2 947
Interest expenses				–292	–292
Income/loss before income tax expense	676	–415	366	2 028	2 655
Claims ratio in %	65.4	72.3	58.5		67.3
Expense ratio in %	26.8	32.0	30.9		29.8
Combined ratio in %	92.2	104.3	89.4		97.1

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**
Claims ratio in %	74.4	77.5	65.3		74.2
Expense ratio in %	24.3	32.1	27.9		28.2
Combined ratio in %	98.7	109.6	93.2		102.4

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

2021 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	11 348	4 771		16 119
Net premiums written	10 146	4 486		14 632
Change in unearned premiums	46	58		104
Premiums earned	10 192	4 544		14 736
Fee income from policyholders	259			259
Net investment income – non-participating business	1 186	223		1 409
Net realised investment gains/losses – non-participating business	–3		341	338
Net investment result – unit-linked business	63			63
Other revenues	2	1		3
Total revenues	11 699	4 768	341	16 808
Expenses				
Life and health benefits	–10 360	–3 384		–13 744
Return credited to policyholders	–431			–431
Acquisition costs	–1 388	–668		–2 056
Operating expenses	–572	–304		–876
Total expenses before interest expenses	–12 751	–4 356	0	–17 107
Income/loss before interest and income tax expense	–1 052	412	341	–299
Interest expenses			–273	–273
Income/loss before income tax expense	–1 052	412	68	–572
Management expense ratio[1] in %	4.9	6.4		5.3
Net operating margin[2] in %	–9.0	8.6		–1.8

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

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".

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

2021 USD millions	iptiQ	Other	Total
Revenues			
Gross premiums written	723	24	747
Net premiums written	466	24	490
Change in unearned premiums	–28		–28
Premiums earned	438	24	462
Net investment income – non-participating business	21	241	262
Net realised investment gains/losses	–4	–456	–460
Other revenues	2	410	412
Total revenues	457	219	676
Expenses			
Claims and claim adjustment expenses	–38		–38
Life and health benefits	–302	–18	–320
Acquisition costs	–105	–18	–123
Operating expenses	–290	–728	–1 018
Total expenses before interest expenses	–735	–764	–1 499
Income/loss before interest and income tax expense/benefit	–278	–545	–823
Interest expenses	–1	–154	–155
Income/loss before income tax expense/benefit	–279	–699	–978
Income tax expense/benefit	32	67	99
Net income/loss	–247	–632	–879

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**

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	2021	2022
Americas	20 984	22 151
Europe (including Middle East and Africa)	13 543	13 211
Asia-Pacific	8 199	7 756
Total	42 726	**43 118**

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

USD millions	2021	2022
United States	18 300	19 557
United Kingdom	3 963	3 878
Australia	2 055	1 830
China	1 847	1 619
Canada	1 509	1 517
Germany	1 450	1 349
Japan	1 288	1 160
Ireland	813	1 021
France	1 022	996
Netherlands	1 131	870
Switzerland	990	739
Other	8 358	8 582
Total	42 726	**43 118**

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

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Premiums earned, thereof:					
Direct			5 816	624	6 440
Reinsurance	22 057	16 192	1 021	9	39 279
Intra-group transactions (assumed and ceded)	654	9	–501	–162	0
Premiums earned before retrocession to external parties	22 711	16 201	6 336	471	45 719
Retrocession to external parties	–785	–1 465	–993	–9	–3 252
Net premiums earned	21 926	14 736	5 343	462	42 467
Fee income from policyholders, thereof:					
Direct					0
Reinsurance		261			261
Gross fee income before retrocession to external parties		261			261
Retrocession to external parties		–2			–2
Net fee income	0	259	0	0	259

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**

Claims and claim adjustment expenses
For the year ended 31 December

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Claims paid, thereof:					
Gross claims paid to external parties	−11 818	−14 235	−3 751	−500	−30 304
Intra-group transactions (assumed and ceded)	−561	−75	534	102	0
Claims before receivables from retrocession to external parties	−12 379	−14 310	−3 217	−398	−30 304
Retrocession to external parties	282	1 493	518	2	2 295
Net claims paid	−12 097	−12 817	−2 699	−396	−28 009
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:					
Gross – with external parties	−2 903	−1 070	−696	7	−4 662
Intra-group transactions (assumed and ceded)	166	70	−265	29	0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties	−2 737	−1 000	−961	36	−4 662
Retrocession to external parties	61	73	362	2	498
Net unpaid claims and claim adjustment expenses; life and health benefits	−2 676	−927	−599	38	−4 164
Claims and claim adjustment expenses; life and health benefits	−14 773	−13 744	−3 298	−358	−32 173

Acquisition costs
For the year ended 31 December

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Acquisition costs, thereof:					
Gross acquisition costs with external parties	−5 374	−2 332	−923	−154	−8 783
Intra-group transactions (assumed and ceded)	−112	−4	87	29	0
Acquisition costs before impact of retrocession to external parties	−5 486	−2 336	−836	−125	−8 783
Retrocession to external parties	127	280	146	2	555
Net acquisition costs	−5 359	−2 056	−690	−123	−8 228

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**

Reinsurance recoverable on unpaid claims and policy benefits
As of 31 December 2021 and 2022, the Group had a reinsurance recoverable of USD 6 482 million and USD 6 507 million, respectively. The concentration of credit risk is regularly monitored and evaluated. The reinsurance programme with Berkshire Hathaway and subsidiaries accounted for 26% and 24% of the Group's reinsurance recoverable as of year-end 2021 and 2022, respectively.

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

USD millions	2021	**2022**
Premium receivables invoiced	4 835	4 717
Receivables invoiced from ceded re/insurance business	392	517
Assets arising from the application of the deposit method of accounting and meeting the definition of financing receivables	640	614
Recognised allowance	–80	–71

4 Premiums written

For the years ended 31 December

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
Gross premiums written, thereof:						
Direct			6 321	738		7 059
Reinsurance	22 424	16 110	1 056	9		39 599
Intra-group transactions (assumed)	822	9	115		–946	0
Gross premiums written	23 246	16 119	7 492	747	–946	46 658
Intra-group transactions (ceded)	–115		–585	–246	946	0
Gross premiums written before retrocession to external parties	23 131	16 119	6 907	501		46 658
Retrocession to external parties	–750	–1 487	–1 190	–11		–3 438
Net premiums written	22 381	14 632	5 717	490	0	43 220

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**

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	2021	**2022**
Balance as of 1 January	81 258	84 096
Reinsurance recoverable	−3 636	−3 975
Deferred expense on retroactive reinsurance	−191	−165
Net balance as of 1 January	77 431	**79 956**
Incurred related to:		
Current year[1]	32 416	32 255
Prior year[1]	−487	675
Amortisation of deferred expense on retroactive reinsurance and impact of commutations	8	9
Total incurred	31 937	**32 939**
Paid related to:		
Current year[1]	−9 718	−8 798
Prior year[1]	−18 291	−20 648
Total paid	−28 009	**−29 446**
Foreign exchange	−1 686	−2 731
Effect of acquisitions, disposals, new retroactive reinsurance and other items	283	355
Net balance as of period end	79 956	**81 073**
Reinsurance recoverable	3 975	4 224
Deferred expense on retroactive reinsurance	165	121
Balance as of period end	84 096	**85 418**

[1] The Group has revised the methodology used to estimate the current/prior year split of incurred and paid claims for a part of the individual mortality business in the US. The revision had no impact on net income or shareholders' equity. The comparatives have been adjusted accordingly.

Prior-year development

Non-life claims development on prior years in the year ended 31 December 2022 is mainly driven by increasing reserves to allow for heightened inflation across all the regions. Excluding this inflation adjustment, there is favourable development in property and specialty, partially offset by adverse development from casualty. The adverse movement in casualty is mainly from liability and motor, partly offset by favourable development in workers' compensation. Development in property is principally due to lower-than-expected claims activity in all regions. Specialty was mainly impacted by favourable development in engineering and marine partly offset by adverse experience in aviation.

For life and health lines of business, development on prior years' unpaid claims in the year ended 31 December 2022 is unfavourable. There is unfavourable development in the US, Latin America, Australia & New Zealand, and Asia driven by adverse experience and strengthening of claim reserves, partially offset by favourable development in Continental Europe and 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	2021	**2022**
Line of business:		
Property	–918	–468
Casualty	473	810
Specialty	–255	–13
Life and health[2]	213	346
Total	–487	**675**

[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.
[2] The Group has revised the methodology used to estimate the current/prior year split of incurred and paid claims for a part of the individual mortality business in the US. The revision had no impact on net income or shareholders' equity. The comparatives have been adjusted accordingly.

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 2022, the Group carried net reserves for US asbestos and environmental liabilities equal to USD 1 285 million. During 2022, the Group incurred net gains of USD 21 million and net paid losses of USD 124 million in relation to these liabilities. These amounts include ULAE.

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. This is also the case for Life & Health business in the Corporate Solutions segment, where short duration contracts mainly include medical expenses coverage business.

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

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

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

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

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

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

Non-life re/insurance contracts

The Group develops and recognises its own estimate of IBNR claims, which includes circumstances in which cedents have not reported any claims to the Group or where the Group's estimate of reserves needed to cover reported claims differs from the amounts reported by cedents. For reinsurance business, case reserves and estimated IBNR are reported by cedents and this IBNR is presented together with the Group's own estimate as IBNR in the claims development tables. For insurance business, reserving is performed similarly, except that estimates for case reserves and IBNR are performed by the Group.

Reserving is done on portfolio or contract level depending on the features of the contract. For business reviewed on a portfolio level, the expected ultimate losses are set for most lines and types of business based on analysis performed using standard actuarial techniques. In general, contracts are aggregated into portfolios by combining contracts with similar features, and ultimate losses are derived using a blend of initial costing loss ratio and actual reported experience, with more weighting given to experience over time.

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

In most cases, these standard actuarial techniques encompass a number of loss development factor techniques applied to claim tables of paid and reported losses. Other actuarial techniques may be applicable to specific categories, such as an analysis of frequency and severity. Life contingency techniques for projecting regular payments related to bodily injury claims are applied to motor proportional, motor non-proportional, liability proportional, liability non-proportional, accident and health, 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 231). 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	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	**thereof IBNR**
2013	2 994	3 004	2 837	2 756	2 733	2 718	2 713	2 706	2 723	2 724	0
2014		2 605	2 443	2 269	2 237	2 233	2 220	2 232	2 219	2 220	–1
2015			2 717	2 649	2 480	2 450	2 410	2 393	2 401	2 400	–3
2016				3 732	3 477	3 191	3 182	3 157	3 180	3 190	3
2017					5 886	5 774	5 539	5 510	5 488	5 495	27
2018						4 313	4 682	4 448	4 374	4 358	46
2019							4 783	4 735	4 563	4 537	58
2020								7 010	6 695	6 574	862
2021	RSI [1]								5 804	5 714	945
2022										6 877	3 944
Total										**44 089**	**5 881**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
2013	528	1 909	2 391	2 576	2 633	2 654	2 668	2 681	2 693	2 697
2014		449	1 621	1 980	2 101	2 143	2 157	2 176	2 179	2 185
2015			457	1 585	2 076	2 234	2 309	2 331	2 350	2 354
2016				625	2 122	2 724	2 923	3 005	3 061	3 078
2017					961	3 578	4 622	4 950	5 102	5 204
2018						607	3 134	3 665	3 806	3 919
2019							891	2 981	3 656	4 002
2020								1 269	3 665	4 684
2021	RSI [1]								1 104	3 145
2022										1 245
Total										**32 513**
All liabilities before 2013										228
Liabilities for claims and claim adjustment expenses, net of reinsurance										**11 804**

[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])	18.6%	46.8%	16.8%	6.0%	2.5%	1.2%	0.7%	0.3%	0.4%	0.1%

[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 - 2022 accident year claims incurred are higher due to natural catastrophes and 2020 was impacted by COVID-19. The reporting year includes inflation increases where appropriate.

Property & Casualty Reinsurance – Liability, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	**thereof IBNR**
2013	720	743	751	745	750	741	739	742	750	750	59
2014		985	975	988	977	966	1 000	1 008	1 023	1 036	113
2015			1 251	1 299	1 391	1 462	1 535	1 521	1 554	1 570	172
2016				1 691	1 698	1 696	1 797	1 848	1 886	1 942	383
2017					1 946	2 053	2 193	2 373	2 433	2 513	570
2018						1 881	2 057	2 202	2 306	2 483	788
2019							2 627	2 978	3 050	3 213	1 375
2020								2 825	2 974	2 989	1 692
2021	RSI [1]								2 609	2 619	2 043
2022										2 219	2 031
Total										**21 334**	**9 226**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
2013	15	125	230	344	426	501	554	585	607	631
2014		24	155	288	426	561	655	736	795	835
2015			35	207	421	648	898	1 076	1 151	1 247
2016				47	103	395	660	894	1 074	1 251
2017					50	249	537	995	1 239	1 510
2018						52	306	568	844	1 201
2019							83	396	719	1 184
2020								112	328	701
2021	RSI [1]								84	286
2022										82
Total										**8 928**
All liabilities before 2013										983
Liabilities for claims and claim adjustment expenses, net of reinsurance										**13 389**

[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%	9.3%	12.5%	14.3%	12.7%	10.1%	7.2%	5.3%	3.4%	3.2%

[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 2022 are driven by US business and inflation increases where appropriate.

Property & Casualty Reinsurance – Liability, non-proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	**thereof IBNR**
2013	*400*	*382*	*347*	*293*	*268*	*248*	*249*	*244*	*239*	231	33
2014		*426*	*430*	*399*	*357*	*329*	*348*	*348*	*336*	332	64
2015			*1 674*	*1 711*	*1 683*	*1 700*	*1 724*	*1 702*	*1 510*	1 512	91
2016				*574*	*555*	*581*	*627*	*679*	*687*	716	126
2017					*482*	*500*	*581*	*631*	*728*	770	161
2018						*441*	*445*	*465*	*444*	497	168
2019							*2 393*	*2 369*	*2 340*	2 418	421
2020								*818*	*796*	774	569
2021	*RSI* [1]								*583*	671	509
2022										572	528
Total										**8 493**	**2 670**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
2013	*–2*	*11*	*36*	*59*	*82*	*107*	*131*	*142*	*160*	168
2014		*–2*	*8*	*39*	*70*	*98*	*139*	*164*	*186*	206
2015			*0*	*85*	*185*	*308*	*452*	*549*	*612*	684
2016				*13*	*201*	*227*	*279*	*339*	*385*	451
2017					*–2*	*18*	*47*	*122*	*216*	328
2018						*–1*	*21*	*71*	*124*	189
2019							*209*	*492*	*662*	905
2020								*10*	*28*	67
2021	*RSI* [1]								*4*	57
2022										0
Total										**3 055**
All liabilities before 2013										3 415
Liabilities for claims and claim adjustment expenses, net of reinsurance										**8 853**

[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
Liability, non-proportional (RSI[1])	*1.0%*	*7.7%*	*7.0%*	*9.3%*	*10.3%*	*10.1%*	*7.8%*	*5.4%*	*6.9%*	*3.5%*

[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 2013 include reserves for historic US Asbestos and Environmental losses. The increases in the incurred losses across accident years in reporting year 2022 are driven by inflation increases where appropriate.

Property & Casualty Reinsurance – Accident & Health

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	**thereof IBNR**
2013	*337*	*345*	*332*	*322*	*315*	*313*	*308*	*296*	*292*	291	23
2014		*296*	*328*	*321*	*310*	*299*	*298*	*283*	*281*	283	38
2015			*425*	*422*	*401*	*391*	*382*	*363*	*358*	354	33
2016				*583*	*617*	*613*	*578*	*573*	*554*	548	92
2017					*726*	*760*	*722*	*713*	*693*	687	122
2018						*717*	*804*	*800*	*772*	766	95
2019							*793*	*784*	*771*	746	108
2020								*882*	*874*	836	150
2021	*RSI* [1]								*797*	775	225
2022										938	516
Total										**6 224**	**1 402**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
2013	*53*	*135*	*175*	*198*	*211*	*219*	*225*	*230*	*235*	237
2014		*30*	*99*	*140*	*167*	*185*	*200*	*207*	*212*	216
2015			*59*	*131*	*183*	*215*	*234*	*247*	*258*	264
2016				*71*	*172*	*264*	*319*	*349*	*366*	382
2017					*94*	*229*	*329*	*387*	*422*	452
2018						*96*	*308*	*448*	*524*	566
2019							*110*	*323*	*450*	525
2020								*116*	*362*	482
2021	*RSI* [1]								*128*	341
2022										121
Total										**3 586**
All liabilities before 2013										2 428
Liabilities for claims and claim adjustment expenses, net of reinsurance										**5 066**

[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])	*14.3%*	*24.9%*	*15.5%*	*9.3%*	*5.4%*	*3.8%*	*2.6%*	*1.7%*	*1.6%*	*0.7%*

[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 2012 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. The reporting year 2022 has been adjusted for inflation increases where appropriate.

Property & Casualty Reinsurance – Motor, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	**thereof IBNR**
2013	*1 500*	*1 477*	*1 482*	*1 457*	*1 451*	*1 446*	*1 446*	*1 447*	*1 448*	1 445	4
2014		*1 945*	*1 910*	*1 909*	*1 892*	*1 882*	*1 880*	*1 878*	*1 879*	1 880	–1
2015			*1 862*	*1 854*	*1 857*	*1 860*	*1 860*	*1 866*	*1 870*	1 870	15
2016				*2 384*	*2 498*	*2 543*	*2 545*	*2 549*	*2 559*	2 564	17
2017					*2 294*	*2 311*	*2 297*	*2 307*	*2 316*	2 328	46
2018						*1 978*	*2 011*	*1 988*	*1 983*	1 992	75
2019							*1 974*	*1 950*	*1 980*	1 984	145
2020								*1 804*	*1 851*	1 864	256
2021	*RSI* [1]								*1 858*	1 964	434
2022										1 891	939
Total										**19 782**	**1 930**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
2013	*559*	*1 132*	*1 307*	*1 352*	*1 381*	*1 396*	*1 405*	*1 413*	*1 418*	1 422
2014		*728*	*1 436*	*1 674*	*1 749*	*1 783*	*1 803*	*1 814*	*1 820*	1 823
2015			*777*	*1 393*	*1 627*	*1 726*	*1 769*	*1 793*	*1 808*	1 816
2016				*789*	*1 745*	*2 080*	*2 255*	*2 355*	*2 418*	2 454
2017					*731*	*1 463*	*1 787*	*1 956*	*2 069*	2 144
2018						*599*	*1 287*	*1 525*	*1 665*	1 764
2019							*638*	*1 246*	*1 491*	1 638
2020								*593*	*1 140*	1 379
2021	*RSI* [1]								*630*	1 233
2022										670
Total										**16 343**
All liabilities before 2013										287
Liabilities for claims and claim adjustment expenses, net of reinsurance										**3 726**

[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])	*34.3%*	*33.8%*	*12.7%*	*5.8%*	*3.3%*	*1.8%*	*0.9%*	*0.4%*	*0.3%*	*0.3%*

[1] Unaudited

The increase in the incurred losses from accident years 2013 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 2021 in reporting year 2022 are driven by US business and inflation increases where appropriate.

Property & Casualty Reinsurance – Motor, non-proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	**thereof IBNR**
2013	414	435	438	423	410	415	414	420	421	424	58
2014		392	424	420	418	412	393	390	385	393	49
2015			374	395	429	427	439	438	436	445	64
2016				452	563	529	524	513	498	513	85
2017					556	584	574	583	576	593	115
2018						470	508	515	506	536	119
2019							1 098	1 110	1 095	1 096	161
2020								496	501	513	255
2021	RSI [1]								518	544	313
2022										558	429
Total										**5 615**	**1 648**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
2013	6	81	143	188	213	239	255	269	275	281
2014		4	58	102	141	183	211	230	243	254
2015			-1	33	90	155	200	228	258	280
2016				8	63	124	177	236	266	293
2017					8	58	125	199	236	286
2018						4	35	95	141	187
2019							83	274	444	566
2020								3	41	81
2021	RSI [1]								9	66
2022										2
Total										**2 296**
All liabilities before 2013										2 657
Liabilities for claims and claim adjustment expenses, net of reinsurance										**5 976**

[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%	11.0%	12.0%	11.1%	8.8%	6.8%	5.2%	3.9%	2.1%	1.4%

[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. The increases in the incurred losses across accident years in reporting year 2022 are driven by inflation increases where appropriate.

Property & Casualty Reinsurance – Specialty

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year										
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	**thereof IBNR**
2013	*1 046*	*974*	*937*	*903*	*894*	*872*	*860*	*864*	*863*	863	11
2014		*1 062*	*1 049*	*954*	*929*	*915*	*919*	*901*	*892*	903	14
2015			*1 200*	*1 175*	*1 159*	*1 150*	*1 148*	*1 169*	*1 170*	1 181	24
2016				*1 243*	*1 230*	*1 184*	*1 186*	*1 171*	*1 161*	1 178	42
2017					*1 573*	*1 491*	*1 362*	*1 330*	*1 345*	1 360	67
2018						*1 592*	*1 680*	*1 646*	*1 560*	1 605	100
2019							*1 761*	*1 930*	*2 037*	2 144	292
2020								*1 909*	*1 945*	1 868	463
2021	*RSI* [1]								*1 837*	1 821	825
2022										2 238	1 688
Total										**15 161**	**3 526**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
2013	*138*	*396*	*572*	*678*	*730*	*766*	*788*	*801*	*806*	812
2014		*165*	*389*	*561*	*656*	*712*	*749*	*771*	*780*	794
2015			*129*	*373*	*668*	*825*	*922*	*975*	*1 004*	1 029
2016				*137*	*460*	*698*	*861*	*947*	*992*	1 027
2017					*177*	*564*	*838*	*998*	*1 069*	1 127
2018						*178*	*623*	*926*	*1 077*	1 192
2019							*271*	*705*	*1 046*	1 293
2020								*306*	*707*	1 003
2021	*RSI* [1]								*205*	524
2022										191
Total										**8 992**
All liabilities before 2013										532
Liabilities for claims and claim adjustment expenses, net of reinsurance										**6 701**

[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])	*13.0%*	*24.2%*	*19.4%*	*11.8%*	*6.7%*	*4.2%*	*2.6%*	*1.5%*	*1.1%*	*0.7%*

[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. The increases in the incurred losses across accident years in reporting year 2022 are driven by inflation increases where appropriate.

Corporate Solutions

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions	Reporting year											
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	**thereof IBNR**	**Cumulative number of reported claims (in nominals)**
2013	*1 583*	*1 562*	*1 493*	*1 408*	*1 406*	*1 396*	*1 369*	*1 382*	*1 409*	1 407	56	26 646
2014		*1 809*	*1 751*	*1 681*	*1 686*	*1 658*	*1 587*	*1 567*	*1 572*	1 557	104	21 912
2015			*1 865*	*2 035*	*2 100*	*2 071*	*1 888*	*1 852*	*1 884*	1 858	98	18 989
2016				*1 985*	*2 071*	*2 111*	*2 099*	*2 093*	*2 101*	2 130	172	18 332
2017					*2 981*	*3 207*	*2 958*	*2 980*	*2 943*	2 927	193	21 314
2018						*2 652*	*2 567*	*2 600*	*2 573*	2 601	294	27 044
2019							*2 746*	*2 593*	*2 579*	2 598	365	22 750
2020								*3 307*	*2 796*	2 708	622	18 106
2021	*RSI* [1]								*2 576*	2 473	610	14 369
2022										2 838	1 455	10 232
Total										**23 097**	**3 969**	**199 694**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
2013	*270*	*663*	*928*	*1 082*	*1 150*	*1 225*	*1 272*	*1 299*	*1 317*	1 321
2014		*268*	*817*	*1 104*	*1 245*	*1 335*	*1 432*	*1 451*	*1 481*	1 497
2015			*348*	*894*	*1 285*	*1 482*	*1 616*	*1 704*	*1 726*	1 734
2016				*366*	*1 123*	*1 371*	*1 636*	*1 709*	*1 819*	2 031
2017					*378*	*1 491*	*2 093*	*2 346*	*2 523*	2 604
2018						*409*	*1 398*	*1 866*	*2 056*	2 322
2019							*518*	*1 208*	*1 479*	1 698
2020								*568*	*1 244*	1 595
2021	*RSI* [1]								*325*	1 042
2022										362
Total										**16 206**
All liabilities before 2013										455
Liabilities for claims and claim adjustment expenses, net of reinsurance										**7 346**

[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])	*16.8%*	*31.6%*	*16.5%*	*9.6%*	*6.3%*	*4.8%*	*3.9%*	*1.4%*	*1.2%*	*0.3%*

[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 2022, 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 236). 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	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**	**thereof IBNR**	**Cumulative number of reported claims (in nominals)**
2013	*450*	*442*	*441*	*407*	*406*	*408*	*430*	*430*	*423*	428	11	13 519
2014		*441*	*402*	*383*	*384*	*406*	*428*	*435*	*432*	438	14	15 387
2015			*377*	*407*	*394*	*395*	*423*	*432*	*425*	432	13	17 855
2016				*395*	*409*	*396*	*424*	*438*	*429*	433	41	15 664
2017					*403*	*409*	*429*	*450*	*429*	429	46	18 793
2018						*374*	*405*	*419*	*414*	408	76	19 049
2019							*348*	*425*	*377*	369	92	16 723
2020								*162*	*130*	136	39	8 184
2021	*RSI* [1]								*177*	184	99	8 343
2022										1 302	629	2 036
Total										**4 559**	**1 060**	**135 553**

[1] Unaudited

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

USD millions	Reporting year									
Accident year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
2013	*34*	*113*	*172*	*228*	*265*	*290*	*310*	*329*	*343*	355
2014		*30*	*100*	*183*	*240*	*274*	*300*	*324*	*343*	356
2015			*33*	*98*	*174*	*220*	*255*	*288*	*310*	327
2016				*12*	*80*	*147*	*196*	*236*	*264*	285
2017					*11*	*69*	*150*	*216*	*254*	281
2018						*11*	*69*	*150*	*198*	226
2019							*11*	*73*	*138*	178
2020								*4*	*30*	68
2021	*RSI* [1]								*4*	35
2022										4
Total										**2 115**
All liabilities before 2013										321
Liabilities for claims and claim adjustment expenses, net of reinsurance										**2 765**

[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])	*3.9%*	*16.2%*	*18.8%*	*12.3%*	*8.2%*	*6.4%*	*5.0%*	*4.2%*	*3.1%*	*2.8%*

[1] Unaudited

The decrease in incurred losses from accident year 2019 is due to decrease in volume of disability business written in Australia. The increase in incurred losses in accident year 2022 is due to acquisition of in-force group disability business in Continental 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	2022
Net outstanding liabilities	
Property & Casualty Reinsurance	
Property	11 804
Liability, proportional	13 389
Liability, non-proportional	8 853
Accident & Health	5 066
Motor, proportional	3 726
Motor, non-proportional	5 976
Specialty	6 701
Corporate Solutions	7 346
Life & Health Reinsurance, long tail	2 765
Total net undiscounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	65 626
Discounting impact on (Life & Health Reinsurance) short duration contracts	–266
Impact of acquisition accounting	–340
Total net discounted outstanding liabilities excluding other short duration contract lines and before unallocated reinsurance recoverable	65 020
Other short duration contract lines	3 456
Total net discounted outstanding short duration liabilities	**68 476**
Allocated reinsurance recoverables on unpaid claims:	
Property & Casualty Reinsurance	
Property	931
Liability, proportional	241
Liability, non-proportional	194
Accident & Health	203
Motor, proportional	54
Motor, non-proportional	183
Specialty	99
Corporate Solutions	4 928
Consolidation	–3 930
Impact of acquisition accounting	–56
Other short duration contract lines	554
Total short duration reinsurance recoverable on outstanding liabilities	**3 401**
Exclusions:	
Unallocated claim adjustment expenses	1 216
Long duration contracts	12 325
Total other reconciling items	**13 541**
Total unpaid claims and claim adjustment expenses	**85 418**

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	2021	**2022**
Carrying amount of discounted claims	1 103	1 562
Aggregate amount of the discount	–249	–266
Interest accretion[1]	29	27
Range of interest rates	3.1–3.2%	0.5–3.3%

[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:

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
Opening balance as of 1 January	2 576	4 901	426	327	8 230
Deferred	5 367	543	738	208	6 856
Effect of acquisitions/disposals and retrocessions		–38			–38
Amortisation	–5 359	–538	–679	–122	–6 698
Effect of foreign currency translation and other changes	–46	–150	–5	–7	–208
Closing balance	2 538	4 718	480	406	8 142

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**

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	2021	**2022**
Opening balance as of 1 January	928	836
Effect of acquisitions/disposals and retrocessions	–7	0
Amortisation	–131	–100
Interest accrued on unamortised PVFP	42	38
Effect of change in unrealised gains/losses	5	29
Effect of foreign currency translation	–1	–9
Closing balance	836	**794**

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	2021	2022
Fixed income securities	1 787	1 951
Equity securities	133	57
Policy loans, mortgages and other loans	132	183
Investment real estate	246	251
Short-term investments	19	106
Other current investments	141	136
Share in earnings of equity-accounted investees	806	−44
Cash and cash equivalents		42
Net result from deposit-accounted contracts	20	102
Deposits with ceding companies	482	472
Gross investment income	3 766	**3 256**
Investment expenses	−391	−381
Interest charged for funds held	−2	−6
Net investment income – non-participating business	3 373	**2 869**

Dividends received from investments accounted for using the equity method were USD 236 million and USD 214 million for 2021 and 2022, respectively.

Share in earnings of equity-accounted investees included impairments of the carrying amount of equity-accounted investees of nil and USD 18 million for 2021 and 2022, 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	2021	2022
Fixed income securities available-for-sale:		
Gross realised gains	599	222
Gross realised losses	−271	−204
Other-than-temporary impairments	−1	−60
Net realised investment gains/losses on equity securities	47	−347
Change in net unrealised investment gains/losses on equity securities	−33	−271
Net realised investment gains/losses on trading securities	−53	−208
Change in net unrealised investment gains/losses on trading securities	−102	−67
Net realised/unrealised gains/losses on other investments	365	705
Net realised/unrealised gains/losses on insurance-related activities	20	132
Foreign exchange gains/losses	−34	95
Net realised investment gains/losses – non-participating business	537	**−3**

Net realised/unrealised gains/losses on insurance-related activities included impairments of USD 9 million and USD 10 million for 2021 and 2022, 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 gains of USD 63 million and to losses of USD 43 million for 31 December 2021 and 2022, respectively, originating from equity securities.

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

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

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

USD millions	2021	**2022**
Balance as of 1 January	46	44
Credit losses for which an other-than-temporary impairment was not previously recognised	5	54
Reductions for securities sold during the period	–10	–46
Increase of credit losses for which an other-than-temporary impairment has been recognised previously, when the Group does not intend to sell, or more likely than not will not be required to sell before recovery	5	10
Impact of increase in cash flows expected to be collected	–1	–1
Impact of foreign exchange movements	–1	–1
Balance as of 31 December	44	**60**

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:

2021 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Other-than-temporary impairments recognised in other comprehensive income	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	14 969	360	–98		15 231
US Agency securitised products	2 981	46	–25		3 002
States of the United States and political subdivisions of the states	1 306	203			1 509
Canada	2 874	120	–12		2 982
United Kingdom	4 158	367	–62		4 463
Germany	2 758	275	–23		3 010
France	2 403	205	–49		2 559
China	2 286	26			2 312
Other	10 603	376	–114		10 865
Total	44 338	1 978	–383		45 933
Corporate debt securities	33 952	2 019	–220	–1	35 750
Mortgage- and asset-backed securities	3 940	91	–22	–7	4 002
Fixed income securities available-for-sale	82 230	4 088	–625	–8	85 685

2022 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Other-than-temporary impairments recognised in other comprehensive income	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	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
Canada	2 443	17	–129		2 331
United Kingdom	3 451	4	–1 149		2 306
Germany	2 173	18	–437		1 754
France	2 243	10	–692		1 561
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

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

Unrealised losses on securities available-for-sale

The following table shows the fair value and unrealised losses of the Group's fixed income securities, aggregated by investment category and length of time that individual securities were in a continuous unrealised loss position as of 31 December:

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

2022 USD millions	Less than 12 months Fair value	Less than 12 months Unrealised losses	12 months or more Fair value	12 months or more Unrealised losses	Total Fair value	Total Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	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
Canada	734	32	1 481	97	2 215	129
United Kingdom	1 171	462	1 128	687	2 299	1 149
Germany	1 018	227	416	210	1 434	437
France	678	233	632	459	1 310	692
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**

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 2021 and 2022, USD 25 004 million and USD 25 231 million, respectively, of fixed income securities available-for-sale were callable.

USD millions	2021 Amortised cost or cost	2021 Estimated fair value	2022 Amortised cost or cost	2022 Estimated fair value
Due in one year or less	6 119	6 142	13 324	13 079
Due after one year through five years	34 770	35 028	28 616	26 979
Due after five years through ten years	13 612	14 171	13 691	12 195
Due after ten years	24 668	27 216	23 725	18 769
Mortgage- and asset-backed securities with no fixed maturity	3 061	3 128	3 282	3 067
Total fixed income securities available-for-sale	82 230	85 685	**82 638**	**74 089**

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	2021	**2022**
Debt securities issued by governments and government agencies	1 272	462
Mortgage- and asset-backed securities	28	22
Fixed income securities trading – non-participating business	1 300	**484**
Equity securities at fair value through earnings – non-participating business	3 978	**2 114**

Investments held for unit-linked business

As of 31 December 2021 and 31 December 2022, the carrying amounts of investments held for unit-linked business consist of equity securities at fair value through earnings of USD 468 million and USD 330 million, respectively.

Mortgage, policy and other loans, and investment real estate

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

USD millions	2021 Carrying value	2021 Fair value	2022 Carrying value	2022 Fair value
Policy loans	34	34	32	32
Mortgage loans	1 645	1 672	1 712	1 569
Other loans	2 264	2 302	2 599	2 443
Investment real estate	2 871	5 544	2 931	5 738

Depreciation expense related to investment real estate was USD 63 million and USD 79 million for 2021 and 2022, respectively. Accumulated depreciation on investment real estate totalled USD 786 million and USD 829 million as of 31 December 2021 and 2022, respectively. Investment real estate held by the Group includes residential and commercial investment real estate.

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

Maturity of lessor cash flows

As of 31 December 2022, the total undiscounted cash flows to be received from operating leases of investment real estate for the next five years and thereafter were as follows:

USD millions	Operating leases
Less than one year	214
Between one year and two years	194
Between two years and three years	166
Between three years and four years	138
Between four years and five years	115
After five years	436
Total cash flows	1 263

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 2021 and 2022 was USD 25 million and USD 21 million, respectively.

Other financial assets and liabilities by measurement category

As of 31 December 2021 and 2022, "Other invested assets" and "Accrued expenses and other liabilities" by measurement category were as follows:

2021 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	164					164
Reverse repurchase agreements			2 336			2 336
Securities lending/borrowing	1 333		122			1 455
Equity-accounted investments	398			2 717		3 115
Other	376	1 470	963			2 809
Other invested assets	2 271	1 470	3 421	2 717	0	9 879
Accrued expenses and other liabilities						
Derivative financial instruments	435					435
Repurchase agreements			11			11
Securities lending	1 334		86			1 420
Securities sold short	1 032					1 032
Other			1 512		2 390	3 902
Accrued expenses and other liabilities	2 801	0	1 609	0	2 390	6 800

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**

[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:

2021 USD millions	Gross amounts of recognised financial assets	Amounts set-off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – assets	1 371	–1 207	164		164
Reverse repurchase agreements	4 398	–2 062	2 336	–2 336	0
Securities borrowing	260	–138	122	–122	0
Total	6 029	–3 407	2 622	–2 458	164

2021 USD millions	Gross amounts of recognised financial liabilities	Amounts set-off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – liabilities	–1 550	1 115	–435	181	–254
Repurchase agreements	–1 778	1 767	–11	11	0
Securities lending	–1 853	433	–1 420	1 351	–69
Total	–5 181	3 315	–1 866	1 543	–323

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**

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

Assets pledged
As of 31 December 2021 and 2022, investments with a carrying value of USD 5 974 million and USD 4 492 million, respectively, were on deposit with regulatory agencies in accordance with local requirements, of which USD 244 million and USD 469 million, respectively, were cash and cash equivalents. As of 31 December 2021 and 2022, investments with a carrying value of USD 15 006 million and USD 14 361 million, respectively, were placed on deposit or pledged to secure certain reinsurance liabilities, including pledged investments in subsidiaries, of which USD 119 million and USD 50 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 2021 and 2022, investments with a carrying value of USD 463 million and USD 482 million, respectively, were placed on deposit or pledged to secure certain derivative and debt liabilities.

As of 31 December 2021 and 2022, securities of USD 16 775 million and USD 14 396 million, respectively, were transferred to third parties under securities lending transactions and repurchase agreements on a fully collateralised basis. Corresponding liabilities of USD 1 431 million and USD 1 260 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 2021 and 2022, a real estate portfolio with a carrying value of USD 190 million and USD 187 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 2021 and 2022, the fair value of the equity securities, government and corporate debt securities received as collateral was USD 5 494 million and USD 4 527 million, respectively. Of this, the amount that was sold or repledged as of 31 December 2021 and 2022 was USD 1 002 million and USD 1 281 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 2021 and 2022, 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.

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

2022 USD millions	Remaining contractual maturity of the agreements Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	Total
Repurchase agreements					
Debt securities issued by governments and government agencies	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**

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

8 Fair value disclosures

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

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

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

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

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

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

The fair values of assets are adjusted to incorporate the counterparty risk of non-performance. Similarly, the fair values of liabilities reflect the risk of non-performance of the Group, captured by the Group's credit spread. These valuation adjustments from assets and liabilities measured at fair value using significant unobservable inputs are recognised in net realised gains and losses. For 2022, these adjustments were not material. Whenever the underlying assets or liabilities are reported in a specific business segment, the valuation adjustment is allocated accordingly. Valuation adjustments not attributable to any business segment are reported in Group items.

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

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

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

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

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

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

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

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

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

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

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

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

Assets and liabilities measured at fair value on a recurring basis

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

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

[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.

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.

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:

2021 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	1 183	232	588	2 003	−341	−98	−439
Realised/unrealised gains/losses:							
Included in net income[1]	1	−93	−7	−99	121	16	137
Included in other comprehensive income[2]	−42			−42		−1	−1
Purchases	202	3	81	286			0
Issuances				0	−86		−86
Sales	−2	−3	−147	−152	1		1
Settlements	−20	−53		−73	33		33
Transfers into level 3				0			0
Transfers out of level 3			−8	−8			0
Impact of foreign exchange movements	−10			−10			0
Closing balance as of 31 December	1 312	86	507	1 905	−272	−83	−355

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

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". Fair value changes from liabilities for life and health policy benefits are reported in "Credit risk of financial liabilities at fair value option".

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

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

USD millions	2021	**2022**
Gains/losses included in net income for the period	38	240
Whereof change in unrealised gains/losses relating to assets and liabilities still held at the reporting date	–12	108

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	2021 Fair value	**2022** Fair value	Valuation technique	Unobservable input	Range (weighted average[1])
Assets					
Corporate debt securities	1 312	**1 205**			
Infrastructure loans	779	802	Discounted cash flow model	Valuation spread	84—530 bps (220 bps)
Private placement corporate debt	491	367	Corporate spread matrix	Credit spread	54—289 bps (148 bps)
Private placement credit tenant leases	36	29	Discounted cash flow model	Illiquidity premium	125—150 bps (146 bps)
Derivative equity contracts	60	0			
OTC equity option referencing correlated equity indices	60				
Other derivative contracts	26	**55**			
Weather contracts	8	41	Proprietary option model	Risk margin	14–22% (16.9%)
				Correlation	–14 to –13% (–13.2%)
				Volatility (power/gas)	130–135% (130.6%)
				Volatility (temperature)	3–131 (26) HDD/CDD/CAT[2]
				Index value (temperature)	10–1 792 (274) HDD/CDD/CAT[2]
Liabilities					
Derivative equity contracts	–9	**0**			
OTC equity option referencing correlated equity indices	–9				
Other derivative contracts and liabilities for life and health policy benefits	–344	**–247**			
Variable annuity and fair valued GMDB contracts	–261	–187	Discounted cash flow model	Risk margin	4% (n/a)
				Volatility	16.1%–61.8%
				Lapse	1–10%
				Mortality improvement	0–1.5%
				Withdrawal rate (GMDB contracts)	20–97%
Weather contracts	–66	–41	Proprietary option model	Risk margin	6–22% (14.1%)
				Correlation	–39 to –7% (–11.6%)
				Volatility (power/gas)	77–140% (127.5%)
				Volatility (temperature)	0–247 (59) HDD/CDD/CAT[2]
				Index value (temperature)	1–3 093 (902) HDD/CDD/CAT[2]

[1] Unobservable inputs were weighted by the relative fair value of the instruments. For Derivative equity contracts, the weighted average correlation is derived by computing an absolute piecewise correlation impact and is not weighted by the relative fair value.
[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 input used in the fair value measurement of the Group's OTC equity option referencing correlated equity indices is correlation. Where the Group is long correlation risk, a significant increase (decrease) in this input in isolation would have resulted in a significantly higher (lower) fair value measurement. Where the Group is short correlation risk, a significant increase (decrease) in this input in isolation would have resulted in a significantly lower (higher) fair value measurement.

The significant unobservable inputs used in the fair value measurement of the Group's 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.

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

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

USD millions	2021 Fair value	2022 Fair value	Unfunded commitments	Redemption frequency (if currently eligible)	Redemption notice period
Private equity funds	1 302	1 489	607	non-redeemable	n/a
Real estate funds	2	1	15	non-redeemable	n/a
Private equity direct	165	249	90	non-redeemable	n/a
Hedge funds	1	1		redeemable[1]	90 days[2]
Total	1 470	**1 740**	**712**		

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

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

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

USD millions	2021	**2022**
Assets		
Other invested assets	9 879	8 794
of which at fair value pursuant to the fair value option	398	435
Funds held by ceding companies	12 532	13 929
of which at fair value pursuant to the fair value option	172	164
Liabilities		
Liabilities for life and health policy benefits	–22 196	–20 925
of which at fair value pursuant to the fair value option	–83	–69

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	2021	**2022**
Other invested assets	54	54
Funds held by ceding companies		–8
Liabilities for life and health policy benefits	16	15
Total	70	**61**

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:

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

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**

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:

2021 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	24 144	433	–408	25
Foreign exchange contracts	29 157	304	–222	82
Equity contracts	16 067	573	–312	261
Credit contracts	9 007	5	–93	–88
Other contracts	9 091	28	–263	–235
Total	87 466	1 343	–1 298	45
Derivatives designated as hedging instruments				
Interest rate contracts	3 730	1	–53	–52
Foreign exchange contracts	19 057	27	–199	–172
Total	22 787	28	–252	–224
Total derivative financial instruments	110 253	1 371	–1 550	–179
Amount offset				
Where a right of set-off exists		–788	788	
Due to cash collateral		–419	327	
Total net amount of derivative financial instruments		164	–435	–271

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**

The notional amounts of derivative financial instruments give an indication of the Group’s volume of derivative activity. The fair value assets are included in “Other invested assets” and “Investments for unit-linked business”. The fair value liabilities are included in “Accrued expenses and other liabilities”. The fair value amounts that were not offset were nil as of 31 December 2021 and 2022.

Non-hedging activities

The Group primarily uses derivative financial instruments for risk management and trading strategies. Gains and losses of derivative financial instruments not designated as hedging instruments are recorded in "Net realised investment gains/losses — non-participating business" and "Net investment result — unit-linked 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	2021	**2022**
Derivatives not designated as hedging instruments		
Interest rate contracts	52	–20
Foreign exchange contracts	–907	–1 047
Equity contracts	–209	71
Credit contracts	–43	15
Other contracts	162	220
Total gains/losses recognised in income	–945	**–761**

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 2021 and 2022, 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:

		2021		**2022**
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	537	–571	–3	–570
Foreign exchange contracts				
Gains/losses on derivatives	678		1 137	
Gains/losses on hedged items	–678		–1 137	
Amounts excluded from the effectiveness assessment				
Interest rate contracts				
Gains/losses on derivatives		–64		–306
Gains/losses on hedged items		65		292

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:

		2021		**2022**
USD millions	Carrying value	Cumulative basis adjustment	Carrying value	Cumulative basis adjustment
Assets				
Fixed income securities available-for-sale	15 248		15 970	
Liabilities				
Short-term debt	–562	1	–783	16
Long-term debt	–3 090	54	–1 852	331

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 2021 and 2022, the Group recorded an accumulated net unrealised foreign currency remeasurement gain of USD 594 million and USD 1 260 million, respectively, in "Other comprehensive income – Foreign currency translation". These offset translation gains and losses on the hedged net investment.

Maximum potential loss
In consideration of the rights of set-off and the qualifying master netting arrangements with various counterparties, the maximum potential loss as of 31 December 2021 and 2022 was approximately USD 583 million and USD 484 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 63 million and USD 54 million as of 31 December 2021 and 2022, respectively. For derivative financial instruments containing credit risk-related contingent features, the Group posted collateral of USD 36 million and USD 34 million as of 31 December 2021 and 2022, respectively. In the event of a reduction of the Group's credit rating to below investment grade, a fair value of USD 19 million additional collateral would have had to be posted as of 31 December 2022. The total equals the amount needed to settle the instruments immediately as of 31 December 2022.

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). Interest expense is classified accordingly.

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

USD millions	2021	2022
Senior financial debt	300	784
Senior operational debt		2
Subordinated financial debt	562	
Short-term debt	862	**786**
Senior financial debt	2 578	1 336
Senior operational debt	99	100
Subordinated financial debt	5 290	6 730
Subordinated operational debt	1 859	1 588
Contingent capital instruments classified as financial debt	497	498
Long-term debt	10 323	**10 252**
Total carrying value	11 185	**11 038**
Total fair value	13 465	**11 090**

As of 31 December 2021 and 2022, operational debt, ie debt related to operational leverage, amounted to USD 2 billion (thereof USD 1.9 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	2021	2022
Due in 2023	851	
Due in 2024	2 264	2 254
Due in 2025	1 083	1 673
Due in 2026	461	333
Due in 2027	271	1 015
Due after 2027	5 393	4 977
Total carrying value	10 323	**10 252**

Senior long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Book value in USD millions
2024	EMTN	2014	CHF	250	1.00%	258
2026	Senior notes[1]	1996	USD	291	7.00%	321
2027	EMTN	2015	CHF	250	0.75%	246
2030	Senior notes[1]	2000	USD	156	7.75%	195
2042	Senior notes	2012	USD	322	4.25%	316
Various	Payment undertaking agreements	Various	USD	92	Various	100
Total senior long-term debt as of 31 December 2022						**1 436**
Total senior long-term debt as of 31 December 2021						2 677

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

Subordinated long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	First call in	Book value in USD millions
2035	Subordinated fixed rate resettable callable loan note	2020	SGD	350	3.13%	2025	260
2044	Subordinated fixed rate resettable callable loan note	2014	USD	500	4.50%	2024	499
2049	Subordinated fixed rate reset step-up callable loan note	2019	USD	1000	5.00%	2029	993
2050	Subordinated fixed rate reset step-up callable loan note	2019	EUR	750	2.53%	2030	796
2050	Subordinated fixed-to-floating rate non step-up callable loan note	2022	USD	700	5.75%	2025	698
2052	Subordinated fixed rate reset step-up callable loan note	2020	EUR	800	2.71%	2032	635
2052	Subordinated fixed-to-floating rate non step-up callable note	2022	USD	800	5.63%	2027	769
2056	Subordinated fixed rate non step-up callable loan note	2022	USD	400	6.05%	2031	371
2057	Subordinated private placement (amortising, limited recourse)	2007	GBP	1 320	6.39%		1 588
Perpetual	Perpetual subordinated fixed-to-floating rate callable loan note	2015	EUR	750	2.60%	2025	712
Perpetual	Perpetual subordinated fixed spread callable note	2019	USD	1000	4.25%	2024	997
Total subordinated long-term debt as of 31 December 2022							**8 318**
Total subordinated long-term debt as of 31 December 2021							7 149

Contingent capital instruments classified as long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Book value in USD millions
2024	Senior unsecured exchangeable instrument with issuer stock settlement	2018	USD	500	3.25%	498
Total contingent capital instruments classified as long-term debt as of 31 December 2022						**498**
Total contingent capital instruments classified as long-term debt as of 31 December 2021						497

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	2021	**2022**
Senior financial debt	88	48[1]
Senior operational debt	3	3
Subordinated financial debt	227	340
Subordinated operational debt	119	105
Contingent capital instruments classified as financial debt	17	18
Total	454	**514**

[1] Includes a gain on debt extinguishment of USD 22 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 102.2844 (adjusted from the initial exchange price of USD 115.2593). The exchange price is subject to further adjustment in certain circumstances described in the conditions of the notes. The issuer may elect to settle a noteholder-initiated exchange in cash or SRL shares. To economically offset the settlement of a noteholder-initiated exchange, SRL purchased matching call options on SRL shares with a portion of the proceeds. Consequently, no new SRL shares will be issued upon a noteholder-initiated exchange. Assuming that all of the notes are exchanged at the request of noteholders, and subject to further adjustments to the exchange price as described in the conditions of the notes, 4 888 331 registered shares of SRL would have to be delivered to noteholders. Both the noteholder-initiated exchange option and the matching call options are accounted as equity within these financial statements.

Long-term debt issued in 2022

In May 2022, Swiss Re Ltd issued subordinated fixed-to-floating rate non step-up callable loan notes with an aggregate face value of USD 700 million by fully drawing on the subordinated debt facility established in November 2015. The notes have a scheduled maturity date on 15 August 2050 and a first optional redemption date on 15 August 2025. Swiss Re Ltd pays a fixed coupon of 5.75% per annum until the first optional redemption date.

In May 2022, Swiss Re Ltd issued subordinated fixed rate non step-up callable loan notes with an aggregate face value of USD 400 million by fully drawing on the subordinated debt facility established in April 2016. The notes have a scheduled maturity date on 15 February 2056 and a first optional redemption date on 15 February 2031. Swiss Re Ltd pays a fixed coupon of 6.05% per annum.

In May 2022, Swiss Re Ltd issued subordinated fixed-to-floating rate non step-up callable notes with an aggregate face value of USD 800 million by fully drawing on the subordinated debt facility established in June 2016. The notes have a scheduled maturity date on 15 August 2052 and a first optional redemption date on 15 August 2027. Swiss Re Ltd pays a fixed coupon of 5.625% per annum until the first optional redemption date.

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	2021	**2022**
Operating lease right-of-use assets	426	396
Operating lease liabilities	478	441

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	2021	**2022**
Less than one year	86	71
Between one year and two years	74	65
Between two years and three years	66	55
Between three years and four years	53	52
Between four years and five years	48	46
After five years	209	227
Total undiscounted cash flows	536	**516**
Less imputed interest	–58	–75
Total lease liability	478	**441**

As of 31 December 2022, undiscounted sublease cash flows over the next nine years were USD 45 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 2021 and 2022 was 2.1% and 2.8%, respectively. The weighted average remaining lease term for operating leases as of 31 December 2021 and 2022 was 9.9 years and 10.7 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	2021	**2022**
Fixed operating lease cost	85	80
Other lease cost[1]	5	5
Total operating lease cost	90	**85**
Less sublease income from operating leases	–6	–4
Total lease cost	84	**81**

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

Other information
For the year ended 31 December 2021 and 2022, cash paid for amounts included in the measurement of operating lease liabilities was USD 89 million and USD 82 million, respectively. Right-of-use assets obtained in exchange for new operating lease liabilities in 2021 and 2022 were USD 51 million and USD 72 million, respectively.

13 Earnings per share

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

USD millions (except share data)	2021	2022
Basic earnings per share		
Net income	1 437	480
Non-controlling interests		–8
Net income attributable to common shareholders	1 437	**472**
Weighted average common shares outstanding	288 952 702	289 001 080
Net income per share in USD	4.97	**1.63**
Net income per share in CHF[1]	4.52	**1.63**
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	14 072 893	13 763 879
Change in average number of shares due to employee options	506 107	323 651
Diluted earnings per share		
Net income assuming debt conversion and exercise of options	1 451	**486**
Weighted average common shares outstanding	303 531 702	303 088 610
Net income per share in USD	4.78	**1.60**
Net income per share in CHF[1]	4.35	**1.60**

[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 are declared in Swiss francs. During the years ended 31 December 2021 and 2022, the parent company of the Group (Swiss Re Ltd) paid dividends per share of CHF 5.90, 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	2021	2022
Current taxes	268	372
Deferred taxes	126	–201
Income tax expense	394	**171**

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	2021	2022
Income tax at the Swiss statutory tax rate of 19.7%	361	128
Increase (decrease) in the income tax charge resulting from:		
Foreign income taxed at different rates	81	24
Impact of foreign exchange movements	–45	–33
Tax exempt income/dividends received deduction	29	6
Change in valuation allowance	–42	21
Non-deductible expenses	42	36
Change in statutory rate	–10	–1
Other income based taxes	13	–1
Change in liability for unrecognised tax benefits including interest and penalties	–3	21
Basis differences in subsidiaries	–25	13
Intra-entity transfers	–12	–2
Other, net[1]	5	–41
Total	394	**171**

[1] Other, net includes tax return to tax provision and other prior year adjustments from various jurisdictions in 2021 and 2022 of USD –2 million and USD –73 million, respectively.

For the year ended 31 December 2022, the Group reported a tax expense of USD 171 million on a pre-tax income of USD 651 million, compared to an expense of USD 394 million on a pre-tax income of USD 1 831 million for 2021. This translates into an effective tax rate in the current and prior-year reporting periods of 26.3% and 21.5%, respectively.

For the year ended 31 December 2022, the rate was 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. The tax rate in the year ended 31 December 2021 was largely driven by profits earned in higher tax jurisdictions and tax charges from non-deductible expenses, partially offset by tax benefits from the release of valuation allowance on deferred tax assets and foreign currency translation differences between statutory and US GAAP accounts.

Deferred and other non-current taxes

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

USD millions	2021	2022
Deferred tax assets		
Benefit on loss carryforwards	3 155	3 091
Technical provisions	1 001	1 281
Unearned premium reserves	375	378
Deferred acquisition costs	106	134
Present value of future profits	149	133
Investment valuations in income	257	475
Unrealised gains in income	121	
Unrealised gains on investments	15	1 825
Income accrued/deferred	156	198
Fixed assets	143	149
Pension provisions	221	182
Currency translation adjustments	436	463
Other	411	342
Gross deferred tax asset	6 546	8 651
Valuation allowance	–388	–361
Unrecognised tax benefits offsetting benefits on loss carryforwards	–27	–6
Total deferred tax assets	6 131	**8 284**
Deferred tax liabilities		
Technical provisions	–2 029	–1 366
Unearned premium reserves	–164	–143
Deferred acquisition costs	–1 115	–1 155
Present value of future profits	–146	–140
Investment valuations in income	–448	–987
Unrealised gains in income	–12	–340
Unrealised gains on investments	–736	–7
Income accrued/deferred	–169	–164
Pension provisions	–179	–191
Foreign exchange provisions	–667	–679
Currency translation adjustments	–216	–260
Other	–349	–396
Total deferred tax liabilities	–6 230	**–5 828**
Liability for unrecognised tax benefits including interest and penalties	–154	–183
Total deferred and other non-current tax liabilities	–6 384	**–6 011**

The Group has not recognised deferred tax liabilities or additional foreign withholding tax liabilities for undistributed earnings of its foreign subsidiaries that arose in 2022 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 2022, the US GAAP undistributed earnings of these subsidiaries was USD 5.6 billion. Due to the differences in US GAAP and local tax basis of undistributed earnings, it is not practicable to estimate the amount of additional tax liability if these earnings were not indefinitely reinvested.

In 2022, USD 2 million was distributed from subsidiaries where the earnings were planned to be permanently reinvested. No foreign tax withholding liability arose from this distribution and minimal shareholder tax liability resulted due to the participation tax exemption rules.

As of 31 December 2022, the Group had USD 14 761 million net operating tax loss carryforwards, expiring as follows: USD 6 million in 2023, USD 796 million in 2024, USD 378 million in 2025, USD 736 million in 2026, USD 7 877 million in 2027 and beyond and USD 4 968 million never expire.

As of 31 December 2022, the Group had capital loss carryforwards of USD 551 million, expiring as follows: USD 12 million in 2025, USD 2 million in 2027 and beyond and USD 537 million that never expire.

For the year ended 31 December 2022, net operating tax losses of USD 3 142 million and net capital tax losses of USD 95 million were utilised.

The valuation allowance for deferred tax assets as of 31 December 2021 and 2022 was USD 388 million and USD 361 million, respectively. The net change in the valuation allowance for the year ended 31 December 2022 was a decrease of USD 27 million, with a USD 17 million decrease driven by balance sheet translation recorded in equity, a USD 21 million net increase included as a tax charge in income tax from operations and a USD 31 million decrease from entities disposed in 2022 and included in the net assets sold.

The valuation allowance as of 31 December 2022 was primarily related to loss carryforwards and intangible assets that, in the judgment of management, are not more likely than not to be realised. In assessing the realisability of deferred tax assets, management considers whether it is more likely than not that some or all of the deferred tax assets will not be realised. The ultimate realisation of deferred tax assets depends on the generation of future taxable income during the periods in which those temporary differences are deductible.

Management considers projections of future taxable income and tax planning strategies in making this assessment. Based on the level of historical taxable income and projections of future taxable income over the periods for which the deferred tax assets are deductible, management believes that 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 2022. 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 2022 will be allocated entirely to income tax from operations.

Income taxes paid in 2021 and 2022 were USD 258 million and USD 419 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	2021	**2022**
Balance as of 1 January	150	143
Additions based on tax positions related to current year	11	14
Additions based on tax positions related to prior years	14	14
Reductions for tax positions of current year	–2	–2
Reductions for tax positions of prior years	–20	–5
Statute expiration	–2	
Settlements	–1	–7
Other (including foreign currency translation)	–7	–5
Balance as of 31 December	143	**152**

As of 31 December 2021 and 2022, the amount of gross unrecognised tax benefits within the tabular reconciliation that, if recognised, would affect the effective tax rate were approximately USD 143 million and USD 152 million, respectively.

Interest and penalties related to unrecognised tax benefits are recorded in income tax expense/benefit. For the years ended 31 December 2021 and 2022, such expenses were USD 1 million and USD 4 million respectively, offset with a USD 5 million payment in 2022. For the years ended 31 December 2021 and 2022, USD 38 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 2022 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 2022 presented in the table above excludes accrued interest and penalties (USD 37 million).

During the year, certain tax positions and audits in Canada, Malaysia, 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 108 million over the next 12 months due to settlements or expiration of statutes. It is also reasonably possible that balance could increase as a result of proposed adjustments by taxing authorities. Quantification of an estimated range of increases cannot be made at this time.

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

Australia	2017–2022	Korea	2017–2022
Brazil	2014; 2017–2022	Luxembourg	2017–2022
Canada	2016–2022	Malaysia	2021–2022
China	2012–2022	Mexico	2017–2022
Colombia	2017–2022	Netherlands	2016–2022
Denmark	2018–2022	New Zealand	2016–2022
France	2019–2022	Nigeria	2020–2022
Germany	2017–2022	Singapore	2017–2022
Hong Kong	2016–2022	Slovakia	2017–2022
India	2004; 2010–2022	South Africa	2016–2022
Ireland	2016–2022	Spain	2018–2022
Israel	2017–2022	Switzerland	2017–2022
Italy	2017–2022	United Kingdom	2020–2022
Japan	2016–2022	United States	2017–2022

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.

2021 USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	4 750	2 234	360	7 344
Service cost	136	7	4	147
Interest cost		35	4	39
Amendments				0
Actuarial gains/losses	2	–76	–20	–94
Benefits paid	–40	–79	–17	–136
Employee contribution	38			38
Effect of settlement, curtailment and termination	–146			–146
Effect of foreign currency translation	–142	–49	–6	–197
Benefit obligation as of 31 December	4 598	2 072	325	6 995
Fair value of plan assets as of 1 January	4 702	2 316	0	7 018
Actual return on plan assets	346	–31		315
Company contribution	112	15	17	144
Benefits paid	–40	–79	–17	–136
Employee contribution	38			38
Effect of settlement, curtailment and termination	–146			–146
Effect of foreign currency translation	–140	–40		–180
Fair value of plan assets as of 31 December	4 872	2 181	0	7 053
Funded status	274	109	–325	58

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**

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

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

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**

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

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

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**

Components of net periodic benefit cost

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

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

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**

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

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

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**

The accumulated benefit obligation (the current value of accrued benefits excluding future salary increases) for pension benefits was USD 6 631 million and USD 5 108 million as of 31 December 2021 and 2022, 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	2021	**2022**
Projected benefit obligation	523	805
Fair value of plan assets	368	659

USD millions	2021	**2022**
Accumulated benefit obligation	517	798
Fair value of plan assets	367	656

Principal actuarial assumptions

	Swiss plan		Foreign plans weighted average		Other benefits weighted average	
	2021	**2022**	2021	**2022**	2021	**2022**
Assumptions used to determine obligations at the end of the year						
Discount rate	0.2%	2.1%	2.1%	4.7%	1.5%	3.5%
Rate of compensation increase	1.8%	2.0%	2.9%	3.1%	2.1%	3.0%
Interest crediting rate	1.5%	2.8%				
Assumptions used to determine net periodic pension costs for the year ended						
Discount rate	0.0%	0.2%	1.6%	2.1%	1.1%	1.5%
Expected long-term return on plan assets	2.8%	2.5%	2.2%	2.6%		
Rate of compensation increase	1.8%	1.8%	2.6%	2.9%	2.1%	2.1%
Interest crediting rate	1.8%	1.5%				
Assumed medical trend rates at year end						
Medical trend – initial rate					4.4%	4.8%
Medical trend – ultimate rate					3.7%	3.7%
Year that the rate reaches the ultimate trend rate					2024	2025

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 2021 and 2022 was as follows:

	Swiss plan allocation			Foreign plans allocation		
	2021	**2022**	**Target allocation**	2021	**2022**	**Target allocation**
Asset category						
Equity securities	28%	25%	23%	5%	5%	5%
Fixed income securities	36%	36%	45%	68%	64%	85%
Real estate	18%	22%	24%	0%	1%	1%
Other	18%	17%	8%	27%	30%	9%
Total	100%	**100%**	**100%**	100%	**100%**	**100%**

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

Equity securities include Swiss Re shares of USD 3 million (0.04% of total plan assets) and USD 2 million (0.04% of total plan assets) as of 31 December 2021 and 2022, 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				
2021 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	93	1 346			1 439
Corporate debt securities		1 635	9		1 644
RMBS/CMBS/ABS		132			132
Equity securities	1 347	111			1 458
Real estate	25		882		907
Other assets		106		1 248	1 354
Cash and cash equivalents	119				119
Total plan assets	1 584	3 330	891	1 248	7 053

	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**

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:

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

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**

Expected contributions and estimated future benefit payments

The employer contributions expected to be made in 2023 to the defined benefit pension plans are USD 133 million and to the post-retirement benefit plans are USD 17 million.

As of 31 December 2022, 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
2023	297	88	17	402
2024	282	79	18	379
2025	276	81	18	375
2026	268	82	18	368
2027	256	83	17	356
Years 2028–2032	1 162	424	84	1 670

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 2021 and 2022 was USD 87 million and USD 88 million, respectively.

16 Share-based payments

As of 31 December 2021 and 2022, 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 61 million and USD 59 million in 2021 and 2022, respectively. The related tax benefit was USD 12 million and USD 12 million, respectively.

Restricted shares
The Group granted 74 018 and 37 704 restricted shares to selected employees in 2021 and 2022, respectively. In addition, 45 315 and 41 855 shares were delivered to members of the Board of Directors during 2021 and 2022, 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 2022 is as follows:

	Weighted average grant date fair value in CHF[1]	Number of shares
Non-vested at 1 January	85	279 161
Granted	83	79 559
Forfeited	88	–1 353
Vested	89	–97 900
Outstanding as of 31 December	**83**	**259 467**

[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 2019, LPP 2020, LSP 2021 and LSP 2022 awards, an additional two-year holding period applies for all members of the Group EC and other key executives. At grant date, LPP 2019 awards were split equally into two underlying components of Performance Share Units (PSUs). The ROE PSUs are measured against a return on equity performance condition and will vest within a range of 0-100%. The TSR PSUs are based on relative total shareholder return, measured against a pre-defined group of peers and will vest within a range of 0-200%. At grant date, LPP 2020 was split equally into three underlying components of PSUs. The ENW PSUs, being the third component, are measured against ENW growth performance and will vest within a range of 0-100%. 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), three separate performance-based components in the form of PSUs, similar to LPP 2020, each vesting within a range of 0-150%, or a mix of both non-performance and performance based components. Each SU is entitled to a dividend equivalent (equal value to actual Swiss Re dividends), 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 2019, LSP 2020 and LSP 2021. Risk-free rates range between 1.5% and 2.2%.

For the year ended 31 December 2022, the outstanding units were as follows:

ROE PSU	LPP 2019	LPP 2020	LSP 2021	LSP 2022
Non-vested at 1 January	286 158	200 391	118 032	
Granted				127 489
Forfeited	–4 987	–4 638	–2 049	–1 344
Vested	–281 171	–423	–1 455	–1 790
Outstanding as of 31 December	**0**	**195 330**	**114 528**	**124 355**
Grant date fair value in CHF	**78.22**	**78.81**	**74.20**	**69.44**

TSR PSU				
Non-vested at 1 January	275 596	328 153	213 007	
Granted				317 526
Forfeited	–4 802	–7 595	–3 698	–3 345
Vested	–270 794	–693	–2 625	–4 460
Outstanding as of 31 December	**0**	**319 865**	**206 684**	**309 721**
Grant date fair value in CHF	**81.25**	**48.12**	**53.67**	**67.57**

ENW PSU			
Non-vested at 1 January	185 545	114 611	
Granted			141 283
Forfeited	–4 293	–1 991	–1 490
Vested	–392	–1 413	–1 984
Outstanding as of 31 December	**180 860**	**111 207**	**137 809**
Grant date fair value in CHF	**85.17**	**74.20**	**69.44**

SU		
Non-vested at 1 January	307 779	
Granted	20 456	407 596
Forfeited	–12 423	–11 162
Vested		
Outstanding as of 31 December	**315 812**	**396 434**
Grant date fair value in CHF	**93.50**	**87.90**

Unrecognised compensation cost
As of 31 December 2022, the total unrecognised compensation cost (net of forfeitures) related to non-vested, share-based compensation awards was USD 85 million and the weighted average period over which that cost is expected to be recognised is 1.9 years.

The number of shares authorised for the Group's share-based payments to employees was 3 711 203 and 4 173 139 as of 31 December 2021 and 2022, 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 2021 and 2022, Swiss Re contributed USD 12 million and USD 15 million to the plans and authorised 199 569 and 228 499 shares as of 31 December 2021 and 2022, respectively.

17 Compensation, participations and loans of members of governing bodies

The disclosure requirements under Swiss law in respect of compensation and loans to the members of the Board of Directors and of the Group Executive Committee, as well as closely related persons, are detailed in the Compensation Report on pages 128–135 of the Financial Report of the Swiss Re Group.

The disclosure requirements under Swiss law in respect of participations of members of the Board of Directors and the Group Executive Committee, as well as closely related persons, are detailed on page 310–311 of the Annual Report of Swiss Re Ltd.

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 3 million (0.04% of total plan assets) and USD 2 million (0.03% of total plan assets) as of 31 December 2021 and 2022, respectively.

The total number of shares, options and related instruments held by members of the BoD and the Group EC and persons closely related to, amounts to less than 1% of the shares issued by Swiss Re Ltd.

None of the members of the Board of Directors and the Group EC has any significant business connection with Swiss Re Ltd or any of its Group companies. The Board member Susan L. Wagner is also a board member of BlackRock, Inc., which provides technology and asset management services to Swiss Re. The Board member Joachim Oechslin served on an interim basis as a member of the Executive Board of Credit Suisse Group AG in 2021 and continues to serve as a Senior Advisor to Credit Suisse Group AG. Swiss Re has a business relationship with Credit Suisse. It is also a credit provider, and a named dealer under Swiss Re's Debt Issuance Programme. The Board member Philip K. Ryan was a member of the Smithsonian National Board until October 2022 and is currently a member of the Advisory Board at the Smithsonian Tropical Research Institute. In November 2022, Swiss Re has made a donation of USD 1 million to the Smithsonian American Women's History Museum. The Smithsonian National Board, the Smithsonian Tropical Research Institute and the Smithsonian American Women's History Museum are part of the Smithsonian Institution, a museum, education and research complex.

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

USD millions	2021	**2022**
Share in earnings of equity-accounted investees	806	–44
Dividends received from equity-accounted investees	236	214

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 2022 were USD 1 962 million.

The Group has entered into various real estate construction contracts. The commitments under the contracts amount to USD 61 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 31.12.2022	Method of consolidation
Europe				
Germany				
Swiss Re Germany GmbH, Munich	EUR	45	100	f
Jersey				
Swiss Re Finance Holdings (Jersey) Limited, St Helier	GBP	0.0001	100	f
Swiss Re Finance Midco (Jersey) Limited, St Helier	GBP	0.000002	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	17 721	100	f
Swiss Re International SE, Luxembourg	USD	207	100	f
Ares ECSF XI (S) Holdings S.À R.L., Luxembourg	EUR	310	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 Principal Investments Company Ltd, Zurich	CHF	0.1	100	f
Swiss Re Reinsurance Holding Company Ltd, Zurich	CHF	0.1	100	f
Swiss Reinsurance Company Ltd, Zurich	CHF	34	100	f
Swiss Re Investments Holding Company Ltd, Zurich	CHF	0.1	100	f
Swiss Re Corporate Solutions Holding Company Ltd, Zurich	CHF	0.1	100	f
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 31.12.2022	Method of consolidation
Americas and Caribbean				
Brazil				
Swiss Re Brasil Resseguros S.A., Sao Paulo	BRL	472	100	f
Swiss Re Corporate Solutions Brasil Seguros S.A., Sao Paulo	BRL	318	60	f
Cayman Islands				
SRE HL PE 1 LP, George Town	EUR	395	99.8	f
SREH HL PE 1 LP, George Town	EUR	567	99.8	f
SRZ HL PE 1 LP, George Town	USD	441	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	314	100	f
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	393	99.8	f
SREH HL PE 1 (Master) LP, Wilmington	EUR	564	99.8	f
SRZ HL PE 1 (Master) LP, Wilmington	USD	439	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, Kansas City	USD	4	100	f
Westport Insurance Corporation, Jefferson City	USD	6	100	f
Wing Re Inc., Jefferson City	USD	0.3	100	f
Wing Re II Inc., Jefferson City	USD	0.3	100	f
Elips Life Insurance Company, Jefferson City	USD	0	100	f
Bermuda				
1997 Fund Ltd, Hamilton	USD	1 000	100	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 31.12.2022	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	669	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 (no significant equity investees in 2022)

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

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

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

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

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

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

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

Other
The Group did not provide financial or other support to any VIEs during 2022 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	2021	2022
Fixed income securities available-for-sale	3 362	2 006
Short-term investments	42	130
Cash and cash equivalents	77	84
Accrued investment income	29	26
Premiums and other receivables	22	64
Funds held by ceding companies	4	11
Deferred acquisition costs	7	8
Deferred tax assets	126	249
Other assets	19	20
Total assets	3 688	**2 598**
Unpaid claims and claim adjustment expenses	89	139
Unearned premiums	25	25
Funds held under reinsurance treaties	4	14
Reinsurance balances payable	24	21
Deferred and other non-current tax liabilities	109	248
Accrued expenses and other liabilities	7	6
Long-term debt	1 859	1 587
Total liabilities	2 117	**2 040**

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	2021	**2022**
Fixed income securities available-for-sale	1 465	1 671
Equity securities at fair value through earnings	114	64
Policy loans, mortgages and other loans	1 774	1 726
Other invested assets	3 190	3 082
Investments for unit-linked business	142	104
Total assets	6 685	**6 647**
Accrued expenses and other liabilities	35	35
Total liabilities	35	**35**

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:

			2021			**2022**
USD millions	Total assets	Total liabilities	Maximum exposure to loss[1]	Total assets	Total liabilities	Maximum exposure to loss[1]
Insurance-linked securitisations	837		855	893		987
Life and health funding vehicles	16		2 392	15		2 212
Swaps in trusts	60	35	–[2]	82	35	–[2]
Investment vehicles	3 244		3 244	3 049		3 049
Investment vehicles for unit-linked business	142			104		
Senior commercial mortgage and infrastructure loans	2 386		2 386	2 504		2 504
Total	6 685	35	–[2]	**6 647**	**35**	**–[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 2022, 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 significant accounting policies.

In our opinion, the accompanying consolidated financial statements (pages 190 to 291) present fairly, in all material respects, the financial position of the Group as of 31 December 2022, and the results of its operations and its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles and comply with Swiss law.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and in accordance with Swiss law and Swiss Auditing Standards (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 audit 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, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

VALUATION OF FIXED INCOME SECURITIES

Key Audit Matter

The Group has recorded $74,573 million of fixed income securities as of 31 December 2022. 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 $42,903 million as of 31 December 2022. 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 uncertainty and complexity of the mortality, morbidity,

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;

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.

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

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 $68,290 million as of 31 December 2022. Property and casualty reserves is included in the property and casualty related unpaid claims and claim adjustment expenses line item on the consolidated balance sheet.

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

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

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

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 $8,651 million (net of a valuation allowance of $361 million) as of 31 December 2022.

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

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

For further information on the Valuation of Deferred Tax Assets on Loss Carryforwards refer to the following**:**

- Note 1
- Note 14

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 entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the 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 entity 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 withing the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit of the Group. We remain solely responsible for our audit opinion.

We are required to communicate with the Board of Directors regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters, including any significant deficiencies, that we identified during 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 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 report thereon. Our opinion on the consolidated financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the 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 performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report. We have nothing to report in this regard.

Report on Other Legal and Regulatory Requirements

In accordance with article 728a para. 1 item 3 CO and 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, 15 March 2023

KPMG AG, Badenerstrasse 172, CH-8036 Zurich

Group financial years 2013–2022

USD millions	2013	2014	2015
Income statement			
Revenues			
Premiums earned	28 276	30 756	29 751
Fee income	542	506	463
Net investment income	4 735	4 992	4 236
Net realised investment gains/losses	3 325	1 059	1 220
Other revenues	24	34	44
Total revenues	36 902	37 347	35 714
Expenses			
Claims and claim adjustment expenses	–9 655	–10 577	–9 848
Life and health benefits	–9 581	–10 611	–9 080
Return credited to policyholders	–3 678	–1 541	–1 166
Acquisition costs	–4 895	–6 515	–6 419
Other operating costs and expenses	–4 268	–3 876	–3 882
Total expenses	–32 077	–33 120	–30 395
Income/loss before income tax expense/benefit	4 825	4 227	5 319
Income tax expense/benefit	–312	–658	–651
Net income/loss before attribution of non-controlling interests	4 513	3 569	4 668
Income/loss attributable to non-controlling interests	–2		–3
Net income/loss after attribution of non-controlling interests	4 511	3 569	4 665
Interest on contingent capital instruments, net of tax	–67	–69	–68
Net income/loss attributable to common shareholders	4 444	3 500	4 597
Balance sheet			
Assets			
Investments	150 075	143 987	137 810
Other assets	63 445	60 474	58 325
Assets held for sale			
Total assets	213 520	204 461	196 135
Liabilities			
Unpaid claims and claim adjustment expenses	61 484	57 954	55 518
Liabilities for life and health policy benefits	36 033	33 605	30 131
Unearned premiums	10 334	10 576	10 869
Other liabilities	57 970	53 670	55 033
Long-term debt	14 722	12 615	10 978
Liabilities held for sale			
Total liabilities	180 543	168 420	162 529
Shareholders' equity	32 952	35 930	33 517
Non-controlling interests	25	111	89
Total equity	32 977	36 041	33 606
Earnings per share in USD	12.97	10.23	13.44
Earnings per share in CHF	12.04	9.33	12.93

	2016	2017	2018	2019	2020	2021	**2022**
	32 691	33 119	33 875	37 974	40 321	42 467	**42 868**
	540	586	586	620	449	259	**250**
	4 740	4 702	5 077	5 175	3 503	3 395	**2 890**
	5 787	4 048	–2 530	5 515	–972	578	**–67**
	28	32	39	30	37	40	**57**
	43 786	42 487	37 047	49 314	43 338	46 739	**45 998**
	–12 564	–16 730	–14 855	–18 683	–19 838	–17 181	**–19 271**
	–10 859	–11 083	–11 769	–13 087	–13 929	–14 992	**–14 057**
	–5 099	–3 298	1 033	–4 633	1 760	–431	**–280**
	–6 928	–6 977	–6 919	–7 834	–8 236	–8 228	**–7 800**
	–3 964	–3 874	–3 987	–4 168	–4 185	–4 076	**–3 939**
	–39 414	–41 962	–36 497	–48 405	–44 428	–44 908	**–45 347**
	4 372	525	550	909	–1 090	1 831	**651**
	–749	–132	–69	–140	266	–394	**–171**
	3 623	393	481	769	–824	1 437	**480**
	3	5	–19	–42	–54		**–8**
	3 626	398	462	727	–878	1 437	**472**
	–68	–67	–41				
	3 558	331	421	727	–878	1 437	**472**
	155 016	161 897	147 302	103 746	120 693	116 586	**101 992**
	60 049	60 629	60 268	60 382	61 929	64 981	**68 684**
				74 439			
	215 065	222 526	207 570	238 567	182 622	181 567	**170 676**
	57 355	66 795	67 446	72 373	81 258	84 096	**85 418**
	41 176	42 561	39 593	19 836	22 456	22 196	**20 925**
	11 629	11 769	11 721	13 365	13 309	14 134	**14 747**
	59 402	56 959	51 581	23 232	26 757	27 140	**26 525**
	9 787	10 148	8 502	10 138	11 584	10 323	**10 252**
				68 586			
	179 349	188 232	178 843	207 530	155 364	157 889	**157 867**
	35 634	34 124	27 930	29 251	27 135	23 568	**12 699**
	82	170	797	1 786	123	110	**110**
	35 716	34 294	28 727	31 037	27 258	23 678	**12 809**
	10.72	1.03	1.37	2.46	–3.04	4.97	**1.63**
	10.55	1.02	1.34	2.46	–2.97	4.52	**1.63**

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 2022 amounted to CHF 1 295 million (2021: CHF 610 million).

Revenues were mainly driven by cash dividends from subsidiaries and affiliated companies of CHF 1 524 million, trademark licence fees of CHF 469 million, interest on loans to subsidiaries and affiliated companies of CHF 152 million, realised gains on derivative financial instruments of CHF 66 million and commitment fees of CHF 45 million.

Expenses were mainly driven by a valuation adjustment to the carrying amount of investments in subsidiaries and affiliated companies of CHF 286 million, administrative expenses of CHF 241 million, valuation adjustment on derivative financial instruments of CHF 200 million, interest on loans of CHF 170 million and realised loss on investments of CHF 71 million.

Assets
Total assets increased from CHF 23 207 million as of 31 December 2021 to CHF 24 543 million as of 31 December 2022.

Current assets increased by CHF 459 million to CHF 4 081 million as of 31 December 2022, mainly driven by an increase in loans to subsidiaries and affiliated companies.

Non-current assets increased by CHF 877 million to CHF 20 462 million as of 31 December 2022, mainly driven by an increase in loans to subsidiaries and affiliated companies due to a drawdown of subordinated funding facilities by Swiss Reinsurance Company Ltd.

Liabilities
Total liabilities increased from CHF 1 817 million as of 31 December 2021 to CHF 3 557 million as of 31 December 2022.

Short-term liabilities increased by CHF 669 million to CHF 1 183 million as of 31 December 2022, mainly driven by an increase in loans from subsidiaries and affiliated companies.

Long-term liabilities increased by CHF 1 071 million to CHF 2 374 million as of 31 December 2022, mainly due to a drawdown of uncommitted subordinated funding facilities.

Shareholders' equity
Shareholders' equity decreased from CHF 21 390 million as of 31 December 2021 to CHF 20 986 million as of 31 December 2022, mainly due to dividends to shareholders of CHF 1 705 million partially offset by net income of CHF 1 295 million.

Note on risk factors
Macro-economic events or developments including increased volatility and/or disruption in global markets and high inflation rates as well as losses associated with insured claim events, particularly natural catastrophes, pandemics or man-made disasters, including the ongoing war in Ukraine, could adversely affect the Company's results of 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	2021	2022
Revenues			
Investment income	2	1 075	**1 803**
Trademark licence fees		407	**469**
Other revenues		5	**28**
Total revenues		1 487	**2 300**
Expenses			
Administrative expenses	3	–256	**–241**
Investment expenses	2	–500	**–727**
Other expenses		–107	**–11**
Total expenses		–863	**–979**
Income before income tax expense		624	**1 321**
Income tax expense		–14	**–26**
Net income		610	**1 295**

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	2021	2022
Current assets			
Cash and cash equivalents		0	**1**
Short-term investments	4, 5	55	**52**
Receivables from subsidiaries and affiliated companies	5	1 581	**1 483**
Other receivables and accrued income		14	**124**
Loans to subsidiaries and affiliated companies		1 972	**2 421**
Total current assets		3 622	**4 081**
Non-current assets			
Loans to subsidiaries and affiliated companies		745	**1 907**
Investments in subsidiaries and affiliated companies	6	18 840	**18 555**
Total non-current assets		19 585	**20 462**
Total assets		23 207	**24 543**

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

Liabilities and shareholders' equity

CHF millions	Notes	2021	2022
Liabilities			
Short-term liabilities			
Payables to subsidiaries and affiliated companies		158	**337**
Other liabilities and accrued expenses		128	**106**
Loans from subsidiaries and affiliated companies		228	**740**
Total short-term liabilities		514	**1 183**
Long-term liabilities			
Provisions		71	**154**
Debt	8	1 232	**2 220**
Total long-term liabilities		1 303	**2 374**
Total liabilities		1 817	**3 557**
Shareholders' equity	9		
Share capital	11	32	**32**
Other legal capital reserves		5	**6**
Legal profit reserves		4 311	**4 311**
Reserve for own shares (indirectly held by subsidiaries)		18	**18**
Voluntary profit reserves		17 491	**16 396**
Retained earnings brought forward		–	**–**
Net income for the financial year		610	**1 295**
Own shares (directly held by the Company)	10	–1 077	**–1 072**
Total shareholders' equity		21 390	**20 986**
Total liabilities and shareholders' equity		23 207	**24 543**

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 2022 comprises the accounting period from 1 January 2022 to 31 December 2022.

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 2021, the Group streamlined its legal entity structure. The direct subsidiaries Swiss Re Corporate Solutions Ltd and Swiss Re Life Capital Ltd transferred the rights and obligations of all assets and liabilities to the direct subsidiary Swiss Reinsurance Company Ltd in the form of a merger with an accounting effective date of 1 January 2021. As a result, the Company increased the carrying amount of the investment in Swiss Reinsurance Company Ltd by the carrying amounts of the investments in Swiss Re Corporate Solutions Ltd and Swiss Re Life Capital Ltd. The merger 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 15 March 2023. This is the date on which the financial statements are available to be issued.

2 Investment income and expenses

CHF millions	2021	2022
Cash dividends from subsidiaries and affiliated companies	868	**1 524**
Realised gains on sale of investments	82	**66**
Valuation adjustments on derivative financial instruments	7	**1**
Income from short-term investments	0	**1**
Income from loans to subsidiaries and affiliated companies	51	**152**
Investment management income	0	**0**
Other interest revenues	67	**59**
Investment income	1 075	**1 803**

CHF millions	2021	2022
Realised losses on sale of investments	92	**71**
Valuation adjustments on derivative financial instruments	39	**200**
Valuation adjustments on investments in subsidiaries and affiliated companies	328	**286**
Investment management expenses	0	**–**
Other interest expenses	41	**170**
Investment expenses	500	**727**

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 2022, no securities were lent to Group companies or third parties under securities lending agreements (2021: a carrying amount of CHF 2 million).

5 Derivative financial instruments

As of 31 December 2022, the Company's assets for derivative financial instruments carried at market value amounted to CHF 57 million (2021: CHF 55 million).

To secure the net position of certain derivative financial assets and liabilities, securities with a carrying amount of CHF 35 million (2021: CHF 53 million) were deposited in favour of Group companies.

6 Investments in subsidiaries and affiliated companies

As of 31 December 2022 and 2021, Swiss Re Ltd held directly the following investments in subsidiaries and affiliated companies

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

As of 31 December 2021[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
Swiss Re Finance (UK) plc	London	GBP	1.0	100	100

[1] The subsidiaries Swiss Re Life Capital Ltd and Swiss Re Corporate Solutions Ltd were merged with Swiss Reinsurance Company Ltd as of 1 January 2021.

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 285 to 287 in the notes to the Group's 2022 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. As of 31 December 2022, CHF 1 758 million (2021: CHF 0 million) were issued under the facilities.

The following tables provide an overview of the subordinated debt facilities as of 31 December 2022 and 2021, respectively:

As of 31 December 2022	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	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	–	2.76%	4.625%	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.

As of 31 December 2021	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	–	3.53%	5.75%	2025	2050
Dated subordinated fixed rate callable notes facility	2016	USD	400	–	3.92%	6.05%	2031	2056
Dated subordinated fixed-to-floating rate callable notes facility	2016	USD	800	–	3.67%	5.625%	2027	2052
Perpetual subordinated fixed spread callable notes facility	2017	USD	750	–	2.77%	4.625%	2022	Perpetual[2]

[1] Until first optional redemption date.
[2] First optional redemption date in 2022 and every five years thereafter.

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 receives an annual interest payment from Swiss Reinsurance Company Ltd.

The following tables provide an overview of the subordinated funding facilities as of 31 December 2022 and 2021, respectively:

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

As of 31 December 2021	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	–	5.80%	2.22%	3.58%	2030
Subordinated funding facility	Swiss Reinsurance Company Ltd	2016	USD	400	–	6.10%	2.13%	3.97%	2036
Subordinated funding facility	Swiss Reinsurance Company Ltd	2016	USD	800	–	5.68%	1.95%	3.73%	2032

8 Debt

In 2022, the Company issued notes under the subordinated debt facilities in a total amount of CHF 1 758 million. As of 31 December 2022, Swiss Re Ltd had outstanding external debt of CHF 2 220 million (2021: CHF 456 million), whereof CHF 370 million (2021: CHF 0 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	462
Subordinated debt	2022	USD	700	5.75%	2025[1]	648
Subordinated debt	2022	USD	800	5.63%	2027[1]	740
Subordinated debt	2022	USD	400	6.05%	2031[1]	370

[1] First call date

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 1.1.2022	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**

CHF millions	Share capital	Legal capital reserves[1]	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 1.1.2021	32	192	4 314	16	17 431	–	1 573	–1 073	22 485
Allocation of net income					1 573		–1 573		–
Allocation of legal capital reserves		–192			192				–
Dividend for the financial year 2020					–1 705				–1 705
Net income for the financial year							610		610
Other movements in own shares		5	–3	2				–4	–
Shareholders' equity 31.12.2021	32	5	4 311	18	17 491	–	610	–1 077	21 390

[1] At the 157th Annual General Meeting held on 16 April 2021, the Group's shareholders authorised the Board of Directors to reclassify CHF 192 million legal reserves from capital contributions into voluntary profit reserves.

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

Number of own shares	2021	2022
Own shares held by subsidiaries	*178 571*	***199 569***
Own shares held by Swiss Re Ltd directly	*28 342 336*	***28 344 543***
Opening balance own shares	28 520 907	**28 544 112**
Purchase of own shares[1]	500 669	**521 690**
Sale of own shares[2]	–477 464	**–556 566**
Own shares as of 31 December	28 544 112	**28 509 236**

[1] Purchased at average price of CHF 80.26 (2021: CHF 86.19).
[2] Sold at average price of CHF 81.85 (2021: CHF 90.24).

11 Major shareholders

As of 31 December 2022, 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 84 to 85 of the Group's 2022 Financial Report.

In addition, Swiss Re Ltd held, as of 31 December 2022, directly and indirectly 28 509 236 (2021: 28 544 112) own shares, representing 8.98% (2021: 8.99%) of voting rights and share capital. Swiss Re Ltd cannot exercise the voting rights of own shares held.

12 Release of undisclosed reserves

In 2022 and 2021, 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 2022, the Company has guaranteed CHF 1 770 million (2021: CHF 1 841 million), of which no amount was utilised as of 31 December 2022 and 2021, respectively.

14 Share ownership, options and related instruments of governing bodies

This section is in line with Articles 663c para. 3 and 959c para. 2 cif. 11 of the Swiss Code of Obligations as applicable for the reporting year 2022, which require disclosure of shareholdings, options and related instruments held by members of the Board of Directors and Group Executive Committee (Group EC) at the end of the reporting year and of share-based compensation for the members of the Board of Directors during the reporting year. Further disclosures in respect of shareholding and compensation for the members of the Board of Directors and the Group EC, and persons closely related, are detailed in the Compensation Report on pages 116 to 144 of the Financial Report of the Swiss Re Group.

Share ownership

The number of shares held as of 31 December were:

Members of the Group EC	2021	**2022**
Christian Mumenthaler, Group Chief Executive Officer	93 414	95 631
Urs Baertschi, CEO Reinsurance EMEA / Regional President EMEA	3 989	5 391
Andreas Berger, CEO Corporate Solutions	213	1 072
John R. Dacey, Group Chief Financial Officer	39 234	40 386
Cathy Desquesses, Group CHRO & Head Corporate Services	0	3 269
Guido Fürer, Group Chief Investment Officer	64 888	66 274
Hermann Geiger, Group Chief Legal Officer	53 175	54 127
Russell Higginbotham, former CEO Reinsurance Asia/Regional President Asia[1]	15 966	n/a
Jonathan Isherwood, CEO Reinsurance Americas/Regional President Americas	55 880	56 935
Pravina Ladva, Group Chief Digital & Technology Officer	n/a	1 210
Thierry Léger, Group Chief Underwriting Officer	64 891	66 000
Paul Murray, CEO Reinsurance Asia Pacific/Regional President Asia Pacific[2]	n/a	10 447
Moses Ojeisekhoba, CEO Reinsurance	47 001	48 110
Patrick Raaflaub, Group Chief Risk Officer	32 611	33 720
Total	471 262	**482 572**

[1] The number of shares held on 31 March 2022 when Russell Higginbotham stepped down from the Group EC was 16 546.
[2] Includes 1 373 shares held by a related party.

Members of the Board of Directors	**2021**	**2022**
Sergio P. Ermotti, Chairman, Chair Governance & Nomination Committee	13 006	31 203
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	39 655	43 703
Raymond K.F. Ch'ien, former member[1]	16 221	n/a
Karen Gavan, member[2]	6 344	8 020
Joachim Oechslin, member, Chair Finance and Risk Committee	2 895	5 264
Deanna Ong, member	2 672	4 271
Jay Ralph, member	6 582	8 139
Joerg Reinhardt, member	28 831	30 292
Philip K. Ryan, member	21 883	23 944
Sir Paul Tucker, member	8 757	10 314
Jacques de Vaucleroy, member, Chair Compensation Committee	10 046	12 465
Susan L. Wagner, member, Chair Investment Committee	20 162	22 897
Larry Zimpleman, member	5 502	7 178
Total	182 556	**207 690**

[1] Did not stand for re-election at the AGM of 13 April 2022.
[2] Shareholdings include 2 500 American Depository Receipts, equivalent to 625 shares.

Share-based compensation

The share-based compensation for the members of the Board of Directors for 2021 and 2022 was:

	2021		2022	
Members of the Board of Directors	Fees in blocked shares[1] (CHF thousands)	Number of shares[2]	**Fees in blocked shares[1] (CHF thousands)**	**Number of shares[2]**
Sergio P. Ermotti, Chairman, Chair Governance & Nomination Committee	1 043	12 132	1 520	18 197
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	330	4 142	338	4 048
Raymond K.F. Ch'ien, former member[3]	130	1 632	43	500
Karen Gavan, member	140	1 757	140	1 676
Joachim Oechslin, member, Chair Finance and Risk Committee	130	1 632	197	2 369
Deanna Ong, member	120	1 506	133	1 599
Jay Ralph, member	130	1 632	130	1 557
Joerg Reinhardt, member	122	1 531	122	1 461
Philip K. Ryan, member	240	3 012	173	2 061
Sir Paul Tucker, member	130	1 632	130	1 557
Jacques de Vaucleroy, member, Chair Compensation Committee	202	2 535	202	2 419
Susan L. Wagner, member, Chair Investment Committee	242	3 037	229	2 735
Larry Zimpleman, member	140	1 757	140	1 676
Total[4]	3 099	37 937	**3 498**	**41 855**

[1] Represents the portion (40%) of the total fees for the members of the Board of Directors that is delivered in Swiss Re Ltd shares, with a four-year blocking period.
[2] The number of shares is calculated by dividing the portion (40%) of the total fees with the average closing price of the shares on the SIX Swiss Exchange during the ten trading days preceding the AGM less the amount of any dividend resolved by such AGM.
[3] Did not stand for re-election at the AGM of 13 April 2022.
[4] Total figures might contain rounding differences.

Vested options

For the years ended 31 December 2021 and 2022, neither the members of the Board of Directors nor the members of the Group EC held any vested options granted or allocated by Swiss Re.

Proposal for allocation of disposable profit

The Board of Directors proposes to the Annual General Meeting to be held in Zurich on 12 April 2023 to approve the following allocations and dividend payment:

CHF millions	2021	2022
Retained earnings brought forward	–	**–**
Net income for the financial year	610	**1 295**
Disposable profit	610	**1 295**
Allocation to voluntary profit reserves	–610	**–1 295**
Retained earnings after allocation	–	**–**

CHF millions	2021	2022
Voluntary profit reserves brought forward	17 491	**16 396**
Allocation from retained earnings	610	**1 295**
Ordinary dividend payment out of voluntary profit reserves	–1 705[1]	**-1 711[2]**
Voluntary profit reserves after allocation and dividend payment	16 396	**15 980**

[1] Since the Board of Directors' proposal for allocation of disposable profit, included in the Annual Report 2021, the number of registered shares eligible for dividend, at the dividend payment date of 21 April 2022, increased due to the transfer of 76 637 shares for employee participation purposes from not eligible to eligible for dividend. This resulted in a higher dividend of CHF 0.5 million, compared to the Board of Directors' proposal, and lower voluntary profit reserves by the same amount.
[2] The Board of Directors' proposal to the Annual General Meeting of 12 April 2023 is based on the number of shares eligible for dividend as of 31 December 2022. The actual dividend payment will depend on the number of shares eligible for dividend and a published exchange rate as of 13 April 2023.
In order to comply with the Swiss Code of Obligations, the proposed ordinary dividend payment out of voluntary profit reserves, translated into CHF on 13 April 2023, 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 6.40 per share will be paid on 18 April 2023 from voluntary profit reserves.

Share structure per 31 December 2022	Number of registered shares	Nominal capital in CHF
Eligible for dividend[1]	288 988 070	**28 898 807**
Not eligible for dividend	28 509 236	**2 850 924**
Total shares issued	317 497 306	**31 749 731**

[1] The Board of Directors' proposal to the Annual General Meeting of 12 April 2023 is based on the number of shares eligible for dividend as of 31 December 2022. The actual dividend payment will depend on the number of shares eligible for dividend and a published exchange rate as of 13 April 2023.
In order to comply with the Swiss Code of Obligations, the proposed ordinary dividend payment out of voluntary profit reserves, translated into CHF on 13 April 2023, must not exceed CHF 3 500 million.

Zurich, 15 March 2023

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 2022, 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 301 to 312) 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 SUBSIDIARES 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 AFFILIATED COMPANIES

Key Audit Matter

The Company has recorded investments in subsidiaries and affiliated companies of CHF 18,555 million and a valuation adjustment on these investments of CHF 286 million as of 31 December 2022. 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.

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

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.
— 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.

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.

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, 15 March 2023

KPMG AG, Badenerstrasse 172, CH-8036 Zurich

General information

Headquartered in Zurich, Switzerland, Swiss Re has operations across the globe. Our success is built on our solid client relationships, capital strength and risk knowledge company approach. We make the world more resilient.

Glossary

Acquisition costs	That portion of an insurance premium which represents the cost of obtaining the insurance business: it includes the intermediaries' commission, the company's sales expense and other related expenses.
Asset-backed securities	Securities backed by notes or receivables against financial assets such as auto loans, credit cards, royalties, student loans and insurance profits.
Asset-liability management (ALM)	Management of an insurance business in a way that coordinates investment-related decisions on assets and liabilities. Specifically, the ongoing process of formulating, implementing, monitoring and revising investment strategies related to assets and liabilities in an attempt to achieve financial objectives, while managing exposure to financial market risks, such as interest rates, credit spreads and currency movements.
Aviation insurance	Insurance of accident and liability risks, as well as hull damage, connected with the operation of aircraft.
Benchmark investment result	Includes changes in the economic value of liabilities (as represented by the replicating portfolio) as a result of movements in risk-free discount rates, the passage of time, changes in credit spreads, changes in equity prices or changes in the economic value of embedded options and guarantees.
Book value per share	The ratio of ordinary shareholders' equity to the number of common shares entitled to dividend.
Business interruption	Insurance covering the loss of earnings resulting from, and occurring after, destruction of property; also known as "loss of profits" or "business income protection insurance".
Capacity	Maximum amount of risk that can be accepted in insurance. Capacity also refers to the amount of insurance coverage allocated to a particular policyholder or in the marketplace in general.
Catastrophe bonds	Securities used by insurance and reinsurance companies to transfer peak insurance risks, including natural catastrophes, to the capital markets. Catastrophe bonds help to spread peak exposures (see insurance-linked securities).
Cession	Insurance that is reinsured: the passing of the insurer's risks to the reinsurer against payment of a premium. The insurer is referred to as the ceding company or cedent.
Claim	Demand by an insured for indemnity under an insurance contract.
Claims and benefits	Claims and benefits in the EVM income statement represent the present value of all estimated future claims and benefits on contracts written during the year. Changes in estimates of claims and benefits payable on contracts written in prior years are reflected in previous years' business profit, along with changes in other underwriting cash flows relating to previous years.
Claims handling	Activities in connection with the investigation, settlement and payment of claims from the time of their occurrence until settlement.
Claims incurred and claim adjustment expenses	All claims payments plus the adjustment in the outstanding claims provision of a business year and claim adjustment expenses.
Claims ratio	Sum of claims paid and change in the provisions for unpaid claims and claim adjustment expenses in relation to premiums earned.
Coinsurance	Arrangement by which a number of insurers and/or reinsurers share a risk.
Combined ratio	The ratio is a combination of the non-life claims ratio and the expense ratio.

Commission — Remuneration paid by the insurer to its agents, brokers or intermediaries, or by the reinsurer to the insurer, for costs in connection with the acquisition and administration of insurance business.

Commutation — The termination of a reinsurance contract by agreement of the parties on the basis of one or more lump sum payments by the reinsurer which extinguish its liability under the contract. The payment made by the reinsurer commonly relates to incurred losses under the contract.

Cover — Insurance and reinsurance protection of one or more specific risk exposures based on a contractual agreement.

Credit insurance — Insurance against financial losses sustained through the failure, for commercial reasons, of policyholders' clients to pay for goods or services supplied to them.

Credit spreads — Difference in yield between a fixed income security which has default risk and one which is considered to be risk-free, such as U.S. Treasury securities.

Directors' and officers' liability insurance (D&O) — Liability insurance for directors and officers of an entity, providing cover for their personal legal liability towards shareholders, creditors, employees and others arising from wrongful acts such as errors and omissions.

Disability insurance — Insurance against the incapacity to exercise a profession as a result of sickness or other infirmity.

Earnings per share (EPS) — Portion of a company's profit allocated to each outstanding share of common stock. Earnings per share is calculated by dividing net income by the weighted average number of common shares outstanding during the period.

Economic net worth — Economic net worth (ENW) is defined as the difference between the market-consistent value of assets and liabilities. ENW is an economic measure of shareholders' equity and the starting point in determining available capital under the Swiss Solvency Test (SST).

EVM — Economic Value Management (EVM) is Swiss Re Group's proprietary integrated economic valuation and accounting framework for planning, pricing, reserving, and steering our business.

EVM capital — EVM capital is the capital required to support uncertainty related to estimated cash flows arising from existing underwriting and investment activities.

EVM profit — EVM profit is a risk-adjusted measure of performance that can be compared across all business activities.

Expense ratio — Sum of acquisition costs and other operating costs and expenses, in relation to premiums earned.

G-SIIs — Globally systemically important insurers.

Gross outperformance — Defined as the difference between the mark-to-market investment result and the benchmark investment result.

Gross underwriting result – new business — Gross underwriting result from new business is defined as present value of new business underwriting cash flows (eg premiums, claims, commissions, etc) before internal expenses, taxes and capital costs.

Guaranteed minimum death benefit (GMDB) — A feature of variable annuity business. The benefit is a predetermined minimum amount that the beneficiary will receive upon the death of the insured.

Health insurance	Generic term applying to all types of insurance indemnifying or reimbursing for losses caused by bodily injury or sickness or for expenses of medical treatment necessitated by sickness or accidental bodily injury.
Incurred but not reported (IBNR)	Provision for claims incurred but not reported by the balance sheet date. In other words, it is anticipated that an event will affect a number of policies, although no claims have been made so far, and is therefore likely to result in liability for the insurer.
Insurance-linked securities (ILS)	Security for which the payment of interest and/or principal depends on the occurrence or severity of an insurance event. The underlying risk of the security is a peak or volume insurance risk.
Layer	Section of cover in a non-proportional reinsurance programme in which total coverage is divided into a number of consecutive layers starting at the retention or attachment point of the ceding company up to the maximum limit of indemnity. Individual layers may be placed with different insurers or reinsurers.
Liability insurance	Insurance for damages that a policyholder is obliged to pay because of bodily injury or property damage caused to another person or entity based on negligence, strict liability or contractual liability.
Life insurance	Insurance that provides for the payment of a sum of money upon the death of the insured, or upon the insured surviving a given number of years, depending on the terms of the policy. In addition, life insurance can be used as a means of investment or saving.
Longevity risk	The risk to which a pension fund or life insurance company could be exposed as a result of higher-than-expected payout ratios. Increasing life expectancy trends among policyholders and pensioners can result in payout levels that are higher than originally expected.
Marine insurance	Line of insurance which includes coverage for property in transit (cargo), means of transportation (except aircraft and motor vehicles), offshore installations and valuables, as well as liabilities associated with marine risks and professions.
Mark-to-market	Adjustment of the book value or collateral value of a security, portfolio or account to current fair market value.
Mark-to-market investment result	Includes net investment income, realised gains and losses and changes in unrealised gains and losses reported under the accounting principles generally accepted in the United States of America (US GAAP). In addition, it includes changes in market value of investment positions carried at amortised cost under US GAAP. It excludes the following US GAAP items: investment income from cedants, unit-linked and with-profit business and certain loans as well as minority interest and depreciation on real estate.
Market value margin	The market value margin (MVM) represents the minimum cost of holding capital after the one-year SST period until the end of a potential run-off period.
Motor insurance	Line of insurance which offers coverage for property, accident and liability losses involving motor vehicles.
Net outperformance	Defined as the gross outperformance after deducting the actual costs incurred by managing our actual investment portfolio in excess of the internal fee paid by underwriting for the purchase and maintenance of the investment portfolio replicating the best-estimate liability and backing the associated capital requirements.
Net reinsurance assets	Receivables related to deposit accounting contracts (contracts which do not meet risk transfer requirements) less payables related to deposit contracts.
Net underwriting result – new business	Net underwriting result from new business is defined as the gross underwriting result from new business net of the present value of internal expenses allocated to new business but before taxes and capital costs.
Non-life insurance	All classes of insurance business excluding life insurance.

Non-proportional reinsurance Form of reinsurance in which coverage is not in direct proportion to the original insurer's loss; instead the reinsurer is liable for a specified amount which exceeds the insurer's retention; also known as "excess of loss reinsurance".

Operating margin ratio The operating margin is calculated as operating result divided by total operating revenues. The operating result is before interest expenses, taxes and net realised gains/losses.

Operating revenues Premiums earned plus net investment income plus other revenues.

Operational risk Risk arising from failure of operational processes, internal procedures and controls leading to financial loss.

Premium The payment, or one of the periodical payments, a policyholder agrees to make for an insurance policy.

Premiums and fees Premiums and fees in the EVM income statement represent the present value of all estimated future premiums and fees on contracts written during the year. Gross premiums and fees represent premiums and fees before external retrocessions. Gross premiums and fees in the EVM income statement of the business segments also exclude retrocessions to other segments of the Group.

Premiums earned Premiums an insurance company has recorded as revenues during a specific accounting period.

Premiums written Premiums for all policies sold during a specific accounting period.

Present value of future profits (PVFP) Intangible asset primarily arising from the purchase of life and health insurance companies or portfolios.

Principal Investments and Acquisitions Principal Investments and Acquisitions is a unit of Swiss Re that manages all strategic acquisition activities of the Group as well as a portfolio of minority holdings in primarily insurance and insurance-related businesses with the goal of generating long-term value.

Product liability insurance Insurance covering the liability of the manufacturer or supplier of goods for damage caused by their products.

Professional indemnity insurance Liability insurance cover which protects professional specialists such as physicians, architects, engineers, lawyers, accountants and others against third-party claims arising from activities in their professional field; policies and conditions vary according to profession.

Profit margin Profit margin is calculated for new business, previous years' business and investment activities. The new business profit margin is the ratio of new business profit/loss to EVM capital allocated to new business over the lifetime of the business. The previous years' business profit margin is the ratio of previous years' business profit/loss to EVM capital allocated to previous years' business in the current year. Investment profit margin is the ratio of investment profit/loss to EVM capital allocated to investment activities in the current year. These ratios can be used to compare profitability across all underwriting and investment activities on a consistent, risk-adjusted basis.

Property insurance Collective term for fire and business interruption insurance as well as burglary, fidelity guarantee and allied lines.

Proportional reinsurance Form of reinsurance arrangement in which the premiums earned and the claims incurred of the cedent are shared proportionally by the cedent and the reinsurer.

Provision for capital costs Frictional capital costs provide compensation to shareholders for agency costs, costs for potential financial distress and regulatory (illiquidity) costs. Frictional capital costs include risk capital costs and funding costs. Risk capital costs are charged at 4.5% of eligible economic capital which consists of ENW and eligible hybrid debt. Funding costs are charged or credited at the legal entity level depending on the liquidity the respective legal entity uses or generates. In addition, the provision for capital costs includes an allowance for double taxation on the risk free return on capital allocated to underwriting activities.

Quota share reinsurance
Form of proportional reinsurance in which a defined percentage of the premiums earned and the claims incurred by the cedent in a specific line is reinsured for a given period. Quota share reinsurance arrangements represent a sharing of business in a fixed ratio or proportion.

Reinsurance
Insurance which lowers the risk carried by primary insurance companies. Reinsurance includes various forms such as facultative, financial, non-proportional, proportional, quota share, surplus and treaty reinsurance.

Reserves
Amount required to be carried as a liability in the financial statements of an insurer or reinsurer to provide for future commitments under outstanding policies and contracts.

Retention
Amount of risk which the policyholder or insurer does not insure or reinsure but keeps for its own account.

Retrocession
Amount of the risk accepted by the reinsurer which is then passed on to other reinsurance companies.

Return on equity
Net income as a percentage of time-weighted shareholders' equity.

Return on investments
Investment-related operating income as a percentage of invested assets. Invested assets include investments, securities in transit, certain financial liabilities and exclude policy loans, cash and cash equivalents, as well as assets related to securities lending, repurchase agreements and collateral balances.

Risk
Condition in which there is a possibility of injury or loss; also used by insurance practitioners to indicate the property insured or the peril insured against.

Risk management
Management tool for the comprehensive identification and assessment of risks based on knowledge and experience in the fields of natural sciences, technology, economics and statistics.

Running yield
Net investment income on long-term fixed income positions and loan investments, including coupon income and amortisation, as a percentage of the average market value of the long-term fixed income portfolio and carrying value of loan investments.

Securitisation
Financial transaction in which future cash flows from financial assets (or insurable risks) are pooled, converted into tradable securities and transferred to capital market investors. The financial assets are commonly sold to a special-purpose entity, which purchases them with cash raised through the issuance of beneficial interests (usually debt instruments) to third-party investors.

Solvency II
Regulatory framework for EU re/insurance solvency rules. Solvency II is a comprehensive, economic and risk-based regulation and includes prudential requirements on solvency capital, risk modelling, supervisory control and disclosure.

SST risk-bearing capital
The SST risk-bearing capital (SST RBC) is the amount of capital that is available to protect the policyholders of an entity in case of a large and unexpected adverse event.

SST target capital
Amount of capital that is required to support the risks assumed by an entity. It is based on the entity's total risk.

Stop-loss reinsurance
Form of reinsurance that protects the ceding insurer against an aggregate amount of claims over a period, in excess of either a stated amount or a specified percentage of estimated benefit costs. An example of this is employer stop-loss (ESL) coverage, which is used by US companies to cap losses on self-funded group health benefit programmes. The stop-loss can apply to specific conditions or aggregate losses.

Surety insurance
Sureties and guarantees issued to third parties for the fulfilment of contractual liabilities.

Surplus reinsurance
Form of proportional reinsurance in which risks are reinsured above a specified amount.

Swiss Solvency Test (SST)
An economic and risk-based insurance regulation, similar to the objectives of Solvency II to which all insurance and reinsurance companies writing business in Switzerland are subject.

Tail VaR
See "Value at risk".

Top-down investment strategy approach
An investment strategy process which analyses trends in the global economy and the associated impact on financial markets to assess the overall financial market outlook as well as their implications for various asset classes and risk exposures.

Total contribution to ENW
Total contribution to ENW is the total return generated for shareholders and includes the release of capital costs. Total contribution to ENW is therefore not a risk-adjusted performance measure.

Total on-balance sheet senior and subordinated debt and contingent capital, including drawn LOCs, divided by total capitalisation.

Treaty reinsurance
Participation of the reinsurer in certain sections of the insurer's business as agreed by treaty, as opposed to single risks.

Underwriting result
Premiums earned less the sum of claims paid, change in the provision for unpaid claims and claim adjustment expenses and expenses (acquisition costs and other operating costs and expenses).

Unearned premium
Part of written premium (paid or owed) which relates to future coverage and for which services have not yet been provided; this is carried in an unearned premium reserve and may be refundable if the contract is cancelled before expiry.

Unit-linked policy
A life insurance contract which provides policyholder funds linked to an underlying investment product or fund. The performance of the policyholder funds is for the account of the policyholder.

US GAAP
United States generally accepted accounting principles.

Value at risk (VaR)
Maximum possible loss in market value of an asset portfolio within a given time span and at a given confidence level. 99% VaR measures the level of loss likely to be exceeded in only one year out of a hundred, while 99.5% VaR measures the loss likely to be exceeded in only one year out of two hundred. 99% tail VaR estimates the average annual loss likely to occur with a frequency of less than once in one hundred years.

With-profit policy
An insurance contract that has additional amounts added to the sum insured, or paid/credited separately to the policyholder as a bonus, which result from a share of the profit generated by the with-profits insurance funds, including these funds' interests in other blocks of business.

Some of the terms included in the glossary are explained in more detail in Note 1 to the Group financial statements.

Swiss Re uses some of the term definitions provided by the glossary of the International Association of Insurance Supervisors (IAIS).

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 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, and historically high inflation rates;
- the frequency, severity and development of, and losses associated with, insured claim events, particularly natural catastrophes, man-made disasters, pandemics, including the coronavirus (“COVID-19”), social inflation litigation, acts of terrorism or acts of war, including the ongoing war in Ukraine, 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 ability to comply with standards related to environmental, social and governance (“ESG”), sustainability and corporate social responsibility (“CSR”) matters and to fully achieve goals, targets, or ambitions 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;
- policy renewal and lapse rates;
- 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;
- strengthening or weakening of foreign currencies;
- reforms of, or other potential changes to, benchmark reference rates;
- failure of the Group's hedging arrangements to be effective;
- significant investments, acquisitions or dispositions, and any delays, unforeseen liabilities or other costs, lower-than-expected benefits, impairments, ratings action or other issues experienced in connection with any such transactions;
- extraordinary events affecting the Group's clients and other counterparties, such as bankruptcies, liquidations and other credit-related events;
- changing levels of competition;
- the effects of business disruption due to terrorist attacks, cyberattacks, natural catastrophes, public health emergencies, hostilities or other events;
- limitations on the ability of the Group's subsidiaries to pay dividends or make other distributions; and
- operational factors, including the efficacy of risk management and other internal procedures in anticipating and managing the foregoing risks.

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

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

Note on risk factors

The operations, investments and other activities of Swiss Re Ltd ("SRL") and its subsidiaries (collectively, the "Group" or "Swiss Re") are subject to a range of risks that could adversely impact the Group's business, financial condition, results of operations, liquidity and cash flows.

General impact of adverse market conditions
Swiss Re's operations as well as its investment returns are subject to conditions in the financial markets and macroeconomic factors. Financial, credit and foreign exchange markets are experiencing continued periods of volatility reflecting a range of political, geopolitical, economic and other uncertainties, some of the more significant of which are inter-related, including high inflation.

For example, higher replacement costs may lead to higher replacement costs than anticipated following a claim. In Property & Casualty Reinsurance, due to inflation and supply chain issues, costs to rebuild and repair structures have significantly increased and, as a result, there is a risk that Swiss Re's reserves may not be adequate to address such claims in the future.

Further adverse developments or the continuation of adverse trends that, in turn, have a negative impact on financial markets and economic conditions, could limit the Group's ability to access the capital markets and bank funding markets, could adversely affect the ability of counterparties to meet their obligations to the Group and could adversely affect the confidence of the ultimate buyers of insurance and reinsurance.

Any of the foregoing factors, developments and trends could have a material adverse effect on the Group's investment and overall results, make it difficult to determine the value of certain assets in the Group's portfolio, make it more difficult to acquire suitable investments to meet its risk and return criteria and otherwise have a material adverse effect on its business and operations.

Impact of the military conflict in Ukraine and other geopolitical developments
The ongoing military conflict in Ukraine, sanctions, and other potential impacts on the global economic environment and currencies may cause demand for the Group's products to be volatile (particularly in Europe), cause abrupt changes in the Group's customers' buying patterns, result in higher than usual insurance claims (including in relation to aviation insurance claims), interrupt the Group's ability to supply products to this region or to fulfil contractual obligations or limit customers' access to financial resources, which may impact such customers' ability to satisfy obligations to the Group. In the event geopolitical tensions fail to abate or deteriorate further, additional sanctions may be enacted, which may adversely impact the global economy and supply chain, banking and monetary systems, markets or customers for Swiss Re's products. This could adversely affect Swiss Re's results or operations.

Sustainability and environmental, social and governance ("ESG") activities and disclosures
Swiss Re's investors, shareholders, business partners, customers and other third parties, including regulators and public authorities, are increasingly focused on environmental, social and governance ("ESG"), sustainability and corporate social responsibility ("CSR") endeavours and reporting. Swiss Re's statutory ESG reporting requirements will be due for the first time in 2024 with respect to the 2023 financial year. In addition, Swiss Re has a Group Sustainability Strategy and a set of policies addressing ESG, sustainability, and CSR and is a founding member of the UN-convened Net-Zero Asset Owner Alliance and the UN-convened Net-Zero Insurance Alliance (together, the "Alliances"). As a founding member of the Alliances, Swiss Re demonstrated its commitment to transition its investment and underwriting portfolios to net-zero greenhouse gas emissions by 2050 and Swiss Re played an instrumental role in the development of the methodology for insurance associated emissions and the development of the target setting protocols, which in turn will be used by members of the Alliances as a basis to set independently sustainability targets.

Net zero means that for every tonne of greenhouse gas emissions that cannot be avoided, an equivalent amount of CO_2 needs to be removed from the atmosphere and stored permanently.

Swiss Re may be subject to greater scrutiny when it comes to its own CSR, ESG and/or sustainability endeavours and reporting and commitment to transition its investment and underwriting portfolios to net-zero greenhouse gas emissions by 2050. If Swiss Re does not adapt to or comply with the evolving investor, shareholder, business partner or third party, including regulators and public authorities, expectations and CSR, ESG and/or sustainability recommendations, standards, norms, metrics or regulatory requirements and/or does not meet its CSR, ESG and/or sustainability targets, goals and/or ambitions, Swiss Re can be perceived to have not responded appropriately to CSR, ESG and/or sustainability recommendations, standards, norms, metrics or regulatory requirements. Furthermore, Swiss Re may suffer from reputational damage and/or litigation or regulatory proceedings, which could result in its financial condition, results of operations, business and prospects being materially and adversely affected. In addition, changes and uncertainty in relation to policies or regulations regarding sustainability, ESG or CSR matters as well as the fragmentation of ESG legislation globally, may result in potential litigation, higher regulatory and compliance costs and increased capital expenditures, which could result in Swiss Re's financial condition being materially and adversely affected.

In addition, Swiss Re's investors, shareholders, business partners and third parties look to ESG rating systems, or disclosure frameworks that have been developed by third party groups to allow comparisons between companies on ESG factors as they evaluate investment decisions as well as company disclosures. Swiss Re does not participate in all of the available rating systems, and would not necessarily score well in all of the available ratings systems. Further, the criteria used in these ratings systems change frequently, and Swiss Re cannot guarantee that it will be able to score well as criteria change. Failure to participate in certain third party ratings systems, failure to score well in those ratings systems or failure to provide certain ESG disclosures could result in reputational damage, which could result in Swiss Re's financial condition, results of operations, business and prospects being materially and adversely affected.

Risk of unexpected and unintended issues related to claims and coverage, including social inflation

As industry practices and legal, judicial, social and other environmental conditions change, unexpected and unintended issues related to risk of claims and coverage developing in an adversely different manner than originally anticipated may continue to emerge. Such issues have adversely affected, and may in the future adversely affect, the Group's business by either requiring it to extend coverage beyond its underwriting intent or by increasing the number or size of claims against the Group. For example, the trend of social inflation has increased liability claims against the Group in recent years. There has been an increase in severity of awards and settlements affecting excess and umbrella layers, particular in the US, as well as an increase in commercial automotive and general liability claims. The Group has continued to pro-actively strengthen its reserves and has considered the latest information and outlook related to such claims, including in relation to economic and social inflation when making its reserve decisions. In addition, the Group closely monitors the intersection between social inflation, economic inflation and loss trend and intends to adjust its pricing accordingly. The Group intends to continue to manage its exposure to large corporate risks in line with its cautious view on social inflation. Despite the Group's various measures to address these issues, there remains uncertainty on how these unintended issues related to claims and coverage may impact the Group's business. If the Group's reserving and pricing is not adequate to cover these issues, there could be an additional adverse effect for the Group's business, financial condition or results of operations.

Swiss Re's group structure continues to evolve
In February 2023, Swiss Re announced plans to streamline its organisational structure. The reorganisation, which aims to simplify structures, improve efficiency and client experience, will be effective 3 April 2023, subject to regulatory approval. The current Reinsurance Business Unit will be split into Property & Casualty Reinsurance and Life & Health Reinsurance, with each having full authority over the respective underwriting and claims management processes. Urs Baertschi, currently Chief Executive Officer Reinsurance EMEA, will lead Property & Casualty Reinsurance, while Paul Murray, currently CEO Reinsurance Asia Pacific, will lead Life & Health Reinsurance. Moses Ojeisekhoba, currently CEO Reinsurance, will take over leadership of Global Clients and Solutions. This Business Unit will contain the client management teams servicing Swiss Re's global reinsurance clients, Public Sector Solutions, iptiQ and Reinsurance Solutions. Corporate Solutions continues as a Business Unit under the leadership of Andreas Berger.

The reorganisation may present financial, managerial and operational risks, including an interruption of, or loss of momentum in the activities of one or more of Swiss Re's Business Units. In addition, it is not guaranteed that the reorganisation will simplify Swiss Re's structures, improve efficiency and client experience and the reorganisation process may prove to be more complex, time consuming and require substantially more resources than originally anticipated. Any delays or difficulties encountered in connection with the reorganisation, could result in Swiss Re's financial condition, results of operations, business and prospects being materially and adversely affected.

Insurance, operational and other risks
As part of the Group's ordinary course operations, the Group is subject to a variety of risks, including risks that reserves may not adequately cover future claims and benefits; risks that catastrophic events (including natural catastrophes, such as hurricanes, cyclones, tornadoes, windstorms, hail storms, wildfires, floods and earthquakes, as well as extreme space weather events such as solar storms and geomagnetic activity, and man-made disasters, such as acts of terrorism, cyberattacks and other disasters such as explosions, industrial accidents and fires, as well as diseases, pandemics, epidemics and humanitarian crises) are inherently unpredictable in terms of both their frequency and severity and have exposed, and may continue to expose, the Group to unexpected large losses (and related uncertainties in estimating future claims in respect of such events, such as Hurricane Ian, which made landfall in Florida in September 2022); changes in the insurance industry that affect ceding companies, particularly those that further increase their sensitivity to counterparty risk; competitive conditions (including as a result of consolidation and the availability of significant levels of alternative capacity); cyclicality of the industry; risks related to emerging claims and coverage issues (including, in particular, social inflation); macro developments giving rise to emerging risks, such as climate change and technological developments (including greater exposure to cyber risks, where accumulation risk is yet to be fully understood, which could have a range of consequences from operational disruption, to loss of proprietary or customer data, to greater regulatory burdens and potential liability); risks arising from the Group's dependence on policies, procedures and expertise of ceding companies; risks related to investments in emerging markets; and risks related to the failure of, or attacks directed at, the Group's operational systems and infrastructure, including its information technology networks and systems. Any of the foregoing, as well as the occurrence of future risks that the Group's risk management procedures fail to identify or anticipate, could have a material adverse effect on the Group, and could also give rise to reputational risk.

Financial and capital market risk
Volatility and disruption in the global financial markets could expose the Group to significant financial and capital markets risk, including changes in interest rates, credit spreads, equity prices and foreign currency exchange rates, which may adversely impact the Group's financial condition, results of operations, liquidity and capital position. The Group's exposure to interest rate risk is primarily related to the market price and cash flow variability associated with changes in interest rates. In general, a higher interest rate environment is beneficial to the insurance and reinsurance industries, supporting earnings capacity via higher investment income. Additionally, an increase in interest rates results in an increase in the Group's Swiss Solvency Test ratio, while reducing US GAAP shareholders' equity. Exposure to credit spreads primarily relates to market price and cash flow variability associated with changes in credit spreads. When credit spreads widen, the net unrealised loss position of the Group's investment portfolio can increase, as could other-than-temporary impairments.

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

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

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

In the future, the Group could be involved in investigations and regulatory proceedings, which could result in adverse judgments, settlements, fines and other outcomes. These investigations and proceedings could relate to insurance or reinsurance matters, or could involve broader business conduct rules, including those in respect of market abuse, bribery, money laundering, sanctions, competition law, data protection and privacy or ESG, CSR and/or sustainability issues. The Group also is subject to audits and challenges from time to time by tax authorities, which could result in increases in tax costs, changes to internal structures and interest and penalties. Tax authorities may also actively pursue additional taxes based on retroactive changes to tax laws. The Group could be subject to risks arising from alleged, or actual, violations of any of the foregoing, and could also be subject to litigation or enforcement actions arising from potential employee misconduct, including non-compliance with internal policies and procedures, negligence and malfeasance, such as undertaking or facilitating cyber-attacks on internal systems. Substantial legal liability could materially adversely affect the Group's business, financial condition or results of operations or could cause significant reputational harm, which could seriously affect its business.

Changes in the legal, regulatory or tax environment
Swiss Re and its subsidiaries operate in a highly regulated environment, which continues to change over time. The regulatory regimes to which members of the Group are subject have changed significantly in recent years and are expected to continue to evolve. While some regulation is national in scope, the global nature of the Group's business means that its operations are subject in effect to a patchwork of global, national and regional standards. Swiss Re and its subsidiaries are subject to group supervision and Swiss Re's subsidiaries are also subject to applicable regulation in each of the jurisdictions in which they conduct business, particularly Switzerland, the United States, Luxembourg and Singapore. Swiss Re, as well as its Swiss-regulated entities, is subject to the Swiss Solvency Test and, through its legal entities and branches organised in the European Economic Area ("EEA"), Solvency II.

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

On the international level, certain large insurance companies were designated as global systemically important insurers ("G-SIIs") and reinsurance companies faced potential designation as G-SIIs. While the Financial Stability Board ("FSB") in consultation with the International Association of Insurance Supervisors ("IAIS") decided to discontinue the annual identification of G-SIIs, the IAIS will assess systemic risks through the holistic framework for systemic risk that entered into force in the beginning of 2020. The framework embraces an enhanced set of policy measures targeted at the exposures and activities that can lead to systemic risks from the insurance sector. The Group cannot predict what additional regulatory changes will be implemented as the IAIS systemic risk process evolves and what any such changes may mean for how the Group is structured in any particular jurisdiction and how aspects of its business may be affected.

Current discussions on domestic systemically important insurers ("D-SIIs") are ongoing in certain jurisdictions.

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

The Group can neither predict which legislative and/or regulatory initiatives will be enacted or promulgated, nor their scope and content, their date of enactment or their implications for the industry, in general, and for the Group, in particular. The Group may be subject to changes in views of its supervisors in respect of the models that the Group uses for capital and solvency purposes, and could be adversely affected if, for example, it is required to use standard models rather than internal models. Generally, legal and regulatory changes could have a material impact on the Group's business. Notwithstanding the departure of the United Kingdom from the EU single market and customs union, continued uncertainty regarding the ways in which the future relationship between the United Kingdom and the European Union will evolve could also impact the legislative and/or regulatory regimes to which the Group is subject (including Solvency II), both in the United Kingdom and in the European Union.

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

Risks relating to credit rating downgrades
Ratings are an important factor in establishing the competitive position of (re)insurance companies. Third party rating agencies assess and rate the financial strength of (re) insurers, such as Swiss Re. These ratings are intended to measure a company's ability to repay its obligations and are based upon criteria established by the rating agencies. Ratings may be solicited or unsolicited.

The Group's solicited ratings reflect the current opinion of the rating agencies with whom we maintain an interactive rating relationship for the purpose of solicited ratings. One or more of the Group's ratings could be downgraded or withdrawn in the future, or the Group may decide to give up such rating voluntarily. In addition, unsolicited ratings may also be downgraded or withdrawn, such as the downgrade in April 2020 of unsolicited insurer financial strength and long-term issuer default ratings assigned to various entities within the Group. Rating agencies may, in their sole discretion, increase the frequency and scope of ratings reviews, revise their criteria or take other actions that may negatively impact the Group's ratings and/or the ratings of its legal entities, which it cannot predict. In addition, changes to the process or methodology of issuing ratings, changes in regulation, or the occurrence of events or developments affecting the Group, could adversely affect the Group's existing ratings or make it more difficult for the Group to achieve improved ratings which it would otherwise have expected. In particular, it is possible that the Group's ratings could be negatively affected by a range of current challenges faced by the Group and the industry, such as the challenging market environment, the level of natural catastrophe losses, underwriting performance, changes in senior management, economic trends and financial market performance on the Group. Any of the foregoing, or a combination of the foregoing, could have a negative impact on the Group's business.

As financial strength ratings are a key factor in establishing the competitive position of (re)insurers, a decline in ratings of Swiss Re and/or the ratings of its key rated legal entities could make (re)insurance provided by the Group less attractive to clients relative to (re)insurance from competitors with similar or stronger ratings. A decline in ratings could also cause the loss of clients who are required by either policy or regulation to purchase (re)insurance only from (re)insurers with certain ratings, or whose confidence in the Group is otherwise diminished. Certain larger (re)insurance and derivative contracts may contain terms that would allow the ceding companies or counterparties to terminate the contract if the Group's ratings or those of its subsidiaries are downgraded beyond a certain threshold. Furthermore, ratings directly impact the availability and terms of unsecured financing (potentially impacting both the Group's ability to rollover existing facilities and/or obtain new facilities) and declines in the Group's ratings or the ratings of legal entities within the Group could also obligate the Group to provide collateral or other guarantees in the course of its business or trigger early termination of funding and/or derivative arrangements. As a ratings decline could also have a material adverse impact on the Group's costs of borrowing or ability to access the capital markets, the adverse implications of a downgrade could be more severe.

Coronavirus
The global spread of the coronavirus and the disease it causes ("COVID-19"), and the actions taken to slow the spread of the pandemic, have had an adverse impact on communities, social and business interactions, economic activity and economies across the globe. The global economy remains exposed to developments around the coronavirus. New developments, such as new strains of the virus which risk becoming vaccine-resistant, consequences brought by long-COVID 19, or recurring spreads of COVID-19, like the spread of COVID-19 that has taken place in China following the easing of strict lockdown measures in December 2022, could pose threats to the global economy. Nevertheless, the global insurance markets (as measured by premium growth) were less severely impacted by COVID-19 in 2022 than expected, attributed to digitalization, and increased consumers' risk awareness and so on. However, the global insurance industry remains exposed to adverse claims with regards to additional health care costs and higher mortality.

Legal challenges have been brought in a variety of jurisdictions, including, most notably, test cases brought in the United Kingdom by the Financial Conduct Authority, in respect of which the UK Supreme Court largely found on appeal in favour of holders of business interruption policies although certain issues remain to be decided and are pending in the UK courts. In Australia, a test case found largely in favour of insurance companies. Legal actions on a number of pandemic-related claims continue in a number of jurisdictions.

Many pandemic-related developments continue to interact with long-term trends on the insurance industry. It also remains to be seen how public-private partnership initiatives may evolve to address future pandemics.

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

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

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

The Group includes in its annual report a separate section in respect of its results, including financial statements, prepared in accordance with the Group's proprietary economic value management ("EVM") principles ("EVM section"). Financial information included in the EVM section contains non-GAAP financial measures. The EVM principles differ significantly from US GAAP and, accordingly, the Group's results prepared in accordance with US GAAP will differ from its EVM results, and those differences could be material. The Group's annual EVM results can be more volatile than the US GAAP results because, among others, assets and liabilities are measured on a market consistent basis, profit recognition on new contracts is recognised at inception rather than over the lifetime of the contract, and life and health actuarial assumptions are on a best estimate basis as opposed to generally being locked-in. The Group's EVM financial statements should not be viewed as a substitute for the Group's US GAAP financial statements.

Credit risk
If the credit markets were to deteriorate, the Group could experience losses. Changes in the market value of the underlying securities and other factors impacting their price could give rise to market value losses. The Group could also face write-downs in other areas of its portfolio, including other structured instruments, and the Group and its counterparties could face difficulties in valuing credit-related instruments. Differences in opinion with respect to valuations of credit-related instruments could result in legal disputes among the Group and its counterparties as to their respective obligations, the outcomes of which are difficult to predict and could be material. The Group is also subject to credit and other risks in its credit business, including reliance on banks that underwrite and monitor facilities in which the Group participates and potential default by borrowers under those facilities.

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

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

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

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

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

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Corporate calendar

2023

12 April 2023
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4 May 2023
First quarter 2023 key financial data

4 August 2023
Half-year 2023 results

3 November 2023
Nine months 2023 key financial data

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